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**DEVELOPMENT AND VALIDATION OF PERSONALITY  
TRAITS ASSESSMENT SCALE FOR CADRE AND  
EX-CADRE CIVIL SERVICE EXECUTIVES**

**By  
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**A dissertation submitted to the**

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National Institute of Psychology  
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Quaid-i-Azam University, Islamabad**

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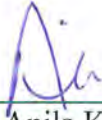
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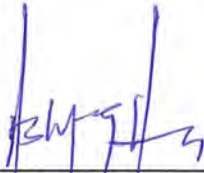
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(Dr. Anila Kamal)

*Supervisor*

**Dedicated to**

**My parents and well wishers**

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**REHANA SHUJAAT**



## ABSTRACT

*The present research aimed to explore similarities or differences in personality traits of executives working in seven selected CSS occupational groups (cadre). These are Commerce and Trade Group (CTG), Customs and Excise Group (CEG), District Management Group (DMG), Foreign Service of Pakistan (FSP), Income Tax Group (ITG), Pakistan Audit and Accounts Service (PAAS), and Police Service of Pakistan (PSP) and also to see the differences in personality traits of cadre and ex-cadre executives which include Medical, Defence, and Education professions. To achieve the objectives an instrument was developed and validated on Pakistani Civil Service executives. The research was carried out in two parts. The Part-I of the research consisted of indigenous development of the measure named Personality Traits Assessment Scale (PTAS). The non availability of an indigenous instrument to explore the personality traits of civil service executives working in selected seven most preferred occupational groups provided a rationale for the development of PTAS. This process was carried out in four phases with independent samples. 45 traits/items with three factors were extracted through exploratory factor analysis by using principal component analysis with Varimax Rotation. The extracted factors were Leadership Ability, Integrity, and Emotional Maturity. Results of the study suggest that PTAS possesses sufficient reliability. In Part-II of the study, the Phase-I was based on validation and pilot testing of the instrument. Psychometric properties i.e. reliability and construct validity of the instrument developed in part-I was established (N = 103). Big five Mini Markers Set (Saucier, 1994) was used to determine convergent validity and Procrastination Scale originally developed by Tuckman (1991) and its Urdu version (Fatimah, 2001) was used to determine*

*discriminant validity of PTAS. As a result a reliable and valid instrument was developed. In Part II, Phase-II Main study was conducted. It was carried out to provide additional information on the convergent validity of PTAS. For this purpose other construct i.e., Managerial Potential Scale (MP) of California Psychological Inventory (CPI; Gough, 1994) was used. Purpose of this part was primarily to explore similarities or differences in personality traits of executives working in seven CSS occupational groups (cadre) and to see the differences in personality traits of cadre and ex-cadre (Medical, Defence, and Education professions) executives and the effect of training and relationship between personality traits and demographic variables i.e., gender, age, education, and job experience. Differences were assessed through a series of statistical analysis of correlations, t test and One Way Analysis of variance (ANOVA). As it was an exploratory study and no before hand assumptions were made regarding the personality traits of executives. Findings of the study indicate that non significant differences in personality traits of executives, both within occupational groups and between other occupations, were observed on any of the instruments used. Result of this study show general agreement on the desirable traits of these groups and confirms that these personality traits are common which are required for all executives for working at responsible positions. This study offers an insight into personality traits of Civil Service executives of cadre (CSS occupational groups) and ex-cadre (Medical, Defence, and Education) at the time of selection.*

# **INTRODUCTION**

## INTRODUCTION

The study of personality historically and has remained an area of interest since time in memoriam. Different issues and aspects attached to this field have been studied by various researchers such as politics (Ashton, Kushner, & Siegel, 2008; Schoen & Schumann, 2007); aviation (Ashraf, 2004; Grant, Erksen, Marquis, Orre, Palinkas, & Suedfeld, 2007); education (Handley & Bledsoe, 1968; Hotaman, 2010; Malikow, 2006; Moon & Illingworth, 2005; Ozel, 2007); occupations (DuttaRoy, 1994a, 1994b, 1995a, 1995b; Saeed & Munaf, 1996); entrepreneurship (Zhao & Seibert, 2006); police personality (Glasner, 2005; Gould, 2000). It is an established reality that personality makes a person's behavior different from the behavior which other people would manifest in comparable situations (Fatima & Ahmed, 2008; Grum, Kobal, Arneric, Horvat, Zenko, & Dzeroski, 2006; Robinson, Demetre, & Corney, 2010; Williamson, Penbertson, & Lounsbury, 2008). It is main assumption underlying the concept of personality that there are individual differences in behavior, which are large enough to warrant investigation, people respond to the same situation in different ways. Individual differences in responding to the same situation are assumed to be the product of variations in personality. An individual's personality is a set of degrees falling along many behavioral dimensions, each degree corresponding to a trait however, there are individual differences in set of traits that people possess such as no two personalities are exactly alike (Allen, 1997).

Personality explains behavioural tendencies because individuals' actions are not perfectly consistent with their personality profile in every situation. Personality traits are less evident in situations where social norms and other conditions constrain

one's behaviour (McShane & Von Glinow, 2000). The behavior-in-situation combinations are best conceived of as expressions of traits (DeRaad, 2005). For example, a person who frequently shows compliance (behavior) upon reasonable requests (situation) can rightly be considered cooperative (trait). The trait cooperative stands for behavior-in-a-situation as formulated by Johnson (1999), both behavior and context are tacitly built into the socially shared meaning of the trait word.

Traits are defined broadly, in terms of generalized determining tendencies of a personalized character they may include interests, values, and philosophies of life, habits and characteristic ways of reacting to situations (DeRaad, 2000; Guilford, 1959). People differ from each other in an almost infinite number of ways. A fundamental question for personality psychology is thus to develop an adequate descriptive taxonomy of how people differ (Revelle, 2000).

People with similar characteristics tend to gather together that lays the basis for building cooperation and cohesiveness among them. Findings suggests a strong positive relationship between the degree of similarity among individuals on traits such as personality, attitudes and the quality of their interpersonal experiences with one another (Byrne, as cited in Giberson, Resick, & Dickson, 2005).

Personality is a significant variable of behavior and includes a large number of qualities which cannot be changed easily. It is influenced by several factors such as family characteristics, learning, social influences, and psychological features (Mishra, 2001).

Some personality researchers (John & Gosling, 2000) consider human behavior traits as the major units of personality. Personality traits are consistent patterns in which individuals behave, feel, and think. For example, when an individual is described as "*kind*", it means that he tends to act in a kind manner over time and

across situations whether with the elderly neighbor or an animal. As implied by this definition traits can serve three major functions: firstly it may be used to summarize, secondly to predict and thirdly to explain a person's conduct. Attributing the trait "*kind*" to a person summarizes a history of many different acts of kindness. Traits suggest that the explanation for a person's behavior will be found in the individual rather than in the situation; a kind person will act kindly even when there is no situational pressure or external reward for doing so, thus suggesting some internal process or mechanism that is producing the behavior. This analysis of the trait concept is consistent with causal attribution theory which views traits as stable and internal and distinct from states that are temporary and externally caused (John & Gosling, 2000).

Personality traits have influenced organizationally relevant behaviors; from the interview success, performance, leadership, and boundary spanning ( Barrick & Mount, 1991; Caldwell & Burger, 1998; House & Woycke, 1991). Allport and Odbert (1936) defined personality traits as "generalized and personalized determining tendencies –consistent and stable modes of an individual's adjustment to his environment".

At the core of modern personality research is a hierarchical framework referred to as the five-factor model of personality - "Big Five" studies ( Digman, 1990, McShane & Von Glinow, 2000) have reported that certain personality traits predict certain work related behavior, stress reactions and emotions fairly well. Scholars have reintroduced the idea that effective leaders have identifiable traits and that personality explains some of a person's positive attitudes and life happiness. Most important is that personality traits seem to help people find the jobs that best suit

their needs. Many organizations use personality tests to help them to become more aware of themselves and find better career directions.

Within organizations, personality similarity may facilitate social integration among members (O'Reilly, Caldwell, & Barnett, 1989), reduce role conflict and ambiguity (Tsui & O'Reilly, 1989; Turban & Jones, 1988).

Various studies on relationship of personality traits and others variables have established substantive relations between personality traits and occupational career success. Studying the personality traits is essential from the perspective of the career decision process. Personality provides two important aspects, one is suitability - matching of a person's personality with his/her chosen vocational preference and second- personality which is related to traits essential for working in specific occupational groups /services to function better in the profession.

### **Personality and Occupation**

Specific occupations attract people with similar personality characteristics (Brown, Brooks, & Associates, 1990; Cattell, Eber, & Tatsuoka, 1998; Holland, 1964; Pietrofesa & Splete, 1975). The objective of personality study is to guide employees towards proper behavior in an organization. Different employees have varied characteristics. A particular type of personality is needed for a particular job performance. It is therefore essential to measure personality characteristics for the proper placement of an employee in a suitable job as per his personality features.

Personality and occupations affect each other. There is no one type of accountant, hockey coach or salesman, instead members of each occupation tend to have 'family resemblances, in how they act and even look. This 'family resemblance'

is because our physical attributes and personality traits interact with our occupations. It is generally recognized that people's personalities and interests can influence their work performance and adjustments in their jobs. Individuals with certain personality patterns and interests may be more inclined to look for and do certain types of jobs as it is believed that there is a theoretical relationships between personality and professional preferences (Malik, 2001).

According to Roylesberg (1944), any occupation which has a variety of specialties in it, is perceived in varying ways by those who are planning to join it and these differences are associated with personality traits. Job choice is affected by personality e.g., outgoing people are more likely to go into sales and artists are found to possess high degree of creative intellectual ability and they excel in that field if they move in the right direction. Biologists and Physicist work with more details and essentials because they are like that by nature. It is observed that there are great differences in the personalities of people belonging to different professions (Malik, 2001).

The association of identifiable personality characteristics with certain occupations has been a subject of research for a number of years e.g., Holland (1964, 1973) demonstrated that the choice of occupation is dependent upon personality type. Omundson, Schroeder, and Stevens (1996, 1997) studied various aspects involving the relationships between ethnicity, gender, job satisfaction and the characteristics termed Type-A Personality. A myriad of factors can influence an individual's occupational choice. Among these variables are abilities, interests, personal resources, general economic conditions, parental models, and cultural pressures. Not only tangible factors (e.g., salary range) but also personal preferences (e.g., working alone versus interacting with others extensively) can affect occupational choice. In fact,



vocational guidance counselors typically endorse the assumption that personal career development should relate to an individual's self-awareness, behaviors, and attitudes. In other words, self-understanding can be vital to an individual's awareness of why a particular vocation may or may not be personally fulfilling (Kroll, Dinklage, Lee, Morley, & Wilson, 1970).

One of the most venerable, but least well-substantiated, hypotheses in vocational psychology has been that occupations differ in the personalities of their members. The reason that this hypothesis has been so viable is probably twofold: First, widely held cultural stereotypes of occupations, such as the meek accountant and the aggressive salesman, tend to support its credibility; and, second, some significant differences between occupations on measures of personality have been found. As with studies of occupational differences in aptitudes and interests, however, those of personality indicate that occupations are much more similar than they are different (Crites, 1969).

Review of literature illustrates that over a hundred studies were conducted to see the personality profile differences/similarities in different occupations. The general approach was to compare the personality profile of individual working in one occupation to other e.g., profile of influential science teachers, regular science teachers, and science research students, (Handlery & Bledsoe, 1968) profile differences between Military and Civilian Instructors (May, 1973), occupational profiles on 16PF Questionnaires (Cattell, Day, & Meeland, 1956). Vocational profiles offer valuable assistance to educators and employers in vocational guidance and professional development. Personality factors have been linked to specific occupations including: academic professions, psychiatrists, technicians, medical personnel, and social workers (Cattell, 1989; Holland, 1973, 1985). Indian scientist

and researcher (Phodke, 1968), police officers (Cooper, Robertson, & Sharman, 1986), police candidates (Lorr & Stroock, 1994).

Occupational stability assessments have been in use for number of decades. While they were very strong during the fifties and sixties, when different organizations realized the necessity of ensuring a good match between the employee and the job if performance was to be efficient. Assessments are now based upon a comparison between people's obtained profiles as determined by the assessments and a set of profiles proven to be effective for the job.

Every individual has abilities, interests, traits and other characteristics, which if he/she knows ahead in professional life can make him / her happier and more effective worker and a useful citizen, would help to utilize his potential in a better way. The relationship between personality and vocation was described by Costa, McCrae, and Holland (1984) when they stated vocational interests are strongly related to personality.

An Occupational selection that has become important in the modern age; one major area has been the study of persons in different occupations, for instance, teachers (Gough, Durlinger, & Hill, 1968); police officers (Hogan, 1971; Pugh 1985); police personality (Glasner, 2005; Gould, 2000) Personality traits of individuals in different specialties of librarianship (Williamson, Pemberton, & Lounsbury, 2008); personality traits in minors (Grum, Kobal, Arneric, Horvart, Zenko, & Dzeroski, 2006); and effect of personality on executive career success (Boudreau, Boswell, & Judge, 2001);

The use of occupational assessment is not limited to a certain type of employee, such as production or skilled trade's workers. They have been found to be extremely effective right across the spectrum of employees. Many studies have

recently become available on measures as predictors of achievement in a variety of specialist professional schools such as teacher training, computer programming, nursing, etc. Between 1950 and 1969 the contributions of various psychologists working with 16PF (Cattell, 1968) have enabled to organize information on sixty occupational profiles. Research is rapidly establishing profile types for various clinical diagnostic and prognostic groups for occupation, etc. Research on teacher personality is based on the assumption that the teacher as a person is a significant variable in the teaching-learning process. Personality influences the behavior of the teacher in diverse way such as interaction with students, method selected, and learning experiences chosen (Murray, 1972).

Teachers are the ones who influence the student. Most studies up to now have shown that the personality of a teacher surely affect the students. Studies also show that students while evaluating their teachers pay more attention to their personalities than their professional characteristics (Lewis, 2000). Gruickshank, Jenkins, and Metcalf (2003) reported that effective teachers are enthusiastic, have warmth and possess a sense of humor.

Malikow (2006) evaluated teacher's effectiveness in order to ascertain the grade level, subject and characteristics of exceptionally effective teachers as reported by students. Characteristics most often cited by students were sense of humour, enthusiastic, creative, caring, flexible, approachable, dedicated, practical, optimistic, inspiring, energetic, patient, confident, honest, insightful, and moral.

Ozel (2007) observed that teachers with different personalities affect their students in different ways. The personal characteristics of teacher play a significant role in determining the limits of his studies and affect his teaching experiences.

## Personality Traits and Job Performance

Research on Personality traits/profiles has focused on the notion that individuals with certain personality traits perform better in specific careers. For example students, nurses that are more successful during training have specific personality profiles (Bruhn, Bunce, & Greacer, 1978).

Satterwhile, Fleenor, Braddy, Feldman, and Hoapes (2009) studied the 6582 incumbents from eight organizations in eight occupations for homogeneity of a set of personality characteristics. The result indicated that hypothesis related to homogeneity was supported both within organizations as well as within occupations. It showed homogeneity within occupations was higher than that found in organizations.

In other study related to personality traits carried out by Harrell and Harrell (as cited in Smithers & Foster, 2002) shows that business students who reach general management positions earlier in their careers tend to be more socially extraverted and desire higher levels of independence and autonomy. Individuals that take up various military jobs such as pilots, military soldiers, submarine personnel, navy divers, and naval officers have personality traits that distinguish them from the general population (e.g., Bartram, 1995; Beckman, Lall, & Johnson, 1996; Moes, Lall, & Johnson, 1996). Bartram and Dale (as cited in Smithers & Foster, 2002) concluded that those individuals who were more successful in pilot training were more extraverted than those less successful. These findings were confirmed in another study by same researchers which demonstrated that those in flight school are more emotionally stable and extraverted than the general population.

The selection of an occupation is influenced by the individual's perception of its ability to affirm his or her self identity. Costa, McCrae, and Holland (1984)

addressed the consistency of individual characteristics when they stated that vocational interests and their associated personality traits are strongly. Filer (1986) stated "*Predictions of individual occupation should be based not on observed job characteristics such as wages but rather on individual productive attributes and tastes*" (p. 413). These productive attributes include education, experience, and personality traits that make certain workers better suited for particular jobs. Haun (1966) stated a career in professional recreation calls for exceptional sensitivity to people, mature understanding of their needs, eagerness to share their enthusiasm, patience to handle complaints, remain undeterred by rebuffs and capacity to try for the hundredth time when they have failed for ninety-nine.

Vocational profiles for over sixty professions developed by Cattell, Eber, and Tatsuoka (1988) offer valuable assistance to educators and employees in vocational guidance and professional development.

Hartston and Mottram (as cited in Mckenna, 2005) examined 603 middle managers representing a wide range of managerial jobs completed the 16 PF questionnaires when attending a course at a UK management college. Result reveals that accountants tend to be more critical and aloof than the average manager. They are more precise and objective, but are somewhat rigid in their attitudes. They share with bankers a lower level of competitiveness than other managers.

Hartston and Mottram (1976) Sales manager generally displayed an extrovert nature-outgoing, adaptive, and attentive, with a competitive nature. They tended to be cheerful, talkative, enthusiastic, adventurous, sociable, friendly, impulsive, carefree, and unconventional. Engineers like accountants, tend to be more critical and aloof than other managers they also tend to be introspective and less communicative than other managers, and show a tendency towards slowness and caution. They are more

tough-minded than other managers, unsentimental, self-reliant, responsible, and capable of keeping to the point. They tend to be conventional and are concerned with objectivity and immediate practicalities, rather than indulging in far-fetched imaginative ideas. Production managers like engineers, are tough-minded and conventional, but are more assertive and feel free to participate in and to criticize group behavior Hartston and Mottram (as cited in Mckenna, 2005)As a result, they are likely to minimize personal contact with others. They tend to be well informed and inclined to experiment with solutions to problems. Likewise, they are receptive to change and new ideas, and are inclined towards analytical thought (as cited in Mckenna, 2005).

Personnel Managers tend to be more outgoing and adaptable than other managers and prefer occupations that deal with people. They are more sensitive and tender-minded, less realistic and tolerant of the rougher aspects of life, and more cultured. They tend to focus more in group or committee meetings, slowing down the process of decision taking. They also tend to be more imaginative than other managers and are more concerned with introspection and the inner life-an important characteristic for anyone involved in planning and looking beyond immediate needs. Though they may be somewhat impractical, careless, and, to a limited extent, lacking in self-control, they display a romantic liking for travel and new experiences (Hartston & Mottram, 1976)

Shneidman (1984) identified characteristics which distinguish different degrees of success in life among members of a relatively successful group of lawyers. Result indicates that highest successes were related to contentment, self-confidence, openness and spontaneity, a wide range of cultural interests and relative freedom from pervasive feelings of hostility, irritability and dissatisfaction.

DuttaRoy (1992) examined personality traits of Indian Antarctic expeditioners with Cattell's 16PF (Form A). The study suggests that expeditioners are aloof, objective, intelligent, independent, problem solver, optimistic, cheerful, self-sufficient, resourceful, careless of social rules and have little inhibition to environmental threat.

DuttaRoy (1994b) conducted a study to determine, relative importance of personality factors of Cattell's 16 PF in discriminating four occupational groups, namely, teachers, physicians, bank managers, and fine artists. Results indicate differences between four occupational groups.

Mukerjee and DuttaRoy (1994) explored the personality profiles of two occupational groups, physicians and teachers belonging to two different cultural set-ups, namely Indian and British cultures.. Results showed significant mean differences in some personality factors of two occupational groups in both cultures and wide difference between Indian and British occupational groups.

In another study DuttaRoy (1995) compared personality factor scores of experienced teachers, physicians, bank managers, and the fine artists. Factor scores were derived from factor loadings of Cattell's 16PF (Form A). Six factors (Relaxed-anxiety, Forthright-complex, less moralistic-high moralistic, introversion-extraversion, tough minded-tender minded, low intelligence-high intelligence) were obtained through principal component analysis with varimax criterion. Results showed that teachers are significantly more extraverted and anxious, physicians are more intelligent, introverted and anxious, bank managers are more extraverted, relaxed, tough minded and intelligent, artists are introverted and tender minded.

## Trait Theories of Personality

Personality theorists can be classified in two different schools of thoughts; situational theorists and trait theorists (or some combination of the two). Situationists include social psychologists and behaviorists who believe that environmental factors are key determinants of personality. They proclaim that specific environments reinforce and influence behavior eventually shaping one's personality. Individual differences are explained by these theorists as "error variance" (McAdams, 1992).

Trait theorists on the other hand contradict situational theorists and offer an explanation for the "error variance" found between subjects experiencing the same situation. They explain that these individual differences are supported by the existence of traits, which remain stable across numerous situations. These traits influence individuals to act differently when facing similar situations.

Five Factor Model supporters imply that personality can be understood in terms of the five broad traits of adjustment, extraversion, conscientiousness, agreeableness and combination of imagination and curiosity. A "trait" is a temporally stable, cross-situational individual difference. Presently, the most popular approach for studying personality traits are two important models with five factors; Costa and McCrae's Five-Factor model, and Goldberg's Big Five (as cited in McAdams, 1992). The distinctions between these two models lie in how the factors are named, as well as how they are linguistically modeled.

The Five-Factor model represents the factors as Openness, Conscientiousness, Extraversion, Agreeableness, and Neuroticism (OCEAN). The Big Five model replaces "neuroticism" with "emotional stability," and names the "openness" factor



“intelligence.” These factors are named based on the logic of “lexical hypothesis” (Cattell’s, 1943) that important, socially significant individual differences will have a word in any given natural language to describe them (this hypothesis has held up very well for most languages, but failed in a Chinese experiment). Therefore, the Big Five are based upon factor analyses of all (or a large number) of the trait-descriptive adjectives in a natural language, as collected from a dictionary. The Big Five are meant to provide a comprehensive description of phenotypic personality traits. They are not necessarily meant to have a biological basis. The big five model is a descriptive taxonomy that attempts to organize and qualify traits, which make up the foundation of trait theory.

Several theories conceptualize the Big Five as relational constructs. In interpersonal theory (Wiggins & Trapnell, 1996), the theoretical emphasis is on the individual in relationships. The Big Five are taken to describe “the relatively enduring pattern of recurrent interpersonal situations that characterize a human life” (Sullivan, 1953, p. 110); thus conceptualizing the Big Five as descriptive concepts. Wiggins and Trapnell (1996) emphasize the interpersonal motives of agency and communion, and interpret all of the Big Five dimensions in terms of their interpersonal dimensions in the Big Five; they receive conceptual priority in this model.

The evolutionary perspective on the Big Five holds that humans have evolved “difference-detecting mechanisms” to perceive individual differences that are relevant to survival and reproduction (Buss, 1996). Buss views personality as an “adaptive landscape” where the Big Five traits represent the most salient and important dimensions of the individual’s survival needs. The evolutionary perspective (Buss, 1999) equally emphasizes person perception and individual differences, because people vary systematically along certain trait dimensions.

McCrae and Costa (1996) view the Big Five as causal personality dispositions. Their Five-Factor Theory (FFT) is an explanatory interpretation of the empirically derived Big Five taxonomy. The FFT is based on the finding that all of the Big Five dimensions have a substantial genetic basis (Loehlin, McCrae, Costa, & John, 1998). McCrae and Costa distinguish between “basic tendencies” and “characteristic adaptations.” Personality traits are basic tendencies that refer to the abstract underlying potentials of the individual, whereas attitudes, roles, relationships, and goals are characteristic adaptations that reflect the interactions between basic tendencies and environmental demands accumulated over time. According to McCrae and Costa, basic tendencies remain stable across the life course whereas characteristic adaptations can undergo considerable change (as cited in Wiggins, 1997). Instead, the concept “extraverted” stands in for biological structures and processes that remain to be discovered. This view is similar to Allport’s (1937) account of traits as neuropsychic structures and Eysenck’s view of traits as biological mechanisms (Eysenck & Eysenck, 1985).

Smithikrai (2007) examined the predictive power of each facet of the five factor model of personality on job success in a Thai sample. The sample consisted of 2518 Persons from seven occupations. Research found that for all occupational groups’ neuroticism was significantly negatively correlated with job success, while extraversion and conscientiousness were significantly positively correlated with job success. Moreover conscientiousness was the only personality trait that consistently predicted job success across occupations.

## Evaluating the Trait Perspective

Trait approaches have several virtues. They provide a clear, straightforward explanation of people's behavioral consistencies. Furthermore, traits allow us to readily compare one person with another. Because of these advantages, trait conceptions of personality have had an important practical influence on the development of several personality measures (Buss, 1989; Funder, 1991).

On the other hand, trait approaches have some drawbacks. For example, various trait theories describing personality come to quite different conclusions about which traits are the most fundamental and descriptive. The difficulty in determining which of the theories is most accurate has led some personality psychologists to question the validity of trait conceptions of personality in general.

There is another fundamental difficulty with trait approaches. Even if one is able to identify a set of primary traits, the person is left with little more than a label or description of personality—rather than an explanation of behavior. If someone donates money to charity because he or she has the trait of generosity, the question is why the person became generous in the first place, or the reasons for displaying generosity in a given situation. According to some critics, traits do not provide explanations for behavior; they merely describe it (as cited in Feldman, 1997).

Throughout the past decade, there has been a growing consensus that individual differences in personality may be parsimoniously described by a hierarchical system composed of three to seven major trait approaches, the five-factor models have gained distinct prominence (John & Srivastava, 1999; Peeving, 1994). The Big Five traits—Neuroticism, Extraversion, Openness, Agreeableness, and Conscientiousness—emerged from decades of research and have been celebrated for

their ability to simplify an otherwise overwhelming number of traits (Hofstee, 1984; John, 1990; McCrae & Costa, 1987), their cross-cultural applicability (McCrae & Costa, 1997), and their ability to predict health-relevant and other outcomes (e.g., Emmons, 1995). Although the adequacy the five-factor model of trait has been debated (e.g., Block, 1995a; Peruvian, 1994), several Big 5 trait measures are currently in wide use (Widiger & Trull, 1997). Furthermore, although researchers often debate the emphases associated with each model or measure, proponents of the various Big 5 conceptualizations sometimes unite and proclaim, “Despite differences in emphasis and interpretation there is agreement among all these investigators that they are addressing the same phenomenon” (Costa & McCrae, 1992, p. 653).

**Allport’s trait theory.** The first and the most prominent trait theorist is Gordon Allport (1897-1967) Allport and Odbert began by listing 17, 953 words in the English language that refer to characteristics of personality and reducing them to a smaller list of trait names (Allport & Odbert, 1936). A trait was defined as a “neuropsychic structure having the capacity to render many stimuli functionally equivalent, and to initiate and guide equivalent(meaningfully consistent) forms of adaptive and expressive behavior” (Allport, 1961, p. 347) Allport visualized human personality as consisting of the dynamic organization of those traits that determine an individual’s unique adjustment to the environment. A cardinal trait is a single characteristic that directs most of a person’s activities. According to Allport, there are, in order of their pervasiveness across different situations, cardinal traits (e.g., authoritarianism, humanitarianism, Machiavellianism or power striving, sadism, narcissism or self-love), central traits (e.g., affectionateness, assertiveness,

distractibility, honesty, kindness, reliability, sociability), and secondary traits (e.g., food preferences or musical preferences).

**Cattell, Eysenck, and the Big Five.** Eysenck (1970) developed a model of personality based on traits that he believed were highly heritable and had a likely psycho physiological foundation. The three main traits that met these criteria, according to Eysenck, were extraversion- introversion (E) neuroticism- emotional-stability (N), and psychoticism (P). Together they can be easily remembered by the acronym PEN.

**Five Factor Model.** In the past two decades, the taxonomy of personality traits that has received the most attention and support from personality researchers has been the five-factor model-variously labeled the five-factor model, the big five and even in a humorous vein, The High Five (Costa & McCrae, 1995; Goldberg, 1981; McCrae & John, 1992; Saucier & Goldberg, 1996). The broad traits composing the big five have been provisionally named: (i) surgency or extraversion, (ii) agreeableness, (iii) conscientiousness, (iv) emotional stability, and (v) openness-intellect. This five-dimensional taxonomy of personality traits has accrued some persuasive advocates (e.g., John, 1990; McCrae & John, 1992; Saucier & Goldberg, 1998; Wiggins, 1996), as well as some strong critics (e. g., Block, 1995b; McAdams, 1992). To understand how these five factors were identified and what they mean. The five-factor model was originally based on a combination of the lexical approach and the statistical approach. The lexical approach started in the 1930s, with the pioneering work of Allport and Odbert (1936), which laboriously went through the dictionary

and identified some 17, 953 trait terms from the English language (which then contained roughly 550,000 separate entries).

Allport and Odbert then divided the original set of trait terms into four lists (1) stable traits (e.g., secure, intelligent), (2) temporary states, moods and activities (e.g., agitated, excited), (3) social evaluations (e.g., charming, irritating), and (4) metaphorical, physical, and doubtful terms (e.g., prolific, lean). The list of terms from the first category, consisting of 4, 500 presumably stable traits, was subsequently used by Cattell (1943) as a starting point for his lexical analysis of personality traits. Because of the limited power of computers at the time, however, Cattell could not subject this list to a factor analysis. Instead, he reduced the list to a smaller set of 171 clusters (groups of traits) by eliminating some and lumping together others. He ended up with a smaller set of 35 clusters of personality traits.

Fiske (1949) then took a subset of 22 of Cattell's 35 clusters and discovered, through factor analysis, a five-factor solution. However, this single study of relatively small sample size was hardly a robust foundation for a comprehensive taxonomy of personality traits. In historical treatments of the five-factor model, therefore, Fiske is noted as the first person to discover a version of the five-factor model, but he is not credited with having identified its precise structure.

Tupes and Christal (1961) made the next major contribution to the five-factor taxonomy. They examined the factor structure of the 22 simplified descriptions in eight samples and emerged with the Five-Factor Model: Surgency, agreeableness, conscientiousness, emotional stability, and culture.

This factor structure was subsequently replicated by Norman (1963), then by a host of other researchers (e.g., Botwin & Buss, 1989; Digman & Inouye, 1986; Goldberg, 1981; McCrae & Costa, 1985). The past 20 years have witnessed an

explosion of research on the big five. Indeed, the big five taxonomy has achieved a greater degree of consensus than any other trait taxonomy in the history of personality trait psychology.

### **Personality Traits and Five Factor Model**

Silverthorne (2001) compared the effective and non effective leaders in the U.S., the Republic of China (Taiwan), and Thailand. Based on the results of this study, there is evidence that the five factor model of personality relationship to leadership has support in the U.S. sample. Further support is found to four of the five-factors in the Republic of China sample but only for two of the factors, in the Thailand sample. Overall, effective managers differ from less effective ones in describing themselves as more extraverted, more agreeable, more conscientious and less neurotic in all three cultures and U.S. managers but not Chinese and Thai describe themselves as more open to experience.

Braun, Prusaczyk, Goforth, and Pratt (1994) compared the personality profiles of US Navy, Sea-Air-Land (SEAL) personnel on five broadly defined domains of NEO personality inventory. SEAL scored lower in neuroticism, agreeableness, average in openness and higher in extraversion and conscientiousness. High extraversion and conscientiousness scores predict job performance in other professions. Result indicates that, although SEAL seek excitement and dangerous environments they are otherwise, stable, calm, and rarely reckless or impulsive.

McCrae and Terracciano (2005) used the NEO-PI-R questionnaire to assess the universality of the Five Factor Model across 50 cultures. Again using exploratory factor analyses, these authors found that, with the exception of several African

countries, the Five Factor Model was replicated in each culture. Even in the dissimilar African cultures, only the openness factor was less clearly replicated.

Mastor, Hamzah, Yaacob, and Jafar (2007) investigated the personality traits orientation of Malay and Chinese students majoring in engineering courses. The NEO-PI-R Personality Inventory by Costa and McCrae was used to assess the Personality profile. Result revealed that the Malay engineering students were found to have a higher level of neuroticism and agreeableness than the Chinese engineering students. It was also found that Chinese engineering students were higher on openness domain than their Malay Colleagues.

**Goldberg's Five-Factor Model.** The five-factor model has proven to be astonishingly replicable in studies using English language trait words as items (Goldberg, 1981, 1990; John, 1990). The five factors have been found by more than a dozen researchers using different samples. It has been replicated in every decade for the past half-century, suggesting that the five-factor structure is replicable over time. It has been replicated in different languages and in different item formats. In its modern form, the big five taxonomy has been measured in two major ways. One way is based on self ratings of single word trait adjectives, such as, talkative, warm, organized, moody, and imaginative (Goldberg, 1990), and one way is based on self-ratings of sentence items, such as "*My life is fast-paced*" (McCrae & Costa, 1999).

Goldberg (1990) has done the most systematic and thorough research on the big five using single word trait adjectives. The taxonomy Goldberg has confirmed through factor analysis is remarkably similar to the structure found by Norman (1963). According to Goldberg (1990), key adjective markers of the big five are as follows:



1. *Surgency or extroversion*; talkative, extraverted, assertive, forward, outspoken versus shy, quiet, introverted, bashful, inhibited.
2. *Agreeableness*; sympathetic, kind, warm, understanding, sincere versus unsympathetic, unkind, harsh, cruel.
3. *Conscientiousness*; organized, neat, orderly, practical, prompt, meticulous versus disorganized, disorderly, careless, sloppy impractical.
4. *Emotional stability*; calm, relaxed stable versus moody, anxious, insecure.
5. *Intellect or imagination*; creative, imaginative, intellectual versus uncreative, unimaginative, un-intellectual.

This five-factor structure has been replicated extensively among English-speaking samples, is robust across different factor-analytic techniques, and shows the same factor structure for men and women. In addition to measures of the big five that use single trait words as items, the most widely used measure using a sentence-length item format has been developed by Costa and McCrae. It's called the NEO-PI-R; the neuroticism-extraversion-openness (NEO) Personality Inventory (PI) Revised (Costa & McCrae, 1989). Using more sophisticated techniques, these investigations identified the same five dimensions-known as the Big Five personality dimensions (as cited in McShane & Von Glinow, 2000).

*Extroversion* characterizes people who are outgoing, talkative, sociable, and assertive. The opposite is *introversion*, which refers to those who are quiet, shy, and cautious. Introverts do not necessarily lack social skills. Rather, they are more inclined to direct their interests to ideas than to social events. Introverts feel quite comfortable being alone, whereas extroverts do not.

*Agreeableness.* This includes the traits of being courteous, good-natured, emphatic, and caring. Some scholars prefer the label of “friendly compliance” for this dimension, with its opposite being “hostile noncompliance”. People with low agreeableness tend to be uncooperative, short tempered, and irritable.

*Conscientiousness* refers to people who are careful, dependable, and self-disciplined. Some scholars argue that this dimension also includes the will to achieve. People with low conscientiousness tend to be careless, less thorough, more disorganized, and irresponsible. Conscientiousness has taken center stage as the most valuable personality trait for predicting job performance in almost every job group. Conscientious employees set higher personal goals for themselves, are more motivated and have higher performance expectations than do employees with low levels of conscientiousness. High-conscientiousness employees tend to have higher levels of organizational citizenship and work better in workplaces that give employees more freedom than in traditional “*command and control*” workplaces. Employees with high conscientiousness, as well as agreeableness and emotional stability, also tend to provide better customer service (McShane & Von Glinow, 2000).

*Emotional Stability.* People with high emotional stability are poised, secure, and calm. Those with emotional instability tend to be depressed, anxious, indecisive, and subject to mood swings.

*Openness to Experience.* This dimension is the most complex and has the least agreement among scholars. It generally refers to the extent to which people are

sensitive, flexible, creative and curious. Those who score low on this dimension tend to be more resistant to change, less open to new ideas, and more fixed in their ways.

Several studies (as cited in Meshane & Von Glinow, 2000) have found that these personality dimensions affect work related behavior and job performance. Champions of organizational change (people who effectively gain support for new organizational systems and practices) seem to be placed along the positive end of the five personality dimensions described above. People with high emotional stability tend to work better than others in high-stress situations. Those with high agreeableness tend to handle customer relations and conflict based situations more effectively.

**Empirical Correlates of the Five Factors.** Over the past 15 years, a tremendous volume of research has been conducted on the empirical correlates of each of the five factors. Some of the most interesting findings are:

***Extraversion.*** Extroverts love to party—they engage in frequent social interaction, takes the lead in livening up dull gatherings, and enjoys talking a lot. Evidence suggests that social attention is the cardinal feature of extraversion (Ashton, Lee, & Paunonen, 2002). From the perspective of the extrovert, “*the more the merrier*”, Extroverts have a greater impact on their social environment, often assuming leadership positions, whereas introverts tend to be more like wallflowers (Jenson-Campbell & Graziano, 2001). Extraverted men are more likely to be bold with women they don’t know, whereas introverted men tend to be timid with women (Berry & Miller, 2001). Extroverts tend to be happier, and this positive affect is experienced most intensely when a person acts in an extraverted manner (Fleeson,

Malanós, & Achille, 2002). But there are also down sides—extraverts like to drive fast, listen to music while driving, and as a consequence, tend to get into more car accidents, and even road fatalities, than their more introverted peers (Lajunen, 2001).

*Agreeableness.* Whereas the motto of the extravert might be “*let’s live things up*”, the motto of the highly agreeable person might be “*let’s all get along*”. Those who score high on agreeableness favor using negotiation to resolve conflicts; low-agreeable persons tend to try to assert their power to resolve social conflicts (Graziano & Tobin, 2002; Jensen-Campbell & Graziano, 2001). The agreeable person is also more likely to withdraw from social conflict, preferring to avoid situations that are unharmonious. Agreeable individuals have as cardinal goals harmonious social interaction and cooperative family life.

Agreeable children tend to be less often victimized by bullies during early adolescence (Jensen-Campbell, Adams, Perry, Workman, Furdell, & Egan, 2002). One might suspect, politicians, at least in Italy, tend to score high on scales of agreeableness (Caprara, Barbaranelli, Consiglio, Picconi, & Zimbardo, 2003). At the other end of the scale of agreeableness lies aggressiveness. In a fascinating study of daily acts, Wu and Clark (2003) found that aggressiveness was strongly linked to a host of everyday behaviors. Examples include: hitting someone else in anger. Agreeable individuals, in short, get along well with others, are well liked, avoid conflict, strive for harmonious family lives, and may selectively prefer professions in which their likeability is an asset. Disagreeable individuals are aggressive and seem to get themselves into a lot of social conflict (Larsen & Buss, 2005).

*Conscientiousness.* If extraverts party up and agreeable people get along, and then conscientious individuals are industrious and get ahead. The hard work, punctuality, and reliable behavior exhibited by conscientious individuals result in a host of life outcomes such as a higher grade point average, greater job satisfaction, greater job security, and more positive and committed social relationships (Langford, 2003). Those who score low on conscientiousness, in contrast, are likely to perform more poorly at school and at work. The high-C individual, in sum tends to perform well in school and work, avoids breaking the rules and has more stable and secure romantic relationship (Larsen& Buss, 2005).

*Emotional Stability.* Life poses stresses and hurdles that everyone must confront. The dimension of emotional stability taps into the way people cope with these stresses. Emotionally stable individuals are like boats that remain on course through choppy waters. Emotionally unstable people get buffeted about by the waves and wind and are more likely to get knocked off course. The hallmark of emotional instability or neuroticism is variability of moods over time-such people swing up and down more than emotionally stable individuals (Murray, Allen, & Trinder, 2002). Perhaps as a consequence, emotionally unstable individuals experience more fatigue over the course of the day (De Vries & Van Heck, 2002).

Psychologically, emotionally unstable individuals are more likely to have dissociated experiences such as an inability to recall important life events, feeling disconnected from life and other people, and feeling like they've woken up in a strange or unfamiliar place (Kwapil, Wrobel, & Pope, 2002).

Emotional instability augurs poorly for professional success.. This may be partly due to the fact that emotionally unstable people are thrown off track by the

everyday stresses and strains that all go through. It may be partly due to their experience of greater fatigue. But it may also be attributable to the fact that they engage in a lot of “self-handicapping” (Ross, Canada, & Rausch, 2002). Self-handicapping is defined as a tendency to “*create obstacles to successful achievement in performance or competitive situations in order to protect one’s self-esteem*” (Ross et al., 2002, p.2). Those high on neuroticism seem to undermine themselves, creating roadblocks to their own achievement. In sum, the affective volatility that comes with being low on emotional stability affects many spheres of life, from sexuality to achievement (as cited in Larsen & Buss, 2005).

*Openness.* Those who are high on openness tend to remember their dreams more, have more waking dreams, have more vivid dreams, have more prophetic dreams (dreaming about something that later happens), and have more problem-solving dreams (Watson, 2003).

The disposition of openness has been linked to experimentation with new foods, a liking for novel experiences, and even “*openness*” to having extramarital affairs (Buss, 1993). One possible cause of openness may lie in individual differences in the processing of information. A recent study found that those high in openness had more difficulty in ignoring previously experienced stimuli (Peterson, Smith, & Carson, 2002). It’s as though the perceptual and information processing “*gates*” of highly open people are literally more “*open*” to receiving information coming at them from a variety of sources overtime. Less-open people have more tunnel vision and find it easier to ignore competing stimuli. In sum, the disposition of openness has been correlated with a host of other fascinating variables from intrusive stimuli to possible alternative sex partners.

*Combinations of Big Five Variables.* Many life outcomes, of course, are better predicted by combinations of personality dispositions than by single personality dispositions.

Good grades are best predicted by Conscientiousness (high) and Emotional Stability (high) (Chamorro-Premuzic & Furnham, 2003). One reason might be that emotionally stable and conscientious people are less likely to procrastinate (Watson, 2001).

Alcohol consumption is best predicted by high Extraversion and low Conscientiousness (Paunonen, 2003). Mount Everest mountain climbers tend to be extraverted, emotionally stable, and high on Psychoticism (Egan & Stelmack, 2003). Happiness and experiencing positive affect in everyday life are best predicted by high Extraversion and low Neuroticism (Cheng & Furnham, 2003; Steel & Ones, 2002; Yik & Russell, 2001). Leadership effectiveness in business settings is best predicted by high Extraversion, high Agreeableness, high Conscientiousness, and high Emotional Stability (Silverthorn, 2001).

Proponents of the five-factor model are typically open-minded about the potential inclusion of factors beyond the five factors, if and when the empirical evidence warrants it (Costa & McCrae, 1995; Goldberg & Saucier, 1995). Nonetheless, these researchers have not found the evidence for additional factors beyond the big five to be compelling. Positive and negative evaluation, some have argued, are not really separate factors but, rather, false factors that emerge simply because raters tend to evaluate all things as either good or bad (McCrae & John, 1992). With respect to the attractiveness factor found by Lanning (1994), Costa and McCrae (1995) argue that attractiveness is not ordinarily considered to be a

personality trait, although the charming item that loads on this factor surely would be considered part of personality.

In addition to the possibility of discovering dimensions beyond the big five, some researchers have had excellent success in predicting important behavioral criteria from within the big five using the facets of the big five (Paunonen & Ashton, 2001a, 2001b). For example, in predicting course grades in a college class, Paunonen and Ashton (2001a) found significantly greater predictability from the facet subscales of Need for Achievement (a facet of Conscientiousness) and Need for Understanding (a facet of Openness) than from the higher-level factor measures of Conscientiousness and Openness themselves. Paunonen & Ashton (2001a) conclude that: "The aggregation of narrow trait measures into broad factor measures can be counterproductive from the point of view of both behavioral prediction and behavioral explanation" (p.78).

In an analysis of the "*big five*" personality dimensions in relation to job performance, Barrick and Mount (1991) concluded that people possessing Conscientiousness- e.g., traits such as strong sense of purpose, obligation, and persistence-generally perform better than those without this set of traits. Another observation was that Extroversion (i.e., traits such as being sociable, gregarious, talkative, assertive, and active) was associated with effective performance in occupations connected with management and sales. Obviously these are jobs where interactions with others constitute a significant portion of the job.

The '*big five*' model as a predictor of behavior at work has received impressive endorsement from researchers, though there are some dissenting voices. Robertson (1998) argues that though the big five structure has helped to bring about a remarkable consensus amongst psychologists, it certainly does not escape criticism;



for example, no particular psychological theory accounts for its existence. Schneider and Hough (1995), after reviewing the big five debate, are critical of the simplicity of the model and concluded that the time has not yet arrived to view the model as an adequate taxonomy.

Hough (1992) felt that the big five model needed to be expanded and proposed a nine-factor structure, resulting in subdividing Extroversion and Conscientiousness and adding two new factors. The new factors are locus of control (the extent to which one feels control over events) and rugged individualism (the extent to which one is decisive, independent, and sentimental). Extroversion was sub-divided into affiliation (being sociable) and potency (the extent of impact, influence, and energy displayed by the individual). Conscientiousness was subdivided into dependability (extent to which an individual is organized, is able to plan, respects authority, and adheres to rules) and achievement (striving for a competent performance).

Hampson (1999) is complimentary about the big five structure of personality, but also adds that “it remains, for the most part, a description of normal personality and therefore it is not useful in clinical applications as it is in other areas”.

In the final analysis, when relationship between personality and work behavior is observed and must be vigilant and recognize the potency of crucial variables e.g., ability and organizational conditions etc-that can influence outcomes. For example, there are a number of both inborn and learned abilities-such as logical reasoning, linguistic skills, numeric, manual dexterity, spatial awareness, fund of knowledge and expertise, and personal attributes (i.e., gender, social class, ethnic origin) that can have a significant bearing on the available opportunities for certain kinds of experiences in life, and also influence the manner in which the world treats us (as cited in McKenna, 2003).

Research areas regarding the five factors include the development of a personality test to assess the five factors, the extent to which the five factors appear in personality profiles in different cultures, and the role of the five factors in predicting health and illness. Costa and McCrae (1992b) constructed a test, the Neuroticism Extraversion Openness Personality Inventory, Revised (or NEO-PI-R for short), to assess the big five factors in personality.

The test also evaluates six sub-dimensions that make up the five main factors. Costa and McCrae (1989) believe that the test can improve the diagnosis of personality disorders and help therapists understand how therapy might influence different types of clients.

### **The Measurement of Personality Traits**

Personality measures have a long history of use in industry and Government. They are used in the federal and state prison systems to make decisions about inmates. They are also widely used in industry to match people with particular jobs, to help screen people for employment, and to select people for promotion. An employer may feel that emotional stability is a requirement for a specific job or that the personality trait of honesty is especially important for working. Jobs may require strong organizational or social skills or the ability to work in a distracting environment. Whether someone does well in employment settings may be determined, in part, by whether the individuals' personality traits match with the job requirements. Personality traits may predict who is likely to do well in a particular job, so it makes some sense to try to select people for employment based on measures of these traits (Larsen & Buss, 2005).

Another long-standing concern is how traits should be assessed. Traits are individual difference dimensions like physical height or weight along which individuals can be ordered. However, unlike physical characteristics, personality traits are hypothetical constructs that can never be observed directly. Instead, they must be inferred. Moreover, there is no single perfect measure of a trait. Trait assessment must therefore, rely on multiple measurements. Thus, the demonstration of converging evidence across methods has been an important goal of trait assessment and has led to an approach to measurement known as construct validation (Cronbach & Meehl, as cited in John & Gosling, 2000)

The trait approach to personality is largely based (Kreitner & Kinicki, 2004) on ratings of self and others on representative and comprehensive listings of trait relevant descriptors.

The Big Five model has served as a basis for the development of assessment instruments, including Big Five Trait Markers, Big Five inventories, and some instruments that have been shaped after the Big Five framework. This variety of instrument development shows the potential of the model. Moreover, the Big Five model is used in many different types of investigations, such as in the judgements of faces (Henss, 1995), the comparison of polar workers with a normative population (Steel, Suedfeld, Peri, & Palinkas, 1997), the construct validation of the concept of “argumentativeness” (Blickle, 1997), and in the categorization of free descriptions of children provided by parents (Kohnstamm, Halverson, Mervielde, & Havill, 1998).

Barrick and Mount (1991) investigated the role of the Big Five factors in relation to job performance. According to Smith and Williams (1992), the application of the five-factor model in the health domain would lead to a more coherent conceptual and empirical foundation in that area. DeRaad and Schouwenburg (1996) organized the literature on personality, learning, and education using Big Five factors

and facets (ABC) as an accommodative framework. Many more examples of exploitation of the Big Five framework can be mentioned, such as in behavior genetics where the Big Five factors have been taken to classify behavior genetic findings with respect to adult personality (e.g., Bouchard, 1993). Van Dam (1996) shows that the Big Five model provides for a useful framework to understand the ways selectors perceive the personalities of job applicants.

Most of the personality tests used are pencil and paper tests with multiple-choice elements. In practice they are not tests in the sense that correct and incorrect answers are possible to the various questions. They are really questionnaires in which the job applicant or employee seeking advancement in the organization is requested to state how he or she feels about certain issues, and how he or she would react in certain specified situations.

Trait theorist can use any method of measurement to gauge traits. In practice the pre-eminent method has been personality inventories, which are based on some kind of factor analysis. Nearly all of the common personality tests are based on trait theory. Most modern tests, including the 16PF (Cattell, 1949), the EPQ (Eysenck & Eysenck, 1975), OPQ (Savills & Holdsworth, 1984), and the NEO (Costa & McCrae, 1992) use the trait approach (as cited in Smith, & Smith, 2005).

Assessment techniques derived from trait concepts aim simply to profile person's behavior patterns, not to reveal the hidden personality dynamics (which is the intent of projective tests). Many trait scales provide quick assessments of a single trait, such as extraversion, anxiety, or self-esteem. Such measures are commonly used in studies of personality and behavior. Alternatively, psychologists can assess several traits at once by administering personality inventories-longer questionnaires on which people respond to items designed to gauge a wide range of feelings and behaviors are

achieved easily. The purpose of personality measurement is to develop and modify people's personalities for better performance and goal achievement (Myers, 1992).

### **Objective Measures of Personality**

**Sixteen Personality Factor Questionnaires (16PF).** The Sixteen Personality Factor Questionnaire (16PF) was developed by Cattell (1949) psychometrically, its reliability and validity have been amply demonstrated in numerous studies that are documented elsewhere (Conn & Rieke, 1994; Russel & Karol, 1994). Having well developed norms for high school, college, and adult populations, it has been used in a wide variety of both research and clinical settings. It has been employed in vocational psychology to determine the personality profiles of various occupational groups. Personnel selection and placement have been undertaken using scores from the 16 PF as important data in the decision-making process.

**NEO Five Factor Inventory.** Revised NEO Personality Inventory (NEO-PI-R; Costa & McCrae, 1992b) is a 240-item questionnaire designed to operationalize the five-factor model of personality (FFM; Digman, 1990; McCrae & John, 1992; Funder, 2001). Over the past decade, the FFM has become a dominant paradigm in personality psychology, yet most attention has been focused on the Big Five factors. The "Big Five" factor theory dominates current personality research (Bayne, 1994; Hampson, 1999; McAdams, 1992). The five basic dimensions of personality according to this theory are extroversion, emotional stability, agreeableness, conscientiousness, and intellect. Many researchers believe that individual differences can be usually organized in terms of five broad, bipolar dimensions (John &

Srivastava, 1999; McCrae & Costa, 2003), dimension widely known in the professional field as the Big Five.

**Mini Markers: A brief version of Goldberg's Unipolar Big-Five Markers.**

Goldberg (1992) developed a set of 100 unipolar adjective markers of the Big-Five factor structure. Each of the five factors is indexed by a 20 item scale, for which Goldberg reported alpha reliabilities ranging from .82 to .97 in various data set. The 100 adjectives reproduce the expected five factor structure with extraordinary robustness, (Goldberg, 1992) and have already provided a standard Big-Five representation in other studies (e.g., Hofstee, de Raad, & Goldberg, 1992; Johnson & Ostendorf, 1993; Saucier, 1992, 1994). Goldberg (1992) noted that relatively small sets of variables can serve as markers of the Big-Five structure and that variables administered in the unipolar format appear to be more robust across samples than are bipolar scales.

The Mini Markers a short form of Goldberg's (1992) unipolar big-five measure has been selected for validation of newly developed measure i.e., Personality Traits Assessment Scale (PTAS) because it has proven to be one of the most psychometrically reliable (Mooradian, & Nezlek, 1996) and frequently used brief big-five measure being employed widely in personality research (Diefendorff, & Richard, 2003), and (McCullough, Emmons, & Tsang, 2002) and in applied settings across several disciplines, comprising of only 40 single adjective personality descriptors originally selected for their psychometric qualities (Saucier, 1994).

## Personality Research Studies in Pakistan

Several researches have been carried out in Pakistan to study various aspects of personality, employing different measurement approaches. As Altaf (1988) compared Personality Profile of delinquent and non delinquent on CPI and result showed significant differences between delinquent and non delinquent on the socialization scale. Eleven other scales of CPI were also found to be discriminating between delinquents and non delinquents.

Akhtar (1997) established a comparative psychological profile of political, organizational and military leadership in Pakistan. It was based on conceptual model of leadership in which leaders, followers, and situation form an ecosystem. In this system all three are affecting each other. Results of the study have supported the model. Psychological profile of political, organizational and military leadership has been found in accordance with the basic premises of the leadership ecosystem.

Shujaat (1992) conducted a study to assess personal characteristics of leaders in business organizations. 98 executives from four renowned organizations were included in study. The instrument used was a data sheet and a questionnaire comprising of seven scales of British version of California Psychological Inventory (CPI). The criteria of leadership success in organization were number of promotions achieved and salary to which the employee had ascended. The result showed significant differences between successful and unsuccessful executives on six out of seven scales i.e., Dominance, Capacity for Status, Sociability, Achievement via independence, Managerial Potential, and Work Orientation Scale. The difference between two groups was nonsignificant on Responsibility.

Shujaat, Zehra, and Anila (1996) used CPI to explore personality characteristics of successful and unsuccessful, technical and non technical, younger and older business executives through selected scales i.e., Dominance, Capacity for Status, Sociability, Responsibility, Achievement via Independence, Managerial Potential, and Work Orientation. Result revealed that successful, non technical and older executives showed more leadership traits as compared to the other groups.

Saleem (1999) explored personality traits of managers using various leadership styles working in different private organizations. Leadership questionnaire to measure leadership styles (a 5 point scale) and for measurement of attributes leadership assessment scale was used. Analysis revealed that shared leadership is most widely used and is an appropriate style for organization. Leaders with this style exhibited high mean ratings in task related and people related attributes i.e., responsible, confident, honest, social and helpful to others.

Chishti (2002) compared personality profile of general duty pilot cadets and aeronautical engineering branch cadets by using the adapted version of NEO-PIR (Costa & McCrae, 1991). He reported nonsignificant differences between both the groups of cadets.

Ashraf (2004) studied the differences between aviation and non aviation officers of Pakistan Air force (PAF) on five personality traits which are Dominance, Independence, Responsibility, Socialization and Achievement via Independence by using five folk scales of California Psychological Inventory (CPI; Gough, 1987). The result showed that there are nonsignificant differences between aviators and non aviators on the five personality traits.

Taj (2004) investigated the personality traits of working and non-working women and identified relationship with some selected demographic variables. For this



purpose the Urdu version of revised NEO personality inventory (Chishti, 2002) was used. Result showed non-significant difference among working and non-working women on the total score of personality traits, but significant differences were found on four facets in working and non-working women i.e., Neuroticism facet, extraversion facet, agreeable facet, and conscientious facet with reference to demographic variables there was no significant difference was found.

Shahid (2006) examined the relationship of organizational culture and personality traits with specific reference to their impact on organizational identification among the employees of national and multinational mobile phone services providing companies. Result of the study indicates positive relationship between the organizational culture and organizational identification. But positive non-significant correlation was found between the organizational culture and personality traits.

Naqvi (2007) examined the patterns of delinquency and personality traits of adolescents in child labor. It also investigated whether adolescents with different demographic variables differ on delinquency. Three scales i.e., SRDS, IRDS and Eysenck Personality Questionnaire Junior (EPQ) Urdu version were administered. The findings revealed satisfactory reliabilities of scales. Results also indicate significant positive correlation between self-reported delinquency and informant reported delinquency and personality traits. Between the organizational culture and organizational identification positive but non-significant correlation was found between the organizational culture and personality traits.

Shaheen (2007) carried out a study to explore personality characteristics of alcohol, chars, heroin, and poly drug addicts by using NEO-PI-R. The findings

indicated that drug addicts are found to be neurotic. There is statistically nonsignificant interaction between types of drugs used.

Chaudhry (2008) conducted study to explore personality traits of individual with procrastinations. Urdu version of Procrastination Scale (Fatimah, 2001) and the Mini Marker Personality Inventory (Manzoor, 2000) were used. Result revealed that conscientiousness and emotional stability were negatively correlated with procrastination. Extraversion and other three scales showed non-significant negative correlation with procrastination.

Irfan and Kamal (2008) explored the main features of the studies in the broad domain of personality psychology at National Institute of Psychology, Quaid-i- Azam University. Sample consisted of 34 studies and most commonly used personality measures were Urdu version of CPI (Ahmed, 1986), NEO PIR (Chishti, 2002), and Mini Marker Personality Inventory (Manzoor, 2000). Result of these studies supported that effect of different personality dimensions vary from situation to situation and from person to person.

Other studies carried out on personality traits and various variables include role of personality traits are, an exploratory study on personality traits of drug addicts (Shaheen, 2007); listening skills of English as a foreign language (Fayyaz, 2008); relationship between religious orientation and personality traits of students of English medium schools and dini madaris (Ruqayya, 2008); and relationship among self-compassion, motivation and procrastination (Williams Stark, & Foster, 2008).

After extensive review of literature it has been observed that one area that lacks attention is the personality traits of civil servant (Cadre) occupational groups. As civil services provide an obvious focus for comparative study for reasons such as well established structures, they are highly visible and their formal functions are

clearly defined. In addition their role in organization lies at the centre. Selection is made through competitive examination on the basis of merit and merit within the quota. In government sector these occupational groups are considered prestigious with reference to job security, perk and privileges, promotion, exposure, training, power and authority. Very few studies related to civil servants such as socio-economic inequalities in physical and mental functioning of Japanese civil servants British, Finnish and Japanese civil servant (Sekine, Chandola, Martikainen, Mormat, & Kagamimori, 2006, 2009) have been found. Some studies are available on police personality (Glasner, 2005; Kevin, & Sarah, 2007). But none of the studies related to civil servants occupational groups are available in Pakistan. Therefore being an employee of Federal Public Service Commission researcher developed an interest in study of personality traits of Pakistani Civil Service occupational groups.

### **Concept of Civil Service (cadre)**

Traditionally civil service refers to the body of appointed officials who carry out the functions of government under the direction of head of the government. Any government cannot function without some forms of civil service. The civil service is formed to facilitate the people. The purpose of creating civil service is to build a hard core of professional executives of moral standing and intellectual ability, free from political interference and to act as the keeper of the covenant between the government and the governed. An effective civil service system also has to ensure that the civil servant discharge their responsibilities impartially and contribute to building credible institutions. Governments are urged to be strong without being pervasive; the civil service is directed to perform only the strategic functions of policy making, policy

coordination, resource modification, and service delivery. Bureaucrats have a strong influence on the masses of Pakistan (Altaf, 1988). People prefer their government and heads of institutions have the personality traits such as high on leadership, integrity, emotional stability, etc., and having expectations for smooth running of institutions. For this purpose a country needs well organized government machinery for proper governance. There are two facets to the administration of the country. One is security for which the country has its defence services and the other is the non military part, which is taken care of by the Civil Services. Civil Services have been divided into various groups /services and various grades to facilitate smooth functioning. CSS (Central Superior Services) occupational groups are called cadre and other professional and technocrats jobs are ex-cadre. Seven CSS (Central Superior Services) occupational groups (cadre) and three ex-cadre professions have been included in study. Detailed information about Civil Services (cadre) and ex-cadre are given below to understand the importance and functioning of these groups.

### **Civil Services in Pakistan**

Pakistan emerged as a sovereign and independent state on August 14, 1947. One of the more organized and effective institutions, which was inherited from British colonial rule was the civil service. At the time of partition, the structure of the civil service existing in India was adopted by Pakistan with some modifications. The two categories of the service i.e., all Pakistan services and central services were maintained in Pakistan.

In Pakistan there are two main categories of services i.e., cadre which includes Central Superior Services (CSS occupational groups) and other is ex-cadre posts which covers all technocrats and professional jobs.

The CSS officers (Grade 17 and above) occupy the bulk of positions responsible for policy making and its analysis in the government machinery at all levels of government functioning. Drawn from various occupational groups they serve across different ministries and attached departments at both federal and provincial levels. Entry level positions in these Groups/Services are filled through a stringent competitive examinations held under aegis of Federal Public Service Commission. The twelve Occupational Services/Groups (Cadre) are:

- 1 Commerce and Trade Group (CTG)
- 2 Customs and Excise Group (CEG) renamed as Pakistan Custom Service (PCS)
- 3 District Management Group (DMG) renamed as Pakistan Administrative Services (PAS)
- 4 Foreign Service of Pakistan (FSP)
- 5 Income Tax Group (ITG) renamed as Inland Revenue Service (IRS)
- 6 Information Group (IG)
- 7 Military Lands and Cantonment Group (MLCG)
- 8 Office Management Group (OMG)
- 9 Pakistan Audit and Accounts Service (PAAS)
- 10 Police Service of Pakistan (PSP)
- 11 Postal Group (PG)
- 12 Railways Group (Commercial and Transportation) (RCTG)

**Armed Forces and Civil Services of Pakistan.** Commissioned officers of Pakistan Army, Pakistan Navy and Pakistan Air Force, have their own quota of 10% in District Management Group (DMG), Foreign Service of Pakistan (FSP) and Police Service of Pakistan (PSP). Usually the Ministry of Defence recommends a panel of officers from the three forces of the rank of Captain etc., for induction into the Civil Services. They appear in Psychological Assessment and Viva Voce conducted by FPSC for selection into Civil Services.

### **Description of Services / Groups**

Central Superior Services of Pakistan (or commonly known as CSS) is the name given to a group of officers working in highly prestigious and powerful Pakistani federal government departments. Description of these twelve groups/services is as follows (Central Superior Service, Pakistan, 2007).

**Commerce and Trade Group (CTG).** Previously Trade Service of Pakistan (TSP) was changed into Commerce and Trade Group. The posts of Commercial Secretary / Counselor in Pakistani missions abroad have been kept open to all financial services and DMG. This anomaly occurred due to the fact that the Office Memorandum under which the Commerce & Trade Group was created did not specify these posts exclusive to this group.

**Customs and Excise Group (CEG) renamed as Pakistan Customs Service (PCS).** Previously known as “Customs and Excise group” it was renamed as Pakistan Customs Service in November 2010 when the responsibility of collection of income

tax, sales tax and federal excise was devolved to the newly created Inland Revenue Service. While the role of Pakistan Customs Service has greatly diminished because of the loss of sales tax and federal excise to IRS, the move has allowed Pakistan Customs to become a lean service with enhanced focus on border control.

**District Management Group (DMG) renamed Pakistan Administrative Services (PAS).** It is a service which on one hand attracts the top achievers in the civil services and on the other its structure having enormous horizontal and vertical mobility chances enables the selected officers to occupy leading administrative positions from the outset of their careers.

Post devolution policy, the service structure of DMG was initially seen by some to have been adversely affected. Conversely the post devolution scenario has shown that the role and the scope of the administrative cadres has increased manifold. In civil society role of these officers is expected like a public servant motivated by the ideals of commitment and responsiveness to public needs and expectations.

**Foreign Service of Pakistan(FSP).** Constituted on an adhoc basis immediately after the birth of Pakistan this service envisaged diplomatic posts in the Ministry of Foreign Affairs and in the Diplomatic and consular missions of Pakistan abroad. The Recruitment to the Officers cadre in Foreign Service of Pakistan is through the competitive examination conducted annually by FPSC. Officers selected undergo common training at Lahore and later are given six months specialized training at the Foreign Service Academy, Islamabad. The officers also undergo language training in different languages.

**Income Tax Group (ITG) reclassified as Inland Revenue Service (IRS).**

Former Custom & Excise Group was re-classified as Pakistan Customs Service and defunct Income Tax Group ceased to exist as all officers from the defunct Income Tax Group opted for IRS. Officers of IRS administer the Inland Revenue Department which is responsible for collection of Income Tax, Sales Tax and Federal Excise Receipts from across Pakistan. The role, importance and powers of IRS have greatly enhanced.

**Information Group (IG).** Information Group plays a vital role in national image building within and abroad. Consequent to Common Training the probationers join Information Services Academy in Islamabad and receive specialized training in media management and public relations. After completion of this training, these officers are posted in attached departments of Ministry of Information and Broadcasting.

The Information Group Officers constantly work for the image building of federal ministries and their attached departments. These officers act as a bridge between the government and the media. They keep constant liaison with Pakistani missions/embassies abroad and facilitates the visiting foreign journalists in carrying out their professional assignments. These officers make an effort to project the image of Pakistan and counter propaganda that may be detrimental to interests of Pakistan. The Information Group officers are also posted in other federal government departments on deputation (Central Superior Services Pakistan, 2007).



**Military Lands and Cantonment Group (MLCG).** This group administers the Military Lands & Cantonments Department. Various Cantonment Boards and military estates that do not fall within the domain of the civil municipal/district administrations of the respective cities/towns are looked after by this group. Headed by the Director General it is followed in hierarchy by an Additional Director General (BS-20), assisted by five Regional Directors (BS-20). Cantonment Executive Officers (CEOs) and Military Estates Officers (MEOs) are next in order of hierarchy. Responsibilities of CEO include levying various taxes/charges including Property Tax Assessment; House Tax collection; Water Tax collection; Sewerage Tax collection; Mutation on leased land/private property sale; awarding advertisement spots besides fixing advertisement rates; professional practice license; professional tax; water connection; maintenance and repair of roads, fountains, parks; project management etc.

Cantonment board is headed by a President who is usually a serving armed forces officer and its Secretary is Cantonment Executive Officer.

**Office Management Group (OMG).** The officers of the OMG function in the Federal Secretariat at the level of Section Officers (BPS-17 & 18) and are also posted on deputation to provincial governments, attached/subordinate departments, authorities/corporations. A specialized pre-service training program equips the new entrants with the necessary administrative skills, and mandatory refresher courses/capacity building techniques are useful to have the officers retain the cutting edge of modern management.

**Pakistan Audit and Accounts Service (PAAS).** Pakistan Audit and Accounts Service operate under the provisions of article 144 to 176 of the constitution. The Auditor General enjoys a tenure posting of five years and is responsible for maintenance of accounts of the public sector organizations and conduct the audit.

The accounting functions of the Auditor General have been assigned to the Controller General of Accounts who functions under Auditor General of Pakistan. The Auditor General presents the annual accounts of the Ministries and Departments to the Federal and Provincial Public Accounts Committees respectively.

**Police Services of Pakistan (PSP).** This is one of the oldest services which worked for a long time under the old Police Act. With the enforcement of Police Order 2002, it has been given a leadership role along with lot more responsibilities and accountabilities. They are expected to give information and guidance to serve the people in a better way. Their assistance and coordination is essentially important for the success of an area Police.

**Postal Group (PG).** Pakistan Post is another one of the oldest departments of the Sub-Continent is working under Pakistan Post Office Act, 1898. One of the largest public sector organizations it provides diverse postal facilities on minimum cost. It also performs a number of important functions on behalf of other Federal and Provincial Government Departments / Institutions which include Savings Bank, Life Insurance, Pension Payments, Collection of Utility Bills etc.

In the year 1972, the Postal Group was formed and young officers started joining the group regularly every year since 1973. Posting in big cities, medical, transport and accommodation facilities for its officers and deputation to various

training courses within and outside the country make it attractive service over other groups.

**Railways (Commercial and Transportation)Group (RCTG).** This group plays the role of back bone of the country's economic activity. Large scale movement of freight as well as passenger traffic is its main responsibility thereby contributing to national integration.

Huge organization like Railways requires various branches to run its business smoothly. The Railways Commercial & Transportation (C&T) group is the only cadre in Railways, inducted through CSS. It is also called as operating and management department as it is solely responsible for the promotion of commercial business (freight & passenger) and for overall safety concerning train movement and operations.

### **Procedure of Recruitment to Civil Services**

Recruitment to the officers' cadre (Basic Pay Scale 17) in Civil services is extremely competitive. The candidates are required to qualify the written examination comprising of compulsory and optional subjects carrying 1200 marks and only the written qualified candidates are called for Medical Test, Psychological Test and Viva Voce. All candidates called for Viva Voce are required to undergo Psychological Assessment, comprising written tests and group tasks. Such tests are designed to assess abilities, attitude, and personality characteristics of the candidates. If a candidate remains absent from the Psychological Assessment, he/she will not be

allowed for Viva Voce. The allocation to various occupational groups is based on merit position, preference of candidates and respective domiciles.

### **Training Programme and Examinations**

Training is mandatory for allocated candidates. After selection and appointment the candidates are considered on probation. Probationer means a person appointed to any occupational group or service. Every allocated candidate first undergoes Common Training Programme (CTP) at the Civil Services Academy, Lahore. After the completion of CTP the probationers join Specialized Training Programme (STP) in their respective academies.

Any probationer who fails to undergo prescribed specialized training and qualify the prescribed examination shall render his/her appointment liable to termination without notice. Probationer has to qualify every examination to the satisfaction of the head of the training institution where he is undergoing training. Four chances are available to qualify the examination. On completion of specialized training, the officers are posted in their respective Departments and Ministries (Rules for CSS, 2009; FPSC Ordinance, 1977).

**Civil Services (Ex-cadre Group).** The other group taken for this study is ex-cadre groups which include all professional and technocrat's jobs other than CSS (Cadre). Ex-cadre includes Defence services, medical, educationist, lawyers, accountants, artists, musicians, engineers, psychologists, meteorologists, geologists, journalist etc.. out of these only three professions have been included in the study. Among the professional hierarchy medical and education are most liked, admired and

considered socially prestigious. Defence services as the name suggests are mainly responsible for security of the country. Keeping in view their importance these three groups have been included in study.

**Ex-cadre Groups.** Among the Ex-cadre groups the first profession selected is Medical Doctors. Physician or a medical doctor leads the medical team caring for patients as the primary health care provider.

Lievens, Coetsier, Fruyt, and Maeseneer (2002) investigated that which personality traits are typical of medical students as compared to other students and which personality traits predict medical student performance. Result revealed that medical studies falls into the group of majors where students scored highest on extraversion and agreeableness. Medical students who scored low on conscientiousness and high on gregariousness are significantly less likely to perform successfully.

Second profession is of Defence forces (Pakistan Army, Air force and Navy). Its mission is to contribute to the security of the state by providing for the Defence of its territorial integrity and to fulfill all roles assigned by Government, through the development of well motivated and effective Defence Forces. In this profession officers are perceived tough people as some situations require both physical and mental toughness to do the job effectively.

Military is an integral part of a nation's political system and level of its influence varies from society. Defence is probably the most intricate single branch of public policy of any kind, even in the complex world of today. It is closely related to nation's external policies. Military is an organization that serves the public at large. The Pakistan Army was inherited from the British and has largely preserved a

regimental system of the internal organization (Ahmed & Rizvi, as stated in Batool, 2003).

Third profession is of teaching/education (College and University Teachers). Teaching profession could be described as a professional occupational group of education sector possessing social, cultural, economical, and scientific dimensions (as cited in Erden, 2007). For many years educators have recognized the importance of the teachers' personality in determining the quality of learning environment. The teacher's personality attributes seemingly affect the development of outstanding academic abilities. A number of characteristics, some of which are related to teacher personality, have been consistently identified as effective teaching skills at the college and University level.

### **Rationale of Present Study**

Substantial body of research has developed indicating that personality constructs play a very important role in explaining why people act as they do within organization (Adler & Weiss, 1988; Day & Silverman, 1989). Personality assessment contributes a major function in applied psychology in all around the world. Similarly in Asian countries like Pakistan the field of personality assessment is largely an important discipline, following the Western tradition and paradigm in psychology (Cheung, Leong, & Ben-Porath, 2001).

The rationale of the study is based on several important assumptions and claims that various personality traits make an individual more suitable for a particular job. It was assumed that executive working in different CSS occupational groups possess personality traits which are common for all and some traits might be unique for each group. This assumption led the researcher to explore the similarities and

differences in personality traits of executives working in seven selected occupational groups. It aimed to investigate whether personality traits of CSS executives differ from those of ex-cadre group executives. The non availability of indigenous instrument to study personality traits of executives working in CSS occupational groups specific to Pakistani culture provide a rationale for development of a new scale.

In recent years, considerable attention has been paid to the study of personality traits in relation to different variables in Pakistan such as job predictor of job performance (Shafique, 2008); relationship between affect intensity and personality traits (Hassan, 2008); comparison of addicts and non-addicts on personality traits and impulsive behaviour (Annala, 2008); music preferences (Naz, 2008).

Review of literature illustrates that over a hundred studies were conducted to see the personality profile differences in different occupations, for instance, teachers (Gough, Durflinger, & Hill, 1968); police officers (Hogan, 1971; Pugh 1985); police culture (Paoline, Myers, & Worden, 2000); effect of personality on executive career success (Boudreau, Boswell, & Judge, 2001); Personality differences across four metropolitan cities of India; individual characteristics for the success in computer programming (DuttaRoy, 2002, 2003) Personality traits of individuals in different specialties of librarianship (Williamson, Pemberton, & Lounsbury, 2008); socio demographic factors associated with personality traits (Al-Halabi et al., 2010); and relationship between personality traits and national character (Allik, Mottus, & Realo, 2010). The general approach was to compare the personality profile of individual working in one occupation to other by using different measures. As each culture is different from other and instruments are developed keeping in view the cultural requirements. Instruments developed in one culture when used in other culture are likely to reflect cultural biases, linguistic phraseology or slang which may affect

comprehension and response patterns of respondents. Usually to overcome such difficulties researchers prefer to adapt, translate or rephrase the terminology which is pertinent to a particular culture. However, the researcher after examining various options available and their implications preferred to empirically develop a scale which was more relevant to the population under study.

In FPSC tests used for personality assessment are based on various projective techniques or adapted versions of standard personality inventories. In presence of multitude of instruments available for assessment of personality traits it may appear that developing a new scale was not essential. However the rationale for developing this scale was based on the reason that no tests/scales were specifically relevant to the population under study. Therefore, it was considered appropriate to develop a scale based on empirical data obtained from the specific CSS Occupational Groups/Services to study similarities/ differences in their personality traits.

The present study will be the first of its kind in Pakistan to develop Personality Assessment Scale and explore the similarities/differences in personality traits of executives in selected seven occupational groups of Civil Services (cadre) and to compare the personality traits of executives of Civil Services (cadre) with those executives who are in ex- cadre jobs i.e., Medical, Defense, and Education profession. Selection of only three occupations was based on the popularity of three professions.

Besides, developing the indigenous instrument this research may contribute to better understanding of patterns of personality traits of civil service executives of selected occupations.



**OBJECTIVES, RESEARCH DESIGN  
AND OPERATIONAL DEFINITIONS**

## OBJECTIVES, RESEARCH DESIGN, AND OPERATIONAL DEFINITIONS

The present research aimed to explore similarities/differences in personality traits of Civil Servants executives working in selected seven occupational groups (cadre) i.e., CTG, CEG, DMG, FSP, ITG, PAAS, and PSP and of executives working in ex-cadre jobs e.g., Medical, Defence, and Education.

### Objectives

Present research has been planned to achieve the following objectives.

1. To develop an indigenous scale for measuring Personality traits of executives working in seven selected occupational groups (cadre) of Civil Services and to determine its psychometric properties.
2. To see the extent to which executives in civil services occupational groups (cadre) are different from ex-cadre executives of Medical, Defence, and Education profession in terms of personality traits.
3. To see between groups and within group similarities and differences in seven occupational groups (cadre) of civil services in terms of personality traits.
4. To explore the differences in personality traits of executives with training (who have completed common as well as specialized training and are working in their respective groups) and without training (allocated candidates who just joined academy).

5. To examine the differences in personality traits of executives with reference to demographic variables; gender, age, education and experience.

### **Research Design**

The research study has been completed in two parts. Part one deals with indigenous development of new measure for the assessment of personality traits of executives working in seven selected CSS occupational groups (cadre). In Part II the Phase I deals with validation and pilot testing of the instrument developed in part I and Phase II is a main study deals to examine the similarities/indifferences in personality traits of executives with reference to different variables.

**Part I: Development of Personality Traits Assessment Scale.** Part I of the study was carried out to develop an indigenous measure namely Personality Traits Assessment Scale (PTAS). This part of the research has been carried out in four phases with independent sample. The procedure followed in the development of PTAS is as follows:

Phase 1: Generation of item pool for Personality Traits Assessment Scale.

Phase 2: Experts evaluation of the items

Phase 3: Factor analysis for selection of final items

Phase 4: Determining reliability and validity of the measure

**Part II: Main Study.** This part consists of two phases. Phase I was a validation and pilot testing of newly developed measure i.e., Personality Traits Assessment Scale (PTAS) which was carried out on a relatively smaller sample. Phase II was a main study conducted on a larger sample.

**Phase I: Validation and Pilot Testing of Scale.** The purpose of Phase I of the study was to determine construct validity of the measure developed in Part I of the research and to provide further empirical evidence concerning the psychometric properties of Personality Traits Assessment Scale (PTAS), Mini Markers (Saucier, 1994) will be used to determine convergent validity of PTAS and Procrastination Scale (Fatimah, 2001) will be used to establish the discriminant validity of the measure. Second focus was pilot testing of the instrument at exploring the similarities /differences in personality traits of executives working in seven selected civil services occupational groups/ services (cadre) and ex-cadre.

**Phase II: Main Study.** Main study was conducted on a larger sample. The objectives of the main study were to explore similarities /differences in personality traits of executive's of seven CSS occupational groups, to see similarities/differences in personality traits of executives, if any, working in Civil Services and on ex-cadre posts, to see the differences in personality traits with reference to demographic variables such as gender, age, education, experience, and to find the differences in personality traits of executives with training and without training. The studies also establish reliability and construct validity of Personality Trait Assessment Scale (PTAS).

### **Operational Definition of Variables**

**Civil Servant.** According to Civil Establishment Code (2007), Civil Servant means a person who is a member of all Pakistan service of a Civil Service of the Federation or who holds a civil post in connection with the affairs of the Federation including any such post connected with defence.

**Occupational Group/Services (Cadre).** Any group or service recruitment to which is made through the competitive examination conducted by the Federal Public Service Commission (FPSC) from time to time against BPS 17 posts under the Federal Government or any Occupational group or service transfer to which is made from the Armed Forces by induction and includes: (a) Commerce and Trade Group (CTG), (b) Customs and Excise Group (CEG), (c) District Management Group (DMG), (d) Foreign Service of Pakistan (FSP), (e) Income Tax Group (ITG) (f) Pakistan Audit and Accounts Service (PAAS), and (g) Police Service of Pakistan (PSP).

**Ex-Cadre Posts/Service.** Other than CSS occupational (Cadre) groups all jobs are categories ex-cadre posts/services, which include all professional and technocrats jobs like medical profession defence, and, education.

**Executive:** An executive is defined as one who class one officer is working in Basic Pay Scale 17 and above.

**Training.** The training prior to specialized training (CTP) undertaken by the probationers of any one occupational group or service and training subsequent to the initial training i.e., specialized training (STP) undertaken by the probationers of an occupational group or service at a training institution or place that the Government may specify.

**PART I: DEVELOPMENT OF THE  
PERSONALITY TRAITS  
ASSESSMENT SCALE (PTAS)**

## **PART I: DEVELOPMENT OF THE PERSONALITY TRAITS ASSESSMENT SCALE (PTAS)**

This part of research was carried out to develop an indigenous measure i.e., Personality Traits Assessment Scale (PTAS). The development of scale was carried out in four phases.

### **Phase-I: Generation of Item Pool for Personality Traits Assessment Scale**

The item pool for the scale was generated through following two sources.

- a) Review of the existing literature.
- b) Enlistment of personality traits required for executives working in selected seven occupational groups of Civil Services (Cadre) .

**a) Review of existing literature for exploration of personality traits.** In order to explore personality traits required for executives working in seven selected occupational groups/services, i.e., CTG, CEG, DMG, FSP, ITG, PAAS, and PSP, the existing literature with relevance to personality traits was extensively reviewed and studied through browsing on internet, exploration from books and journal articles from various sources. The available literature helped in identification of traits. Secondly self-report inventories/questionnaires for assessment of traits were also reviewed to study different dimensions covering the said traits.

After comprehensive study of identified traits list of traits for each group was prepared.

**b) Enlistment of personality traits through questionnaire.** For further exploration of personality traits, open ended questionnaires were administered to executives working in selected occupational groups.

**Sample.** In order to generate further items/traits an open ended questionnaire was administered to seventy (70) executives, male ( $n = 61$ ), female ( $n = 9$ ) working in CTG ( $n = 10$ ), CEG ( $n = 10$ ), DMG ( $n = 10$ ), FSP ( $n = 10$ ), ITG ( $n=10$ ), PAAS ( $n = 10$ ), and PSP ( $n = 10$ ) with age ranging from 25 – 40 years ( $M = 31.17$ ;  $SD = 3.73$ ), education i.e., graduates ( $n = 20$ ) and Post graduates ( $n = 50$ ) and having 4 to 15 years experience ( $M = 9.18$ ;  $SD = 3.67$ ). Data was collected from concerned training academies, and Ministries which include National Police Academy Islamabad, Police Foundation Islamabad, Income Tax Academy Lahore, Civil Services Academy Lahore, Audit and Accounts Training Institute Lahore, Central Board of Revenue now Federal Board of Revenue, Ministry of Commerce and Trade, Ministry of Foreign Affairs, Islamabad National Institute of Public Administration (NIPA) Lahore.

**Instrument.** In order to develop a questionnaire initially research literature was reviewed thoroughly and secondly discussion with experienced officers of CSS occupational groups i.e., CTG, CEG, DMG, FSP, ITG, PSP, and PAAS was made to get the idea. In the light of information getting from two sources it was decided by the researcher and supervisor that a single question may be given to respondents. The



instrument consisted of a single question for the respondents who had to enlist the personality traits of executives working in selected groups.

It was worded as:

To identify similarities /differences in personality traits of executives working in CSS Occupational Groups (cadre) such as CTG, CEG, DMG, FSP, ITG, PAAS and PSP, you are requested to enlist the personality traits ( at least 20) which in your view are especially essential for working in your occupational Group. You can use a single word or a sentence to describe the traits/characteristics (see Appendix-A).

**Procedure.** Special Permission was sought from head of institutions for data collection and then executives were personally approached at their work places. After introduction and defining the purpose of the study, a consent form ( Appendix-E) along with an open ended questionnaire for enlistment of traits were given to executives with written as well as oral instructions. They were also ensured that information given will be used only for research purpose. Administration of a questionnaire was a difficult job as the respondents either due to time constrains or busy schedule were not willing to respond immediately therefore questionnaires were left with the request to complete it within three days. Administration of questionnaires took almost a month. Accordingly after three days respondents were contacted to collect the questionnaires but none was received back. After several reminders data was collected back. It took around three months and return response rate was fifty percent only.

**Results.** After data collection and tabulation of results separate lists of traits were prepared for each occupational group which include Commerce and Trade

Group ( $n = 20$ ), Customs and Excise Group ( $n = 25$ ), District Management Group ( $n = 20$ ), Foreign Service of Pakistan ( $n = 30$ ), Income Tax Group ( $n = 23$ ), Pakistan Audit and Accounts Service ( $n = 30$ ), and Police Service of Pakistan ( $n = 34$ ). When these traits were analyzed for each group it was found that most of the traits are same for all groups such as responsible, intelligent, independent, positive thinking etc (Appendix-B) which are found in all seven groups. It was also observed that there are some traits which convey the same meaning. For example, self-reliant and independent, intelligent, bright, intellectually high, and clear headed; leadership ability and leadership, etc., upright, sincere, honest, loyal to profession, neutral, integrity, and truthful. They were merged and named as leadership qualities, independent, intelligent, Personal integrity. Only those traits were included in final list which were written by minimum three respondents. Final list was prepared by combining the traits of all seven groups. The list was carefully checked by the researcher with the help of supervisor to make it more concise and meaningful. During checking seventeen items/ traits having same meaning but different wording were discarded. These 63 traits were included in the list of item pool.

### **Phase II: Experts Evaluation of Traits**

**Experts.** For further refinement of items/traits seven senior executives having more than 10 years working experience ( one PhD and six with masters qualifications) from seven selected occupational groups (cadre) and six Psychologists, (three PhD and three with M.Phil. qualifications) with same experience were taken as experts. However due to transfer/ postings of officers response was received only

from three executives (cadre) working in District Management Group, Income Tax Group (ITG), and Pakistan Audit and Accounts Service (PAAS).

**Procedure.** They were all contacted individually and after getting their consent for judgment a pool of 63 traits covering three categories/dimensions were presented to them. They were briefed about the scale and requested to seek their expert opinion for identifying the overlapping contents and rechecking of traits with reference to three dimensions.

**Results.** After the expert opinion it was found that there were only 3 traits/items which do not fit in given categories i.e., were well dressed, strong character and avoid favoritism. Therefore these 3 traits/items were dropped from list. Remaining 60 items/traits of the scale were arranged in a form of Likert type scale to collect data for factor analysis.

**Description of the item Pool for Instrument (PTAS).** After experts' opinion 60 adjectives, item pool was finalized. These traits were arranged on a 5 point Likert type scale. All traits of the scale were stated with 5 response categories i.e., extremely essential = 1, very essential = 2, moderately essential = 3, slightly essential = 4, and not essential = 5. Instructions of the scale were as follows. In this scale there are 60 traits, it is requested to identify personality traits on a 5 point scale which in your view are essential for working in your occupational Group. The possible score range on this scale is from 60 -300.. The high score range suggest that executives are more effective with reference to leadership, integrity and emotional maturity (Appendix-C).

### **Phase III: Factor Analysis on the Traits of the Measure and Selection of Final Items**

Phase III of the study was carried out to select the final items. For determination of the final structure of the scale with the help of factor analysis, the item pool generated for Personality Traits Assessment Scale was administered on an independent sample. The details are as follows:

**Sample.** The sample consisted of 319 executives, with basic pay scale 17 to 20; men ( $n=272$ ) and women ( $n=47$ ) of seven occupational groups. Their educational qualifications were graduates ( $n = 100$ ) and post graduates ( $n = 219$ ). The age ranges from 22 to 59 years ( $M =30.28$  &  $SD=6.0$ ). The size of the sample was selected according to Kass and Tinsley (1979) a having between 5 and 10 participants per variable. Sample distribution is as follows:

S.#	CSS Occupational Groups(cadre)	Men <i>n</i>	Women <i>n</i>	Total <i>N</i>
1	Commerce and Trade Group	43	02	45
2	Customs and Excise Group	37	13	50
3	District Management Group	45	05	50
4	Foreign Service of Pakistan	51	04	55
5	Income Tax Group	35	15	50
6	Pakistan Audit and Accounts Service	41	08	49
7.	Police Service of Pakistan	20	Nil	20
	Total	272	47	319

*Note.* CSS = Central Superior Services

*Note:* In Police Service of Pakistan the number of female executive is nil, due to demanding nature of job requirements female generally do not opt this group.

### **Instrument.**

*Personality Traits Assessment Scale.* Personality Traits Assessment Scale used in this study is a 5 point Likert type scale comprising of 60 traits. Five response categories were extremely essential, very essential, moderately essential, slightly essential and not essential were scored as 1, 2, 3, 4, and 5 respectively (Appendix-C).

Demographic information was obtained from respondents regarding their gender, age, education, occupation, and length of experience in job.

**Procedure.** Permission for data collection was obtained from all heads of institutions i.e., Training Academies and Ministries. The sample was approached directly and indirectly (with the help of colleagues, friends and through a representative appointed by each head of institution) by the researcher because the respondents due to time constraints or busy schedule were either not available or not willing to respond immediately. They were given consent form (Appendix-D) along with the questionnaire with written as well as verbal instructions. They were ensured that information given will only be used for the purpose of research and will not be disclosed to any other person or organization. Data was collected from these institutions, Foreign Service Academy Islamabad, National Police Academy Islamabad, Police Foundation Islamabad, Income Tax Academy Lahore, Civil Service Academy Lahore, Audit and Accounts Training Institute, Federal Board of Revenue, Ministry of Commerce and Trade, and Ministry of Foreign Affairs. Data was collected from all Provincial capitals i.e., Peshawar, Lahore, Karachi, and Quetta as well as from Islamabad. After several reminders data was collected back. Response rate was only 50% and especially for police service it was very low i.e., 25% only.

**Results.** Before factor analysis Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and ‘Bartlett test of Sphericity’ were administered to see whether the data is suitable for factor analysis or not. Kaiser (1974) recommends accepting values greater than .5 as barely acceptable, values between .5 and .7 are mediocre, values between .7 and .8 are good, values between .8 and .9 are great, and values above .9 are superb.

**Table 1**

*Kaiser-Meyer-Olkin (KMO) Measure of Sampling Adequacy and Bartlett Test of Sphericity of PTAS (N = 319)*

Kaiser-Meyer-Olkin Measure	Bartlett Test of Sphericity ( $\chi^2$ )	df	p
.93	.937	1770	.000

Table 1 shows that value of Kaiser-Meyer Olkin Measure of sampling adequacy is .93 which indicates that data is superb for factor analysis. The Bartlett test of sphericity value .937 is significant at  $p < .000$  also support the idea.

The data of the study were subjected to statistical analysis in order to select the traits for the final scale and for testing the dimensionality and construct validity. The selection of rotation used in factor analysis depends upon whether the underlying factors are related or not. There are two types of rotations. The first is orthogonal rotation; it means unrelated and other form is oblique rotation (factors correlated). Selection of method depends on theoretical grounds. When factors are orthogonal or independent then Varimax Rotation is an appropriate method. The choice of Varimax Rotation is appropriate here because the factors were expected to be orthogonal rather than correlated. 60 traits were factor analyzed through Exploratory Principal

component Analysis. In exploratory factor analysis the investigator employs a stepwise analysis involving the examination of various solutions. Initially different rotations were obtained. Using Varimax Rotation Factor Solution two, three, four and six factors solution was examined before deciding on a three factor solution. The Varimax rotation of the factor matrix resulted in theoretically meaningful and more interpretable factor solution.

**Table 2**

*Factor matrix of the 60 items of personality Traits assessment scale (PTAS) through Principal Component Analysis using Varimax Rotation (N = 319)*

Item Nos.	Factor-I	Factor-II	Factor-III
V1		.501	
V2		.560	
V3		.622	
V4			
V5			.620
V6			.552
V7		.605	
V8		.691	
V9		.751	
V10		.439	
V11		.672	
<b>V12</b>			
V13			
V14			.529

*Continued...*



Item Nos.	Factor-I	Factor-II	Factor-III
V15	.468		
<b>V16</b>	.416	.410	
V17			.408
V18			.576
V19	.501		
V20		.566	
V21		.600	
<b>V22</b>	.432	.490	
V23			.484
V24		.526	
V25			
V26	.553		
<b>V27</b>	.466	.530	
V28	.555		
V29	.410		
V30	.558		
V31	.617		
V32		.581	
V33	.491		
V34		.411	
V35			
V36	.551		
V37			
V38	.673		

*Continued...*

Item Nos.	Factor-I	Factor-II	Factor-III
V39	.514		
V40	.592		
V41			
V42	.543		
V43	.635		
V44	.557		
V45	.605		
V46	.537		
V47	.567		
<b>V48</b>	.513	.421	
V49	.593		
<b>V50</b>	.563	.463	
V51			.521
V52	.543		
<b>V53</b>	.512	.433	
V54	.514		
V55			
V56	.452	.499	
<b>V57</b>	.522	.444	
V58	.546		
V59	.577		
V60	.441		

*Note.* Traits having factor loadings >.40 appearing in more than one factor have been bold.

Table 2 presents the factor loadings of 60 traits. Factor loading equal to or greater than .40 was used as inclusion criteria of items to interpret the factors. Thus the traits with less than .40 factor loadings and those traits that correlate on more than one factor were eliminated. The items included in each factor according to the criterion have been presented in Table 2 which shows the factor loadings of traits on three factors. It is clear from result that most of the traits fall on first factor i.e., 25. There are 13 traits in factor II and 7 traits in factor III having loadings of .40 and above. All the traits are positively correlated with each other.

*Eigen values.* Kaiser (1960) recommended retaining all factors with eigen values greater than 1. This criterion is based on the idea that the eigen values represent the amount of variation explained by a factor and that eigen value of 1 represent a substantial amount of variation. Jiliffe (1972, 1986) reports that Kaiser criterion is too strict and suggests the third option of retaining all factors with eigen values more than .7. Research has indicated that Kaiser criterion is accurate when number of variables is less than 30, when sample size exceeds 250 and average communality is greater than or equal to .6. In any other circumstances use of scree plot is appropriate provided the sample size is greater than 200 (Stevens, 1992, pp.378-380).

**Table 3***Eigen values and variance explained by four factors*

Factors	Eigen Value	% of Variance	Cumulative %
I	18.20	29.87	18.64
II	3.01	5.49	33.70
III	2.03	3.71	38.73
IV	1.02	2.51	41.98

Eigen values represent how much variance is explained in terms of the average original variable; an eigen value of 1.0 means that a factor accounts for as much of the variance as the average original variable Table 3 shows that Factor I has an eigen value of 18.20 which explains 18.64% percent of total variance. Factor II has an eigen value of 3.01 which explains 33.70% of the total variance, where as Factor III has an eigen value of 2.03 which explains 38.73% of total variance and factor IV has an eigen value of 1.02 which explains 41.98 of total variance. Though Factor IV has eigen value 1.02 but all four items of this Factor have loadings on more than one factors and they do not match with each other on face value. Therefore this factor has been excluded.

These factors can be further evaluated using Cattell's (1966) Scree Test which plots the incremental variance accounted for by each successive factor to determine the point at which explained variance levels out.

*Scree Plot.* A Scree plot is a simple line segment plot that shows the fraction of total variance in the data as explained by each component. This figure represent the scree plot for factor matrices of 60 traits/items of personality Traits assessment scale (PTAS) through Principal Component Analysis using Varimax Rotation method. The x-axis contains the principal component sorted by decreasing fraction of total variance explained by each component. The Y-axis contains the fraction of total variance explained. It is clear from the figure that a large variance is defined by only three factors. Cattell's (1966) scree test supported the determination and selection of three factors as indicated by the high Eigen values of these factors. With a sample of more than 200 participants, the scree plot provides a fairly reliable criterion for factor selection (Stevens, 1992). The previous research also suggests that the scree test is a relatively accurate decision rule (Zwick & Velicer, 1982). On the basis of scree plot three factors have been retained which are more meaningful (Figure 1).

# Scree Plot

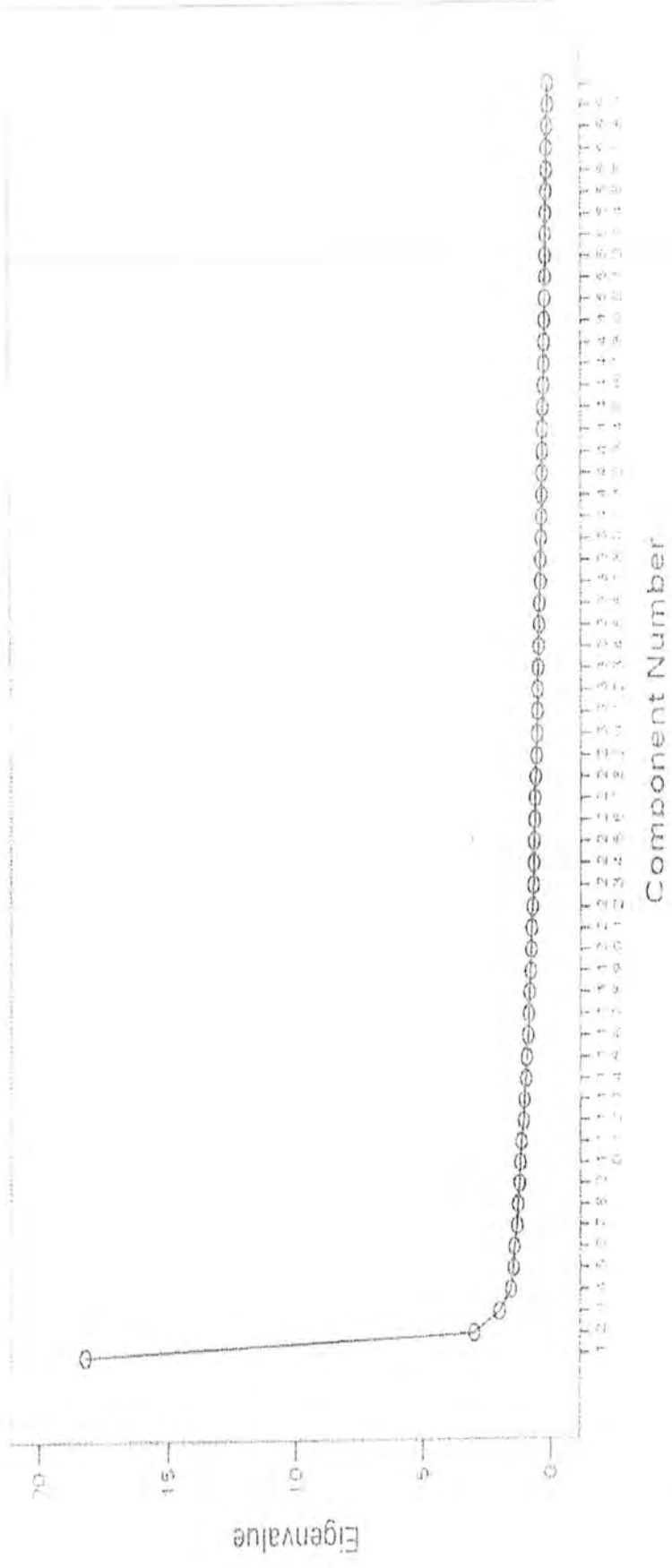


Figure 1. Scree plot

Total 45 items were selected for scale after factor analysis. For identification of dimensions and labeling of the factors, the items with a factor loading equal or greater than .40 have been examined in detail. The items which have .40 and above loading on first factor are related to Leadership Ability (No. of items=25) and items on second factor are expressing Integrity (No. of items=13) and those items which are loaded high on third factor are reflecting Emotional Maturity (No. of items=7). Items having less than .40 loading and loaded on more than one factor have been excluded. On the bases of contents on these highly loaded items these three factors have been labeled as Leadership Ability, Integrity, and Emotional Maturity. These 45 items related to three dimensions may constitute the three sub scales of personality Traits. These three factors have been operationally defined as:

- (a) *Leadership Ability*. Leadership is the ability to cause their followers to accomplish the desired work. Some of the personality traits associated with leadership are such as self-controlled, adaptable, emotionally stable, vigilant, intelligent, effective interpersonal skills, willing to accept failures, etc.
- (b) *Integrity*. Integrity refers to do the right thing the right time and being honest, responsible and observance of social, ethical, and organizational norms in work related activities. Some of the personality traits associated with integrity is straightforward, impartial, fair, consistent, sincere etc.
- (c) *Emotional Maturity*. Emotional maturity is the ability to assess a relationship or situation and to act according to what is best. It demonstrates frustration tolerance and emotional control. Some of the personality traits associated with emotional maturity is tough minded, positive thinking, etc.

**Phase IV: Determination of Reliability of the Instrument.** Reliability is one of the major indices of the efficiency of any measurement. The extent, to which one can depend upon a test, is very much determined by the reliability of the scale. Reliability can be viewed as being repeatability or ‘consistency’ of scores.

After selection of 45 items of the scale, the alpha reliability and split half reliability coefficient of Personality Traits Assessment Scale (PTAS) were calculated.

**Table 4**

*Alpha reliability of subscales of Personality Traits Assessment Scale (PTAS)*

*(N = 319)*

Measure	No. of items	Alpha Reliability Coefficients
Leadership Ability	25	.93
Integrity	13	.88
Emotional Maturity	7	.66

The internal consistency of the dimensions of PTAS was established by calculating coefficient alpha for each sub-scale which ranged from .66 to .93 (see Table 4). Higher alpha value is the sign that Personality Traits Assessment Scale is a reliable measure.



**Table 5**

*Inter-correlations of sub scales of Personality Traits Assessment Scale (PTAS) (N = 319)*

Sub Scales	Leadership Ability	Integrity	Emotional Maturity
Leadership Ability	-		
Integrity	.51**	-	
Emotional Maturity	.30*	.42*	-

\* $p < .01$  \*\* $p < .000$

The results in Table 5 shows that the inter correlations obtained among subscales are .30 to .51 which are satisfactory providing evidence that they assess different dimensions of the construct such as leadership ability, integrity and emotional maturity.

***Personality Traits and CSS Occupational Groups (cadre).*** In order to see the similarities/ differences in personality traits of executives, in seven selected CSS occupational groups (cadre) One Way Analysis of Variance (ANOVA) was computed.

**Table 6**

*Comparison between occupational groups (cadre) on sub scales of Personality Traits Assessment Scale (PTAS) (N = 319)*

Measures	CTG (n = 45)		CEG (n = 50)		DMG (n = 50)		FSP (n = 55)		ITG (n = 50)		PAAS (n = 49)		PSP (n = 20)		F	p	$\eta^2$	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD				
PTAS																		
Leadership Ability	100.41	22.87	101.26	21.94	102.54	10.25	105.79	8.67	101.10	9.33	91.90	33.83	101.17	12.81	1.116	.296	.016	
Integrity	60.80	12.13	61.86	8.15	61.12	7.27	63.55	5.98	57.50	20.38	61.75	6.55	60.59	8.36	.435	.712	.006	
Emotional Maturity	25.75	7.74	24.71	3.13	25.07	3.24	25.36	3.15	25.31	3.76	23.79	3.86	25.16	3.83	.417	.868	.005	
<i>df = 317</i>																		

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

Table 6 reveals differences of seven CSS occupational groups (cadre). One Way Analysis of Variance (*ANOVA*) was computed to investigate whether these occupational groups are similar or different in terms of personality traits specifically on three subscales of personality Traits Assessment Scale (PTAS). Results indicate that statistically nonsignificant differences exist between these seven CSS occupational groups on all sub scales. Findings indicate that all these groups are similar on most of the traits.

**Discussion.** The main purpose of this part was to develop a new measure to explore the similarities/differences in personality traits of executives working in seven selected occupational groups (cadre) of Pakistan Civil Services out of 12 occupational groups. These seven groups were selected keeping in view their popularity among candidates (FPSC Annual Report, 2003) due to good service structure, job security, rapid promotions, authority, status, etc. Other groups are considered least preferred Groups among candidates. To see similarities/differences in traits of executives in these occupational groups, a valid and reliable measure was required as no measure specifically pertinent related to Pakistani Civil Service executives was available.

In Pakistan Civil Services selection of officers (BS-17) in these Occupational Groups/Services made through competitive examination every year, is based on results of written examination and viva voce marks which determine the merit of candidate for allocation to groups of their choice. After allocation all officers have to initially undergo Common Training Program (CTP) and later Specialized Training (STP) in their respective occupational Academies. A number of standardized and valid personality instruments are available but no instrument was found either foreign

developed or in Pakistan which have been used specially to assess personality traits of Pakistani Civil Service executives. Foreign developed tests could have some cultural biases and therefore cannot be used without making some changes demanded by cultural requirements, further they are not developed keeping in view the unique characteristics of Pakistani Civil Service executives. These groups are unique as the executives working in these groups occupy the positions responsible for policy making, implementation, and policy analysis in the government machinery at the federal, provincial and district levels. These executives have wide ranging chances of mobility from one organization/department to another and many parts of the country and also foreign posting, etc. It continues throughout the service progression and facilitates exposure, growth and grooming in multiple fields. They also enjoy opportunity to interaction with representative from across international community intellectuals and provide them a chance for understanding of different cultures, civilizations and also representing the country across the world.

Keeping in view the non availability of such a measure this study intended to develop an instrument that could be used for assessment of candidates for selection purposes. Selection of CSS candidates is made in view of their strengths and weaknesses. Existing tests indicate what traits candidates possess while this newly developed instrument was assumed to highlight some required traits for each occupational group where possible.

The scale was developed through standardized procedure in four phases. In phase-I initially an item pool of traits was generated by reviewing existing literature through journals and different search engines, etc. Second step was enlistment of personality traits essential in these specific groups. This was done through an open ended questionnaire. After data collection and tabulation of results separate lists of

traits for each occupational group were prepared. When these traits were analyzed for each occupational group it was found that most of the traits are same for all groups such as responsible, intelligent, independent, positive thinking etc which are found in all seven groups. It was also observed that there were some traits which conveyed the same meaning, like self-reliant and independent, intelligent and intellectually high, leadership ability and leadership etc. Traits conveying the same meaning were either merged or deleted. Those traits were included in the final list which was identified by at least three respondents. Final list was prepared by combining the traits of all seven groups. This final list was evaluated by the researcher with the help of supervisor. They found seventeen items/traits having same meaning were discarded and remaining 63 items/traits were included in the list of item pool. Phase II was expert's evaluation of traits for further refinement of items /traits. After expert evaluation only three item/traits such as well dressed, strong character and avoid favoritism were further dropped from list. Remaining 60 items/traits were arranged in a 5 point Likert type scale to collect data (see Appendix-C).

Third phase was the application of hierarchical exploratory factor analysis to decide which factors are statistically important. As it was an exploratory study therefore exploratory factor analysis was carried out. Initially different rotations were obtained using Varimax Rotation factor solution. Eigen values represent how much variance is explained in terms of the average original variable. Two to six factors were extracted. Three factors having factor loading above 2 were retained. Each factor comprised of substantial number of traits. It means only those factors above the Eigen values associated with a variant indicate the substantive importance of that factor (Field, 2005).

One technique advocated by Cattell (1966) is to plot a graph of each Eigen value (Y-axis) against the factor with which it is associated (X-axis). This graph is known as Scree Plot. According to Steven (1992), scree plot provides a reliable criterion for factor selection. By graphing the Eigen values relative importance of each factor becomes apparent. Following this technique Scree Plot analysis was carried out to reconfirm the number of factors to be rotated which provided a strong evidence of the existence of three factors multidimensional. There is a sharp descend in curve (see Figure 1) Cattell (as cited in Field, 2005) argued that the cut off point for selecting factors should be at the point of inflexion of this curve. Keeping in view this criteria three factors have been extracted.

After factor analysis out of 60 items/traits, 45 items/traits were retained. Those items which were loaded on more than one factor (see Table-2) and those items having factor loading below .4 were not included, Maximum items fall on factor one i.e., Leadership Ability has 25 items/traits. The retained items are like self-control, emotionally stable, able to appreciate others, practical, frustration tolerance, adaptable, effective interpersonal skills, consistent, willing to cooperate, well groomed, ability to accept failures, vigilant, intelligent, keen observer, expressive, good in crisis management, imaginative, effective in communication skills, graceful, ability to assess, target oriented, logical and competent. Leadership is one of the important factors in study of personality and it is essential for the organized functioning of a society. Heads of government organizations usually come through Civil Services. Leadership ability is equally important for other professions such as Military, Medicine, and Education etc. Leadership is the most vital ingredient for Pakistan Defence Forces, Doctors and Educationist. Leadership abilities are essential in workplace, especially for executives who aspire to move up into the rank of

management. Leadership is a function which is important in all levels of management. Executives working in these occupational groups have their role in administrative cadres, occupying leadership positions. Due to demanding nature of work these executives perform, it is essential for them to formulate plans and policies and ensure their implementation. Among the various characteristics required of an executive in leading roles, integrity, uprightness and emotional maturity are the most important.

The second factor i.e., Integrity has 13 items/traits, these are straightforward, responsible, dedicated, impartial, efficient, upright, confident, fair, sincere, punctual, patriotic, disciplined and public service oriented. Integrity is second important parameter which is considered for recruitment of CSS candidates at the time of psychological assessment. Integrity is one of the essential aspects for working in any institution. Integrity is not only a matter of being honest, keeping one's word deserving the rules of organization, and respecting the responsibility and authority of different people, but also avoiding misperceptions, and resist pressures (Levinson, 2002). Integrity is a critically important aspect of working at executive level position. Integrity is a foundation of any successful organization and functioning of government as it carries the burden of financial transparency of public funds.

Third factor Emotional Maturity, consists of 7 items/traits i.e., traditional, anxious, adventurous, secretive, dogmatic, tough-minded and positive thinking. Emotional maturity is very important parameter at the time of selection/recruitment of candidates for CSS occupational groups. Emotionally mature persons can adjust in any environment easily. Emotional maturity is one of the important traits required for working at executive level position. Emotional maturity is not all about behaving and acting professionally but it is also regulating personal ambitions and feelings when

they are in contradiction with an individual's responsibilities. These traits are also important for ex-cadre executives i.e., defence, medical and education profession.

Phase IV was determination of reliability of the instrument. In present study reliability of the scale was established. For this purpose Cronbach's alpha reliability was computed for sub scales of Personality Traits Assessment Scale (see Table 4). Result showed high alpha coefficients indicating good internal consistency. Inter scale correlations (see Table 5) were also computed for the three sub scales and all demonstrated positively significant relationship with each other. PTAS emerged as a self report measure to assess personality traits with three subscales. The PTAS could be helpful to assess personality traits of executives working in CSS occupational groups. The higher scores on PTAS reveal high level of possession of these traits.

After development of new measure, before validation, analysis was carried out to explore the similarities/differences, if any, in personality traits of executives working in selected seven CSS occupational groups. For this purpose analysis of variance (*ANOVA*) was carried out. The results (see Table-6) indicate nonsignificant differences in personality traits of executives working in these seven occupational groups. Candidates who appear in CSS have same trait of competition, ambitious nature and desire to power, authority and status and this can also be attributed to restricted structural choices due to limited opportunities available in public sector in Pakistan. Candidates do not have much choice in selection of career. All the candidates who appear in CSS primarily prefer groups like PSP, DMG, FSP, and CEG due to prestige and authority. All officers have to undergo same system of selection and best one are selected and allocated. We can say that these traits are common traits which are required for all services; only minor differences can be in degree of possession of certain traits.



Finally in part I of the present study, an indigenous Self-report measure PTAS on Pakistani Civil Service executives has been successfully developed. PTAS is found as a reliable measure to assess personality traits for executives working in cadre and ex-cadre groups. To establish psychometric properties of the instrument, other analysis, such as reliability coefficient and validity i.e., convergent and discriminant validity, would be carried out in next part of the present study.

**PART-II: PHASE 1: VALIDATION  
AND PILOT TESTING OF  
PERSONALITY TRAITS  
ASSESSMENT SCALE**

## **PART-II: VALIDATION AND PILOT TESTING OF PERSONALITY TRAITS ASSESSMENT SCALE**

In Part-II Phase I of the present research was aimed to determine construct validity and to provide further empirical evidence related to psychometric properties and pilot testing of the new measure. The reliability was measured by using Cronbach's Alpha. The convergent validity of the scale was determined by finding the relationship with Mini Markers Set (Saucier, 1994) based on Five-factor model of Goldberg (1992).

The Five-Factor Model of personality is a version of trait theory which holds that the many ways in which individuals differ in their enduring emotional, interpersonal, experiential, attitudinal, and emotional styles can be summarized in terms of five basic factors called extraversion (E), conscientiousness (C), agreeableness (A), emotional stability (ES) and openness to experience (O); (McCrae & Costa, 1985, 1986), because it promises to provide comprehensive framework for the description of individual differences (Digman, 1990). The researcher found this inventory closer to the objective of the study. It is also simple and less time consuming. Mini Markers include variables which are more nearer to the five factors and evidence of its reliability and validity are extensive (Saucier, 1994).

Discriminant validity was determined by finding the relationship with Procrastination Scale. Procrastination has been defined as the purposeful postponement or delaying of the performance of a task or the making of the decision (Ferrari, 2001; Milgram, Mey-Tal, & Levison, 1998). This scale was selected because procrastination has been shown to be related to personality traits such as self-handicapping (Midgley, Arunkumar, & Urdan, 1996), self-esteem (Beck, Koons, & Milgrim, 2000), and anxiety level (Haycock, McCarthy, & Skay, 1998).

Findings of previous studies showed that high trait procrastinators will complete and return the assigned task later than low trait procrastinators (Filho & Yuzawa, 2001). There is a positive direct relationship between procrastination and missing deadline, and a negative direct relationship between procrastination and task preparation (VanEerde, 2003). Discriminant validity can be established when a particular measure has a very low correlation or has no correlation with the measure of some other trait or construct which is predicted to be a distinct or unrelated to the construct being studied (Muchinsky, 2007).

### **Phase-I: Validation and Pilot Testing of Scale**

Before conducting the main study validation study and a pilot testing was carried out on a smaller sample for pre testing and validation of the instrument and to achieve the following objectives.

1. To find out the psychometric properties of a newly developed measure Personality Traits Assessment Scale.
2. To determine the discriminant validity between Personality Traits Assessment Scale and Procrastination measure.
3. To see similarities/differences in personality traits of executives of CSS occupational groups (cadre) and ex- cadre groups.
4. To find out the differences in personality traits with reference to demographic variables such as gender, age, education and experience.

### Validation of the Personality Traits Assessment Scale

This part of the study was carried out to determine the convergent and discriminant validity of a newly developed measure. The convergent validity of the (PTAS) scale was explored by finding out the relationship between the scores of Personality Traits Assessment Scale and the scores on Mini Markers Set (Saucier, 1994).

**Sample.** Sample consisted of 143 executives male ( $n = 118$ ) and female ( $n = 25$ ); age range 22 to 59 ( $M = 30.64$  &  $SD = 7.37$ ); Graduates ( $n = 41$ ) and Post Graduates ( $n = 102$ ). Further distribution of executives is as follows; CTG ( $n = 10$ ), CEG ( $n = 19$ ), DMG ( $n = 14$ ) FSP ( $n = 15$ ), ITG ( $n = 20$ ), PAAS ( $n = 15$ ) and PSP ( $n = 10$ ). Data of ex-cadre posts include Medical Officers, all graduates ( $n = 10$ ), male ( $n = 6$ ) and female ( $n = 4$ ), Defence Officers, 15 graduates and 5 postgraduates ( $n = 20$ ), all male, and Educationists, 6 M.Phil and 4 post graduates. ( $n = 10$ ), male ( $n = 6$ ) and female ( $n = 4$ ); age range 24 to 59 ( $M = 37.00$  &  $SD = 9.83$ ).

**Instruments.** Instruments used were a newly developed Personality Traits Assessment Scale (PTAS), two standardized scales i.e., Big Five Mini Markers (MMS) (Saucier, 1994), Urdu version of Procrastination scale (Fatimah, 2001) and demographic information sheet were used. Detail of the instrument used in present study is as follows:

**Personality Traits Assessment Scale (PTAS).** Personality Traits Assessment Scale (Appendix-D) was developed in first phase. It is a 45 traits adjective self report measure of personality traits. The scale measures individual differences in personality traits of executives working in different occupations. It is a Likert type 5 point rating

scale ranges from very accurate to very inaccurate (very accurate = 5, moderately accurate=4, uncertain = 3, moderately inaccurate = 2, and very inaccurate = 1). PTAS is a multidimensional measure of the traits. The three sub scales were labeled as (a) Leadership Ability (b) Integrity, and (c) Emotional Maturity. In this scale all items are in positive direction as negative items were automatically excluded due to low factor loading. Total score of the 45 items of PTAS can be ranged from 45 to 225. The high score on each dimension indicates the more healthy personality.

- (a) *Leadership Ability*: This sub scale include 25 traits/items and having alpha reliability .95. Leadership is the ability to cause their followers to accomplish the desired work Personality traits associated with leadership are such as alertness, intelligence, drive to exercise, initiative, social maturity, resourcefulness, effective interpersonal skills, willing to accept failures, tolerance for stress etc. The score on this subscale ranged from 25 to 125.
- (b) *Integrity*: The second subscale consists of 13 traits/items and having alpha reliability.93.Integrity refers to do the right thing the right time and being honest, responsible and observance of social, ethical, and organizational norms in work related activities. Some of the personality traits associated with integrity is straightforward, impartial, fair, consistent sincere etc. The score on this subscale ranged from 13 to 65.
- (c) *Emotional Maturity*: Emotional maturity includes 7 traits/items and its reliability is .54. Emotional maturity is the ability to assess a relationship or situation and to act according to what is best .It demonstrates frustration tolerance and emotional control. Some of the personality traits associated with emotional maturity is tough minded, positive thinking etc self satisfaction. Score range is from 7 to 35.

*Big Five Mini Markers.* The second instrument used is the Mini Marker Set (Saucier, 1994) (Appendix-F). Permission to use MMS (Appendix-G) This scale was introduced to cater the requirements of researchers who are interested to use a simple structured measure of the Big Five Factors. It is an abbreviated version of 100 – adjective markers (Goldberg, 1992). The scale consists of 40 adjectives, eight in each scale, and measures the five factors as given in Big Five Factor Model of Goldberg (1992). These five factors are extraversion measured by adjectives like bold, energetic (32, 13, 2, 11, 28, 25, 1, & 40), agreeableness measured by cooperative, kind (30, 39, 20, 6, 4, 38, 27, & 15), Conscientiousness by efficient, organized (22, 10, 31, 24, 9, 29, 17, 3), emotional stability by unenvious, relaxed (36, 26, 21, 19, 33, 12, 34, 14), and intellect/openness is measured by complex, deep (7, 16, 23, 18, 5, 8, 35, 37). All these scales include positive and negative adjectives/items. Mini Markers is a 9 point rating scale but for the convenience of respondents Likert type 5 point rating scales has been used ranging from very inaccurate to very accurate. There are no cut off points for the dimensions/subscales that make a person characteristically conscientious or emotionally stable.

The score for each item in all the five scales are ranging from 1-5. Items having negative loadings (Extraversion: 28, 25, 1, 40; agreeableness: 4, 38, 27, 15; Conscientiousness: 9, 29, 17, 3; emotional stability: 21, 19, 33, 12, 34, 14; and intellect or openness: 5, 8, 35, 37) are reversed in the scoring process. The sum of scores for each scale is then divided by 8 (total number of items in each scale) to arrive at the mean response value for items on the given scale.

The variables included in the Mini Marker are relatively close to the cores of the five personality factors. In comparison to original scale this abbreviated version is simple in terms of language. Factors from the Mini-Markers correspond closely to

those derived from the full set of 100 Markers. Factors derived from the Mini-Markers correlated 0.92 to 0.96 (raw data) and 0.91 to 0.96 (2 scored data) with the corresponding factors derived from the full Markers (Saucier, 1994). Mean inter item correlations for the Mini Marker 40 items scales are always higher than those for the 100 markers (typically by .05 to .10) where as alpha coefficients are consistently lower (typically by .05 to .10) as compared to full Marker Sets but these are still reasonably on higher side ranging from 0.78 to 0.82.

Some of the virtues of the 40 item Mini Markers appear to be (a) fewer difficult items and (b) lower inter scale correlations. A third virtue decrease in subject time required (Saucier, 1994). A 40 item inventory can be completed by most subjects in approximately 5 minutes and can be expected to produce reasonable Big Five factors even in rather small samples. Goldberg (1992) noted that relatively small set of variables can serve as markers of the Big Five structure and that variables administered in the unipolar format appear to be more robust across samples than are bipolar scales. It has proven one of the most psychometrically reliable (Mooradian, & Nezlek, 1996) and is being employed widely in personality research (Diefendorff & Richard, 2003) .Mini Markers has also been used in researches in Pakistan to study personality and its reliability is  $\alpha=.83$  for English version (Shahid, 2006) and for Urdu version  $\alpha=.67$  (Manzoor, 2000);  $\alpha=.75$ , (Khan, 2008).

*Procrastination Scale (Translated Version) (Fatimah, 2001).* 16 items Procrastination Scale developed by Tuckman (1991) measures the tendency to delay task initiation completion, as well as tendencies toward indecisiveness and poor time management in the completion of tasks. Reliability alpha of the scale is .86. For the present research translated version (Urdu) of the scale was used (Appendix-H).



Permission to use scale see (Appendix-I) The scale is a Likert type scale with four response categories i.e., that's me for sure = 1; that's my tendency = 2; that's not my tendency = 3; that's not me for sure = 4. Score In producing total score reverses the rating scale prior to summing across the 16 items so that higher scores indicated higher procrastination. Maximum scores on this scale range from 16-64. A high score is indicative of the greater tendency to procrastinate.

Tuckman (1991) demonstrated internal consistency of Procrastination Scale (.90). Tuckman (1991) and Howell and Wastson (2006) reported significant association between Procrastination Scale scores and behavioral measures of Procrastination ( $r = .54$  &  $.38$  respectively). Urdu version of procrastination scale has been used in the research area of Pakistan (Fatimah, 2001; & Nazish; 2003). Nazish used this scale to see relationship between self-efficacy and procrastination among college student. The alpha reliability of Urdu version is found to be 0.60 and split half is .49 (Fatimah, 2001) and .86 (Nazish, 2003). Results from various studies yield a high internal consistency of the procrastination scale.

***Demographic Information.*** Demographic information was also collected to study the relationship of personality traits with gender, age, education, experience, and occupation.

***Procedure.*** After selecting the scales to be used for study first of all permission to use the scale was obtained from authors. The permission to use the scale is attached in appendices (see Appendix – G & I)

Special permission from heads of academies and ministries through letters was obtained to collect data. Executives were approached by visiting different training

academies, and Ministries which includes National Police Academy Islamabad, Police Foundation Islamabad, Income Tax Academy Lahore, Civil Services Academy Lahore, Audit and Accounts Training Institute Lahore, Central Board of Revenue now Federal Board of Revenue, Ministry of Commerce and Trade, Ministry of Foreign Affairs, Islamabad National Institute of Public Administration (NIPA) Lahore. All the executives were given consent form along with PTAS, MMS, Procrastination Scale and demographic sheet in a form of booklet along with consent (see Appendix-E) form with written instructions. They were also given verbal directions for better understanding and clarity. All executives had to complete all three personality scales. They were requested PTAS to be completed first and then MMS and procrastination scale. Confidentiality was also ensured that the results would be used for research purposes only. Due to busy schedule and other appointments they could not complete the questionnaires immediately. Therefore questionnaires were collected later at their convenience. The data was examined closely and only those were retained which were fully attempted and information provided was complete.

**Results.** For the purpose of analyzing the results through statistical procedure, first reliability analysis was carried out to check the internal consistency of the newly developed measure. Analysis of Variance (ANOVA) was also applied to see relationship between different variables. For this procedure SPSS Windows 13 (Statistical Package for Social Sciences) was used. Results in the form of table are given.

1. To find out psychometric properties of the newly developed scale, reliability and validity was determined. To study the reliability of the scales internal consistency of traits was computed through Cronbach's alpha coefficient. To study the convergent and discriminant validity of the scale, relationship between the scales and sub scales, inter scale correlations were computed.
2. To explore differences in personality traits of executives within and between seven selected occupational groups one way analysis of variance was computed. To see the significance of occupation wise difference i.e., cadre and ex-cadre posts; executives with training and without training Mean, Standard Deviation was computed and significance of difference between mean was studied by applying t-test.
3. To see the significance of difference in personality traits of executives with reference to demographic variables i.e., gender and education, t-test was computed and to see significance of difference with reference to age and job experience one way analysis of variance was computed.

**Reliability Estimate of Scales.** To determine the reliability of all the scales alpha reliability coefficient was calculated. The following table shows alpha reliability of PTAS, MMS and Procrastination Scale.

**Table 7**

*Alpha reliability coefficient of sub scales of Personality Traits Assessment Scale (PTAS) (N = 103)*

Sub Scales of PTAS	No. of items	Alpha Reliability Coefficients
Leadership Ability	24	.95
Integrity	14	.93
Emotional Maturity	7	.54

Table 7 indicates that Cronbach's alpha coefficients for PTAS subscales i.e., Leadership Ability is .95, Integrity, is .93 and for Emotional Maturity is .54. Reliability of two subscales i.e., Leadership Ability and Integrity is quite high.

**Table 8**

*Alpha reliability coefficients of subscales of Mini Markers (MMS) (N = 103)*

Subscales of MMS	No of items	Alpha Reliability Coefficients
Extraversion	8	.49
Agreeableness	8	.78
Conscientiousness	8	.82
Emotional Stability	8	.59
Openness to experience	8	.51

Table 8 indicates that Cronbach's alpha indices of subscales of Mini Markers extraversion is .49, agreeableness .78, conscientiousness .82, emotional stability .59, and openness to experience is .51. Reliability of all sub scales is satisfactory.

**Table 9**

*Alpha reliability coefficient of Procrastination Scale (N = 103)*

Measure	No. of items	Alpha Reliability Coefficients
Procrastination Scale	16	.72

Table 9 shows alpha reliability coefficient of Procrastination Scale i.e., .72 which is satisfactory.

***Construct Validity of the Personality Traits Assessment Scale (PTAS).***

Validity refers to the extent to which a test measures what it claims to measure (Cronbach & Meehl, 1955; Wiggins, 2003). Campbell and Fiske (1959) were of the opinion that if different methods are used to assess more than one trait or construct, the correlation among these measures will tend to form a multi trait multi method matrix. If multiple measures of each of the construct show high correlations with each other, it demonstrates evidence of convergent validity. If the correlations among these measures are smaller than the correlations between different measures of the same construct these appears to be an evidence for discriminant validity. Correlation techniques are an appropriate method to test the convergent and discriminate validity (Shavelson, Burstein, & Keesling, 1977).

This part of the study was conducted to determine the construct validity of the scale. The construct validity of the newly developed measure was established by determining the convergent and discriminant validity of the measure i.e., Personality Traits Assessment Scale (PTAS). The convergent validity of the PTAS was studied by examining the relationship of Personality Traits Assessment Scale (PTAS) with Big Five Mini Marker Set (MMS) (Saucier, 1994). Discriminant validity was studied by analyzing the relationship of PTAS with Procrastination Scale (Fatimah, 2001).

To establish the construct validity of a measure, it is of crucial importance to establish convergent validity. The present study aimed at testing the convergent validity of the PTAS. Therefore, the association of PTAS with the standardized measure of Personality trait i.e., Big Five Mini Markers was examined. Evidence for the convergent validity of PTAS came from the high positive and significant correlation (see Table-10) with the MMS. In addition sub scales of the PTAS were also found to be positively correlated with the MMS. It indicates that both scales, that is PTAS and MMS measure the same construct.

For any personality measure, it is of critical importance to establish its construct validity (Bagozzi, 1993). Pertinent to construct validity is discriminant validity. It is therefore, necessary to demonstrate that our test is unrelated to variables that are not postulated to reflect, which is known as discriminant validity (Compbell & Fiske, 1959).

*Convergent Validity of Personality Traits Assessment Scale (PTAS).* All the traits of the PTAS have been empirically identified through factor analysis. However, for determination of convergent validity, the Big-Five Mini Markers (Saucier, 1994) was used because of its universality, robustness across time, and context. The objective of the study was to determine whether the measure of Personality traits would perform in a fashion consistent with expectations based on theory. Therefore, the relation of PTAS with its theoretical linked variable was assessed to verify Convergent validity of the PTAS. Positive correlation was expected between the two variables.

**Table 10***Correlation matrix of PTAS and MMS subscales (N = 103)*

S. #.	Measures	I	II	III	IV	V	VI	VII	VIII	
PTAS Subscales										
I	Leadership Ability	-								
II	Integrity	.64**	-							
III	Emotional Maturity	.39**	.58**	-						
MMS Subscales										
IV	Extraversion	.47**	.32**	.14	.62**	-				
V	Agreeableness	.58**	.52**	.18*	.84**	.36**	-			
VI	Conscientiousness	.66**	.65**	.25**	.85**	.36**	.74**	-		
VII	Emotional Stability	.21*	.26*	-.03	.65**	.28**	.39**	.42**	-	
VIII	Openness to experience	.52**	.47**	.27**	.71**	.34**	.56**	.58**	.22**	-

\* $p < .05$ , \*\* $p < .01$ .

Table 10 shows that sub scales of PTAS except emotional maturity are positively correlated with Mini Markers subscales.

The result of present study provided support for the convergent validity of Personality Traits Assessment Scale (PTAS). It was hypothesized that the two measures i.e., a newly developed Personality Traits Assessment Scale and Mini Markers by (Saucier, 1994) would be positively correlated. As result mentioned in Table 10 shows that correlation of the PTAS subscales with MMS subscales was computed. Significant positive correlation coefficients were obtained between the PTAS sub scales and MMS ranging from  $r = .66$  to  $.52$  ( $p < .01$ ) and  $.21$  ( $p < .05$ ) respectively. Table also indicates that two subscales of PTAS i.e., Leadership Ability and Integrity are positively correlated with Mini Markers subscales. However, one subscale emotional maturity is negatively correlated with Mini Markers subscale emotional stability because high scores on subscale emotional maturity of PTAS indicates emotionally mature person while high score on subscale emotional stability/neuroticism of Mini Markers reveals that person is emotionally instable and have some neurotic tendencies. Table also shows positive but nonsignificant correlation of emotional maturity with extraversion. Findings reveal that newly developed Personality Trait Assessment Scale (PTAS) shows satisfactory convergent validity with the Big Five Mini Markers (Saucier, 1994).

*Discriminant Validity of the Personality Traits Assessment Scale (PTAS).* In order to establish discriminant validity of PTAS another study was carried out. For the purpose a test which was not related with the construct i.e., Procrastination Scale was selected. Relationship of PTAS was assessed with Procrastination Scale. Non-significant relationship was expected between the two variables.



**Table 11**

*Correlation coefficients of subscales of Personality Traits Assessment Scale (PTAS) with Procrastination Scale (N = 103)*

Sub scales of PTAS	Procrastination Scale
Leadership Ability	.04
Integrity	-.04
Emotional Maturity	-.05

In this research discriminant validity of the Personality Traits Assessment Scale (PTAS) was established by evaluating its relation with the Procrastination Scale. The result also provided evidence for the discriminant validity of the PTAS. It was hypothesized that the two measures i.e., PTAS and Procrastination Scale have no relationship. The correlation of the PTAS sub scales was computed with Procrastination Scale. Table 11 indicates that Leadership Ability has positive but nonsignificant relationship with Procrastination Scale. Other two sub scales i.e., Integrity and Emotional Maturity have negative correlation ranging from  $r = -.04$  and  $-.05$  which explain inverse relation. The findings regarding overall analysis suggest that newly developed Personality Trait Assessment Scale (PTAS) shows good discriminant validity with the Procrastination Scale (Fatimah, 2001).

**Table 12**

*Correlation coefficients of Mini Markers (MMS) subscales with Procrastination Scale (N = 103)*

Subscales of MMS	No of items	Procrastination Scale
Extraversion	8	.13
Agreeableness	8	.05
Conscientiousness	8	.01
Emotional Stability	8	.11
Openness to experience	8	.03

To see the relationship between two measures correlation coefficient of MMS subscales were computed with Procrastination Scale. Table12 indicates that all correlations are in positive direction but their values are near low indicating low relationship. It shows that a person who scores high on MMS will score low on Procrastination Scale, as these measures are explaining two different constructs. This trend established discriminant validity of PTAS.

The main purpose of the study was to explore similarities/differences if any, in personality traits of executives working in seven CSS occupational groups (cadre) and Ex-cadre selected for this study.

**Occupational Groups (cadre).** Seven selected occupational groups are CTG, CEG, DMG, FSP, ITG, PAAS, and PSP. To explore the differences between seven CSS occupational groups of executives mean, standard deviation and one way analysis of variance (*ANOVA*) was carried out.

**Table 13***Comparison between occupational groups (cadre) on subscales of Personality Traits Assessment Scale (PTAS) (N = 103)*

Measures	CTG (n = 10)		CEG (n = 19)		DMG (n = 14)		FSP (n = 15)		ITG (n = 20)		PAAS (n = 15)		PSP (n = 10)		F	p	$\eta^2$	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD				
PTAS																		
Leadership Ability	91.90	33.83	103.00	12.61	102.86	7.89	107.73	9.40	102.40	6.45	95.87	17.97	104.15	8.70	1.628	.148	.092	
Integrity	57.50	20.38	59.31	10.43	61.21	9.31	64.67	4.22	63.60	6.11	57.73	8.89	63.20	3.39	1.281	.273	.074	
Emotional	25.00	6.93	23.89	3.53	25.71	2.89	24.87	2.32	26.05	4.06	22.80	4.06	25.10	3.41	1.254	.286	.073	
Maturity																		

*df = 101*

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

**Table 14***Comparison between occupational groups (cadre) on subscales of Mini Markers (MMS) (N = 103)*

Measures	CTG (n = 10)		CEG (n = 19)		DMG (n = 14)		FSP (n = 15)		ITG (n = 20)		PAAS (n = 15)		PSP (n = 10)		F	p	$\eta^2$	
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD				
MMS																		
Extraversion	26.00	4.24	28.05	5.29	29.07	4.21	30.33	3.53	28.50	3.54	26.66	4.80	28.80	3.45	1.539	.174	.088	
Agreeableness	30.40	7.07	35.31	5.49	36.28	2.70	34.13	6.81	34.30	4.18	32.13	5.43	34.35	3.62	1.790	.109	.101	
Conscientiousness	31.80	9.00	25.84	4.60	30.28	4.44	28.80	5.46	28.55	5.50	32.26	2.93	35.20	2.25	1.177	.325	.069	
Emotional	28.80	4.58	25.84	4.60	30.28	4.44	28.80	5.46	28.55	5.50	27.60	4.70	28.80	5.46	1.305	.263	.075	
Stability																		
Openness to	29.00	4.37	31.31	3.98	31.00	3.50	30.40	4.77	29.90	3.38	28.60	4.27	29.50	3.50	.956	.459	.056	
Experience																		

*df* = 101 Note. CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG =

Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

**Table 15***Comparison between occupational groups (cadre) on Procrastination Scale (N = 103)*

Measure	CTG		CEG		DMG		FSP		ITG		PAAS		PSP		F	p	$\eta^2$
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
Procrastination	23.30	7.24	22.79	4.31	20.64	3.29	20.47	5.50	22.00	5.40	19.40	2.80	18.60	2.37	1.789	.109	.101

Scale

*df = 101*

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

Result given in Table 13 indicates that there is nonsignificant differences between seven CSS occupational groups (cadre) of executives with reference to personality traits on newly developed measure i.e., Personality Traits Assessment Scale (PTAS).

Table 14 and 15 also exhibits nonsignificant differences between seven CSS occupational groups (cadre) of executives with reference to personality traits on Mini Markers and Procrastination Scale. Consistency in findings confirm that executives working in seven selected CSS occupational groups (cadre) have similar personality traits and it also shows that these personality traits are common for working at responsible positions.

*Occupation (Cadre & Ex-cadre).* To find out the similarities/differences in personality traits of executives working in CSS occupational groups (cadre) and ex-cadre posts sample was divided into two groups i.e., CSS occupational groups which include, CTG, CEG, DMG, FSP, ITG, PAAS, and PSP. Ex-cadre jobs include Medical, Defence and Education profession.

**Table 16**

*Occupation wise differences (cadre & ex-cadre) on subscales of personality Traits Assessment Scale (PTAS) (N = 143)*

Measures	CSS Group (Cadre) (n = 103)		Ex-cadre Groups (n = 40)		t	p	Cohen's d
	M	SD	M	SD			
PTAS							
Leadership Ability	101.72	15.26	100.77	9.22	.366	.715	.043
Integrity	61.97	6.01	61.15	6.76	.495	.621	.128
Emotional Maturity	25.37	3.24	24.77	4.02	.854	.394	.164

*df = 141*

Result in Table 16 indicates that there are nonsignificant differences in personality traits of executives of CSS occupational groups (cadre) and executives of ex-cadre group. It means that executives working at senior position either in cadre or ex-cadre groups have common personality traits.

**Table 17**

*Occupation wise differences (cadre & ex-cadre) on subscales of Mini Markers (MMS) (N = 143)*

Measures	CSS Group (Cadre) (n = 103)		Ex-cadre Group (n = 40)		t	p	Cohen's d
	M	SD	M	SD			
MMS							
Extraversion	28.80	4.27	28.28	4.33	.645	.520	.121
Agreeableness	34.04	5.33	34.45	3.73	.436	.663	.089
Conscientiousness	34.13	5.05	33.35	4.75	.849	.398	.159
Emotional Stability	28.65	5.49	28.16	4.88	.514	.608	.094
Openness to Experience	30.07	3.98	28.92	3.82	1.559	.121	.295

*df = 141*

Table 17 also reveals that there are nonsignificant differences in personality traits of executives between two groups i.e., cadre and ex-cadre.

**Table 18**

*Occupation Wise differences (cadre & ex-cadre) on Procrastination Scale (N = 143)*

Measure	CSS Group (Cadre)		Ex-cadre Group		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>(n = 103)</i>		<i>(n = 40)</i>				
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Procrastination Scale	21.15	4.77	20.12	3.86	1.219	.225	.237

*df=141*

Table 18 exhibits that differences are nonsignificant between cadre i.e. CSS occupational groups and ex-cadre i.e., medical, defence and education on Procrastination Scale. To see the consistency in results same analysis were carried out on MMS and Procrastination Scale. Table 17 and 18 indicate the same trend and nonsignificant findings reveal that executive of both groups have more or less common personality traits.



**Table 19**

*Differences between three ex-cadre groups on subscales of Personality Traits Assessment Scale (PTAS) (N =40)*

Measures	Medical (n =10 )		Defence (n = 20)		Education (n = 10)		F	p	$\eta^2$
	M	SD	M	SD	M	SD			
PTAS									
Leadership Ability	101.30	12.40	98.60	8.46	104.60	6.04	1.469	.244	.074
Integrity	58.90	10.17	64.10	3.14	64.80	3.19	2.618	.086	.124
Emotional Maturity	24.00	2.75	25.65	3.28	26.20	3.49	1.318	.280	.067

*df=38*

To see the similarities/differences if any, in personality traits of ex-cadre executives *ANOVA* was computed. Table 19 shows nonsignificant differences between three professions i.e., Medical, Defence, and Education on all three subscales of Personality Traits Assessment Scale (PTAS).

**Table 20**

*Differences between three ex-cadre groups on subscales of Mini Markers (MMS) (N =40)*

Measure	Medical (n =10 )		Defence (n =20 )		Education (n = 10)		F	p	$\eta^2$
	M	SD	M	SD	M	SD			
	MMS								
Extraversion	29.80	4.76	27.45	4.06	30.50	3.63	2.195	.126	.106
Agreeableness	35.10	3.38	33.55	4.10	35.60	3.13	1.220	.307	.062
Conscientiousness	32.10	7.12	32.65	3.48	36.00	3.30	2.259	.119	.109
Emotional stability	25.20	7.15	29.60	3.95	30.20	5.37	2.933	.066	.137
Openness to	29.10	3.41	28.75	4.43	29.11	3.18	.040	.961	.002
Experience									
<i>df=38</i>									

Table 20 reveals nonsignificant differences between these three ex-cadre groups. It means that Executives working in Medical, Defence, and Education professions have common personality traits.

**Table 21**

*Differences between three ex-cadre groups on Procrastination Scale (N =40)*

Measure	Medical (n =10 )		Defence (n =20 )		Education (n = 10)		F	p	$\eta^2$
	M	SD	M	SD	M	SD			
Procrastination Scale	19.50	4.17	19.40	3.07	22.20	4.59	2.026	.146	.099

*df= 38*

In order to see with in ex-cadre group's similarities/differences on procrastination Scale analysis was carried out. Table 21 indicates nonsignificant differences on personality traits between three professional groups of ex-cadre, i.e., Medical, Defence, and Education.

*Demographic Variables and Personality Traits.* To find out the differences in personality traits of executives, if any, regarding demographic variables i.e., gender, age, education, length of experience and occupation *t*- test and one way analysis of variance were carried out.

*Gender.* To see the difference, if any, in personality traits of men and women executives, data was divided into two groups. Sample shows that number of women is quite less as compared to men. The reason is that percentage of female candidate who appear in CSS is less, for example in competitive examination 2009 (as mentioned in press release issued by FPSC on 18<sup>th</sup> June, 2010) total number of appeared candidates were 63 %; written qualified were 15.85% and finally qualified were 15.68%; out of which 76.31% were male and 23.69 % were female. Allocation depends on number of seats available.

**Table 22**

*Gender wise differences on subscales of Personality Traits Assessment Scale (PTAS)*  
(*N* = 103)

Measures	Men ( <i>n</i> = 81)		Women ( <i>n</i> = 22)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
PTAS							
Leadership Ability	101.74	15.36	101.64	15.23	.028	.977	.006
Integrity	61.30	9.56	60.64	10.67	.280	.780	.065
Emotional Maturity	24.96	3.97	24.04	4.20	.949	.345	.469

*df*=101

Table 22 shows nonsignificant gender differences in personality traits of executives.

**Table 23**

*Gender wise differences on subscales of Mini Markers (MMS) (N = 103)*

Measures	Men ( <i>n</i> = 81)		Women ( <i>n</i> = 22)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
MMS							
Extraversion	28.15	4.31	28.77	4.46	.598	.551	.141
Agreeableness	33.86	5.06	34.72	6.29	.672	.503	.151
Conscientiousness	33.88	5.18	35.09	4.53	.999	.320	.248
Emotional Stability	28.19	4.73	28.04	5.49	.129	.898	.029
Openness to Experience	29.88	3.99	30.77	3.91	.937	.351	.225

*df*=101

Table 23 also reveals that differences in personality traits with reference to gender are nonsignificant between men and women executives.

**Table 24***Gender-wise differences on Procrastination Scale (N = 103)*

Measure	Men (n = 81)		Women (n = 22)		t	p	Cohen's d
	M	SD	M	SD			
Procrastination Scale	20.83	4.52	21.04	4.76	-.209	.835	.045

*df=101*

Table 24 also reveals non-significant differences between men and women with reference to gender on procrastination Scale. Result mentioned in Table 22, 23, and 24 show consistent trends which suggest that executives working at senior positions have common personality traits irrespective of gender.

*Age:* To determine the effect of age on personality traits the sample was divided into three groups i.e., 22 to 30 years, 31 to 45 and 46 to 59 years keeping in view the positions of executives i.e., younger, middle and senior executives. In order to find out the differences between three groups ANOVA was applied.

**Table 25***Age wise differences on subscales of Personality Traits Assessment Scale (N = 103)*

Measures	Age in Years						F	p	$\eta^2$
	22-30 (n = 69)		31-45 (n = 27)		46-59 (n = 7)				
	M	SD	M	SD	M	SD			
PTAS									
Leadership Ability	104.01	11.39	95.48	22.00	103.14	12.20	3.200	.045	.060
Integrity	62.45	7.56	58.48	13.25	58.71	12.34	1.870	.159	.036
Emotional Maturity	24.85	3.72	24.04	4.97	26.71	1.98	1.290	.280	.025

*df=101*

Table 25 reveals that there is nonsignificant difference on two sub scales of PTAS i.e., integrity and emotional Maturity between three age groups, however difference between three age groups is significant at  $p < .04$  level on Leadership Ability. Younger age group of executives has highest mean on leadership Ability and next is older age group. It indicates that younger executives possess more leadership qualities comparatively to other groups.

**Table 26**

*Age wise differences on subscales of Mini Markers (MMS) (N = 103)*

Measures	Age in Years						F	p	$\eta^2$
	22-30		31-45		46-59				
	M	SD	M	SD	M	SD			
MMS									
Extraversion	28.46	4.26	27.81	4.64	28.28	4.15	.215	.807	.034
Agreeableness	34.18	4.82	33.37	6.89	35.28	2.92	.426	.654	.008
Conscientiousness	34.78	3.88	32.77	7.33	33.00	3.91	1.741	.181	.034
Emotional stability	28.11	5.08	28.44	4.42	27.57	5.12	.098	.907	.002
Openness to Experience	30.21	3.55	29.85	5.01	29.42	3.90	.176	.839	.004

*df = 101*

Table 26 also indicates nonsignificant differences in personality traits between three age groups on Mini Markers. All executives have similar personality traits irrespective of their age.

**Table 27***Age wise differences on Procrastination Scale (N = 103)*

Measure	Age in Years						F	p	$\eta^2$
	22-30		31-45		46-59				
	M	SD	M	SD	M	SD			
Procrastination Scale	20.60	4.49	21.63	4.47	24.71	7.20	2.617	.078	.050

*df= 101*

In order to see the effect of age with reference to procrastination *ANOVA* was computed .Table 27 shows nonsignificant differences on Procrastination Scale with reference to age.

*Education:* The effect of education on personality traits was also examined in present study. Total sample was divided into two groups on the basis of their education. One group of educational level is graduation which is a minimum requirement to apply for civil services competitive examination. Other group is of post graduation level.

**Table 28***Education wise differences on subscales of Personality Traits Assessment Scale (PTAS) (N = 103)*

Measures	Graduates		Post Graduates		t	p	Cohen's d
	M	SD	M	SD			
PTAS							
Leadership Ability	102.28	17.59	101.50	14.41	.229	.819	.048
Integrity	62.07	9.92	60.81	9.73	.580	.563	.128
Emotional Maturity	24.50	4.62	24.86	3.80	.410	.683	.085

*df=101*

To see the effect of education with reference to personality traits analysis was carried out. Result in Table 28 reveals nonsignificant differences in personality traits of executives between two groups on the basis of education.

**Table 29**

*Education wise differences on subscales of Mini Markers (MMS) (N = 103)*

Measures	Graduates (n = 28)		Post Graduates (n = 75)		T	p	Cohen's d
	M	SD	M	SD			
MMS							
Extraversion	29.53	3.52	27.81	4.52	1.817	.072	.419
Agreeableness	33.53	4.58	34.24	5.59	.595	.553	.139
Conscientiousness	34.28	4.76	34.08	5.18	.183	.855	.040
Emotional stability	27.42	4.45	28.44	5.03	.935	.352	.215
Openness to Experience	29.82	3.60	30.16	4.12	.383	.703	.088

*df=101*

Table 29 also demonstrates nonsignificant differences in personality traits of executives working in seven occupational groups on the basis of education.



**Table 30***Education wise differences on Procrastination Scale (N = 103)*

Measure	Graduates (n =28)		Post Graduates (n =75)		t	p	Cohen's d
	M	SD	M	SD			
Procrastination Scale	20.83	5.37	20.88	4.20	-.063	.950	.013

*df= 101*

Table 30 also shows non-significant differences with reference to education on Procrastination Scale. Consistency in results reveals that education does not effect on personality traits.

*Job Experience.* To see the effect of job experience sample was divided into three groups on the basis of experience i.e., up to 5 years, 6years to 15 years and 16 years to 36 years. The number of executives having 16 years and above experience is less because they are at senior positions and due to more responsibilities and commitments their availability was difficult. To see the effect of job experience on personality traits one way analysis of variance (ANOVA) was computed.

**Table 31**

*Job Experience wise differences on sub scales of Personality Traits Assessment Scale (PTAS) (N = 103)*

Measures	Experience in Years						F	p	$\eta^2$
	Up to 5		6-15		16-36				
	(n = 68)		(n = 27)		(n = 8)				
	M	SD	M	SD	M	SD			
PTAS									
Leadership Ability	100.62	13.05	97.29	21.60	103.60	11.99	1.696	.189	.033
Integrity	62.41	7.78	58.18	13.82	60.50	6.92	1.863	.161	.036
Emotional Maturity	24.95	3.96	23.85	4.47	26.25	2.18	1.327	.270	.026

*df* = 101

Results mentioned in Table 31 indicate nonsignificant differences between three groups on the basis of experience. Findings indicate that all executives shared common personality traits.

**Table 32**

*Job Experience wise differences on subscales of Mini Markers (MMS) (N = 103)*

Measures	Experience in Years						F	p	$\eta^2$
	Up to 5		6-15		16-36				
	(n = 68)		(n = 27)		(n = 8)				
	M	SD	M	SD	M	SD			
MMS									
Extraversion	28.38	4.34	27.37	3.37	27.37	3.37	.191	.826	.004
Agreeableness	33.88	4.87	34.66	5.56	33.37	8.27	.275	.760	.005
Conscientiousness	34.51	4.07	34.40	5.62	30.00	8.61	3.023	.063	.057
Emotional stability	28.20	5.07	26.37	5.09	28.59	4.37	.639	.530	.013
Openness to Experience	30.02	3.56	30.62	4.56	28.50	5.20	.893	.413	.018

*df* = 101

Table 32 also shows nonsignificant differences between three groups of executives with reference to job experience.

**Table 33**

*Job Experience wise differences on Procrastination Scale (N = 103)*

Measure	Experience in Years						F	p	$\eta^2$
	Up to 5 (n = 68)		6-15 (n = 27)		16-36 (n = 8)				
	M	SD	M	SD	M	SD			
Procrastination Scale	20.69	4.29	21.52	4.55	23.87	7.08	1.726	.183	.033

*df = 101*

Table 33 also indicates nonsignificant differences between three groups with reference to experience.

**Discussion:** Part I of the study was related to indigenous development of Personality Traits Assessment Scale (PTAS). Part II, phase-I of the study was carried out to determine Psychometric properties of the PTAS developed in Part I and for pre testing the instrument as all predictor variables can be assessed in terms of their quality or goodness. In Psychology goodness of measuring devices can be judged by two psychometric criteria: reliability and validity. The Personality Traits Assessment Scale (PTAS) was developed to explore similarities/ differences, if any, in personality traits of executives working in seven selected CSS occupational (cadre) and ex-cadre groups. The estimates of alpha coefficients and split half are quite satisfactory and determine the internal consistency of the scale.

To establish discriminant validity Urdu version of procrastination scale (Fatimah, 2001) was used. Procrastination has been defined as the act of needlessly delaying a task until some point of discomfort (Solomont & Rothblum, 1984) a form of self-defeating behavior that involves a self destructive tendency (Twenge, Catanese, & Baumeister, 2002) Procrastination has been shown to be related to personality traits, such as attitudes learning (Midgley, Arunkumar, & Urden, 1996) attribution styles (Brownlow & Reasinger, 2000), anxiety level (HayCock, Mecathy, & Skay, 1998) self-efficacy (Wolters, 2003), and Self-esteem (Beck, Koons, & Milgrim, 2000). In this research discriminant validity of new measure i.e., Personality Trait Assessment Scale was established by evaluating its relation with the Procrastination Scale. It was expected that these two measures have less or low relationship. As expected result show (see Table-11) almost low relationship between PTAS and Procrastination Scale. Correlation coefficient of PTAS subscales i.e., Leadership Ability, Integrity and Emotional Stability with Procrastination Scale indicate that Leadership Ability has positive but nonsignificant relationship with Procrastination Scale. Other two sub scales, i.e., Integrity and Emotional Maturity have low negative correlation which explains inverse relation. Correlation between subscales of Mini Markers was also computed with Procrastination Scale (see Table-12). Findings suggest that all correlations are in positive direction but their values are very low. Considering the findings regarding overall analysis suggest we can say that newly developed Personality Assessment Scale (PTAS) demonstrated good discriminant validity with Procrastination Scale (Fatimah, 2001)

Main purpose of present study was to explore similarities/differences in personality traits of executive between seven occupational groups (cadre) as well as with ex-cadre groups. It was also planned to investigate the relationship between

personality traits and demographic variables. To explore the similarities /differences between different groups Analysis of Variance (ANOVA) and *t* test were used.

Result (see Tables 13-15) demonstrated nonsignificant differences between seven occupational groups on all three measures i.e., Personality Traits Assessment Scale (PTAS), Mini Markers (MMS) and Procrastination Scale. One of the reasons of nonsignificant differences between seven occupational groups might be that similar nature of selection process; only those candidates are selected who display better performance on written and show inclination and competitive spirits.

Occupation wise differences i.e., between cadre & ex-cadre were examined on PTAS, MMS and Procrastination Scale (see Table 16-18) and there were nonsignificant differences. Findings of previous research study also revealed nonsignificant differences on personality traits. Satterwhile, Fleener, Braddy, Feldman, and Hoapes (2009) compared the homogeneity of a set of personality characteristics from eight organizations in eight occupations. The result indicates that homogeneity with in occupations was higher than that found in organizations. Differences between three ex-cadre groups were also studied on PTAS, MMS, and Procrastination Scale (see Tables 19-21). Results reveal differences between medical, defence and education profession are nonsignificant on all three measures showing similar personality traits in these professions. Highest mean scores are obtained on PTAS and MMS by educationists compared to other two groups. Gruickshank, Jenkins, and Metcalf (2003) reported that effective teachers are enthusiastic, have warmth and possesses a sense of humor (see also Malikow, 2006).

The study also aimed to examine the differences in personality traits with reference to demographic variables i.e., gender, age, education and job experience. The *t* values demonstrating nonsignificant gender differences with reference to

personality traits (see Table-22) on PTAS as well as MMS (see Table-23) and Procrastination Scale (see Table-24). These nonsignificant gender differences might be explained by the fact that at executive level women have similar personality traits. Costa, Terracciano, and McCrae (2001) found that gender differences are stronger in economically advanced countries as compared to economically less advanced countries with more traditional gender roles. Gender differences are small relative to individual variation within gender.

The result of the current study also reveals nonsignificant differences with reference to age on personality traits (see Table-25) on all subscales of PTAS, MMS (see Table-26) and Procrastination Scale (see Table-27). Findings of study by McCrae and Costa (1990) support the results that people do not change much as a result of growing older. After age 30 personality traits do not change much. As personality traits refer to enduring patterns of thought, emotion and behaviour that are not likely to change over time and explain behaviour across different situations (Costa & McCrae 1989; Funder, 2001).

Relationship between personality traits and education was also explored. To see the effect of education on personality traits data was divided into two groups i.e., graduates ( $n = 28$ ) and post graduates ( $n = 75$ ). Graduation with second class is minimum requirement to appear in CSS competitive examination but most of the candidates appear in examination after doing post graduation. Result (see Table-28, 29, &30) revealed nonsignificant differences on all subscales of PTAS, MMS as well as on Procrastination Scale. Study (Tuckman, 1991) showed nonsignificant relationship between procrastination and level of education. Findings of the present study indicate that executives having graduate degree and post graduate degree have similarities with reference to personality traits. Effect of job experience on personality

traits of executives was also examined. For this purpose sample was divided into three groups. Results (see Table 31, 32 & 33) indicate nonsignificant differences between three groups on the basis of experience on all three measures.

All the findings from reliability analysis, correlation, *t*-test, One Way Analysis of Variance (ANOVA) demonstrates that newly developed measure which was initially evolved for exploratory purposes keeping in view the expected cultural biases in other scales. Personality Traits Assessment Scale (PTAS) is a reliable and valid measure to assess personality traits as scale has shown high alpha coefficient and is significantly correlated with another measure of Big Five Mini Marker Set (Saucier, 1994) indicating good convergent and discriminant validity. Personality Traits Assessment Scale (PTAS) has positive but nonsignificant relationship with Procrastination Scale (Fatimah, 2001). While its two subscales Integrity and Emotional Maturity are negatively correlated with Procrastination Scale. That establishes its discriminant validity. The demographic analysis were also carried out which revealed that these variables can further be examined in main study to determine the effect of these variables on personality traits.

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## **PHASE II: MAIN STUDY**



## MAIN STUDY

This part is based on main study. It was also planned to examine the similarities and differences between and within CSS occupational groups and ex-cadre groups with reference to personality traits on different demographic variables. It was carried out to provide additional information on the convergent validity of PTAS. For this purpose other construct i.e., Managerial Potential Scale (MP) of CPI (Gough, 1994) was used.

The main study was aimed to achieve the following objectives.

### Objectives of the Research

1. To explore the differences in personality traits of executives of seven CSS occupational (Cadre) groups.
2. To see if the executives working in CSS occupational (Cadre) groups are different from ex-cadre executives in terms of personality traits.
3. To determine the psychometric properties of the newly developed Personality Traits Assessment Scale on independent sample.
4. To find out the differences in personality traits with reference to demographic variables such as gender, age, education, and experience.
5. To find the differences in personality traits of executives (cadre) with training (Who have completed common and specialized training) and without training (Fresh entrance in service).
6. To examine the differences in personality traits within ex-cadre groups.

## Sample

Sample consisted of 771 participants, men ( $n = 598$ ) and women ( $n = 173$ ) age ranging from 22 to 59 years ( $M = 32.37$ ;  $SD = 9.04$ ); education level, graduates ( $n = 297$ ) and post graduates ( $n = 474$ ). Further distribution of sample is as follows, Total sample is based on three categories, first is executives of Civil Services ( $n = 465$ ) having minimum experience one year and maximum 36 years of seven selected occupational groups i.e., CTG ( $n = 63$ ), CEG ( $n = 66$ ), DMG ( $n = 66$ ), FSP ( $n = 75$ ), ITG ( $n = 84$ ), PAAS ( $n = 57$ ), and PSP ( $n = 54$ ). Second group is of executives of ex-cadre posts ( $n = 215$ ) which include Medical officers ( $n = 62$ ), Defence Officers ( $n = 71$ ) and Educationists ( $n = 82$ ) with minimum experience one year and maximum 29 years. Third group is of allocated candidates who just joined academy for Common Training Program ( $n = 91$ ).

## Instruments

The following instruments were used in this study:

1. A newly developed Personality Traits Assessment Scale (PTAS)
2. Mini Markers (MMS) (Saucier, 1994)
3. Managerial Potential Scale of California Psychological Inventory (CPI) (Gough, 1994) and
4. Demographic Information Sheet

**Personality Traits Assessment Scale (PTAS).** Personality Traits Assessment Scale (Appendix-D) was developed in first phase. It is a 45 items self report measure of personality traits. The scale measures individual differences in personality traits of executives working in different occupations. It is a Likert type 5 point rating scale ranges from very accurate to very inaccurate (very accurate = 5, moderately accurate = 4, uncertain = 3, moderately inaccurate = 2, and very inaccurate=1). The three subscales were labeled as (a) Leadership Ability (25 items) (b) Integrity (13 items) and (c) Emotional Maturity (7 items). In this scale all items are in positive direction. Total score of the 45 items of PTAS can be ranged from 45 to 225. The high score on each dimension indicates that these executives are more effective

**Big Five Mini Markers (MMS).** The second instrument used is the Mini Markers (Saucier, 1994). This scale was introduced to cater the requirements of researchers who are interested to use a simple structured measure of the Big Five Factors. It is an abbreviated version of 100 – adjective markers (Goldberg, 1992). The scale consists of 40 adjectives eight items in each scale and measures the five factors as given in Big Five Factor Model of Goldberg (1992). These five factors are extraversion agreeableness, conscientiousness, emotional stability and intellect/openness these scales include positive and negative adjectives/items. Mini Markers is a 9 point rating scale but for the convenience of respondents Likert type 5 point rating scales has been used ranging from very inaccurate to very accurate. There are no cut off points for the dimensions/subscales that make a person characteristically conscientious or emotionally stable. The score for each item in all the five scales are ranging from 1-5. Items having negative loadings are to be reversed in the scoring process. The sum of scores for each scale is then divided by 8 (total

number of items in each scale) to arrive at the mean response value for items on the given scale. Currently, the most popular model of personality is the Five-Factor Model (FFM; Digman & Inouye, 1986). The FFM asserts that normal human personality can be described using five general dimensions.

The study used two instruments for validation of PTAS. First, the Mini Markers developed by Saucier (1994). The reason for using the 40 items Mini Markers is because both the NEO – PIR developed by Costa and McCrae (1992) containing 240 items and the unipolar adjective Markers developed by Goldberg (1992) consisting of 100 adjectives are too lengthy. Mini Marker uses only eight adjectives to measure each of the five personality factors with reasonable reliability and it can be completed within 5 minutes. Respondents were required to indicate how much they possessed the personality traits described by each adjective.

When time is limited, researchers may be faced with the choice of using an extremely brief measure of the big-five personality dimensions. This reduced set has excellent reliability and validity. Saucier found that Mini Marker factors have acceptable internal consistency ( $\alpha = .78$  to  $\alpha = .86$ ). Saucier (1994); Palmer and Loveland (2004) found support for the validity of the Mini markers as a measure of the FFM. Studies reveals that even a single item measures of personality (SIMP) demonstrated a mean convergence of  $r = 0.61$  with longer scales and also shows an acceptable reliability (Woods, Stephen, Hampson, & Sarah, 2005).

**Managerial Potential Scale (MP) Of CPI (Gough, 1994).** Managerial Potential (MP) (Appendix-J) is a special purpose scale designed for the California Psychological Inventory (CPI) Gough (1994) to assess personality characteristics to be associated with desirable work Performance, and behavior. MP is used to assess interest and talent for managerial pursuits (Gough, 1984). In management leadership is the actual ability to direct or supervise others. Gough used two criteria for selecting items for a Managerial potential scale, performance ratings of military officers and preferential item endorsement by bank managers. California Psychological Inventory (CPI; Gough, 1987) items meeting both these criteria were combined into a 34 items scale. Such scales are often complex and multidimensional, measuring a syndrome of relevant characteristics rather than a unified Psychological construct.

A high score suggests individuals who create a good impression and are confident, fluent, socially effective, emotionally stable, mature, clear-thinking, realistic, optimistic, responsible, capable, well organized, and ambitious; who are goal-oriented and value achievement; who show good initiative and foresight; who are effective leaders able to elicit cooperation from others, get things done, and offer advice; and who value intellectual and cognitive matters.

A low score suggests persons who lack confidence; who are socially maladroit and make mistakes in grammar or word usage; who are emotionally unstable, moody, worrisome, and anxious; who tend to be dissatisfied, rebellious, defensive, immature, apathetic, irresponsible, distractible, and inconstant in the pursuit of long-range goals; who tend to be wedded to routine and are made anxious by change or uncertainty; and who may withdraw in the face of adversity. Managerial Potential (MP) Scale of California Psychological Inventory (CPI) Gough, (1994) has been used in the present

study to assess personality traits related to managerial potential and for validation purpose.

The managerial potential scale (MP) of California Psychological inventory (CPI) (Gough, 1994) was chosen for validation purpose for its widespread use in predicting managerial performance. As executives/officers of these occupational groups have to play a managerial role at their respective positions. Moutafi, Furnham, and Gump (2007) conducted a study on the topic, is managerial level related to personality? Participant completed two personality tests. Revised NEO personality inventory and MBTI and reported their managerial level in their organization. Result showed that conscientiousness and extraversion were positively correlated with managerial level and neuroticism was negatively correlated with managerial level. Managerial Potential scale of CPI has been used in researches in Pakistan and shows satisfactory reliability i.e., .77 (Shujaat, 1992).

**Demographic Information Sheet.** Demographic information was also collected to study the relationship of personality traits with gender, education, age, experience and occupation.

### **Procedure**

To get the data from executives of different occupational group's special permission from all head of the institutions through letters was obtained to collect data. Executives were approached by visiting different training academies, and Ministries which includes National Police Academy Islamabad, Police Foundation Islamabad, Income Tax Academy Lahore, Civil Services Academy Lahore, Audit and Accounts Training Institute Lahore, Central Board of Revenue now Federal Board of

Revenue, Ministry of Commerce and Trade, Ministry of Foreign Affairs, Islamabad National Institute of Public Administration (NIPA) Lahore. All the executives were given consent form to get their agreement along with Personality Traits Assessment Scale (PTAS), Mini Markers (MMS) and Managerial Potential Scale (MP) in a form of booklet with written instructions. Purpose of the study was explained and they were also given verbal directions for better understanding and clarity. All executives had to complete all three personality scales. They were requested PTAS to be completed first and then MMS and Managerial Potential Scale. Confidentiality was also ensured that the results would be used for research purposes only. Due to busy schedule and other appointments they could not complete the questionnaires immediately. Therefore questionnaires were collected later at their convenience.

## Results

The present study intended to explore the differences, if any, in personality traits of civil service executives and its relation with different demographic variables. Different statistical procedures were used to analyze the data. Alpha coefficients were calculated to see the reliability of three instruments used *t-analysis* and one way analysis of variance (ANOVA) were used to find the differences in personality traits with reference to gender, age, education, and experience. Analysis was carried out on same lines as was in Pilot study. In main study Managerial Potential Scale of CPI Gough (1994) was also used to determine convergent validity of PTAS.

**Reliability of the Instruments.** Reliability is one major index of the efficiency of any measurement. The extent, to which one can depend upon a test, is

very much determined by the reliability of the scale. For the determination of reliability of PTAS subscales, alpha coefficient was calculated. On the same line the alpha coefficient for Big Five Mini Marker Set and Managerial Potential scale of CPI was also computed.

**Table 34**

*Alpha reliability coefficient of subscales of Personality Traits Assessment scale (PTAS) (N = 465)*

Measure	No. of items	Alpha Coefficients
Leadership Ability	25	.94
Integrity	13	.92
Emotional Maturity	7	.55

Table 34 represents the alpha reliability coefficients of three subscales of PTAS. The alpha coefficients value for subscales ranges from .55 to .94. The Cronbach's alpha coefficient was applied to estimate the reliability for subscales, Leadership Ability .94, Integrity .92 and for Emotional Maturity .55. The Table indicates that reliability of two subscales i.e., Leadership Ability and Integrity is quite high. Reliability of sub scale Emotional Maturity is .55 which is also satisfactory. It means that items of its sub scales are internally consistent, Moreover alpha values are in acceptable range which provide evidence that PTAS is a reliable measure.



**Table 35**

*Alpha reliability coefficients of subscales of Mini Markers (MMS) and Managerial Potential Scale (MP) (N = 465)*

Measures	No of items	Alpha Coefficients
Extraversion	8	.63
Agreeableness	8	.75
Conscientiousness	8	.80
Emotional Stability	8	.75
Openness To Experience	8	.49
Managerial Potential Scale	34	.90

Table 35 shows that Cronbach's alpha indices of subscales of Mini Markers i.e., Extraversion .63, Agreeableness .75, Conscientiousness .80, Emotional Stability .75, and Openness to Experience is .49. Reliability of all sub scales is satisfactory. Table 24 also shows that the Cronbach alpha coefficient of Managerial Potential Scale is .92 which is quite high.

**Table 36**

*Split half reliability of PTAS, MMS and MP Scale (N = 465)*

Measure	Number of Items		Alpha Coefficients		Split half reliability
	Part-I	Part-II	Part-I	Part-II	
PTAS	22	23	.87	.94	.86
MMS	20	20	.84	.85	.93
MP	17	17	.84	.75	.88

*Note.* PTAS = Personality Traits Assessment Scale, MMS = Mini Marker Set, MP = Managerial Potential Scale

Split half reliability of PTAS, MMS and MP was also calculated. For this purpose each of scale was divided into two halves.. Table 36 shows split half reliability of PTAS .86, MMS .93, and MP .88.

**Validity of the Instruments.** Construct and convergent validity of the PTAS was again determined in main study by using the same procedure as used in pilot testing.

**Table 37**

*Correlation coefficients of Personality Traits Assessment Scale (PTAS) with its subscales (N = 465)*

Subscales of PTAS	No. of items	PTAS
Leadership Ability	25	.95**
Integrity	13	.91**
Emotional Maturity	7	.62**

*Note.* PTAS = Personality Traits Assessment Scale

\*\* $p < .01$

It is observed from Table 37 that there are significant positive correlation coefficients of Personality Trait Assessment Scale (PTAS) with its sub scales. Correlation coefficient of personality Traits Assessment Scale with its sub scales indicate that all three subscales are positively correlated with PTAS which establish its construct validity ( see Table 38 i.e., correlation matrix).

**Table 38***Correlation Matrix between PTAS, MMS subscales and MP Scale of CPI (N = 465)*

S. #.	Measures	I	II	III	IV	V	VI	VII	VIII	IX
<b>PTAS Subscales</b>										
I	Leadership Ability	-								
II	Integrity	.77**	-							
III	Emotional Maturity	.45**	.50**	-						
<b>MMS Subscales</b>										
IV	Extraversion	.40*	.34*	.12*	-					
V	Agreeableness	.41*	.37*	.18*	.91**	-				
VI	Conscientiousness	.46**	.41*	.18*	.92**	.66**	-			
VII	Emotional Stability	.26*	.23*	-.03	.87**	.65**	.72**	-		
VIII	Openness to experience	.47**	.38*	.17*	.84**	.59**	.76**	.74**	-	
IX	MP	.18*	.16*	.14*	.76**	.56**	.68**	.73**	.69**	-

Note. PTAS = Personality Traits Assessment Scale, MMS= Mini Markers, MP=Managerial Potential Scale.

\* $p < .05$ , \*\* $p < .01$

Table 38 reveals inter scale correlations between PTAS, MMS and MP Scale. Inter scale correlations of three measures show positive relationship with each other except one sub scale of PTAS i.e., emotional maturity which shows very low negative relation with sub scale emotional stability of MMS. The reason that high scores on sub scale emotional maturity of PTAS indicates emotionally mature person while high score on sub scale of emotional stability/neuroticism of Mini Markers reveals opposite trait i.e., that person is emotionally instable and have some neurotic tendencies.

To see relationship between personality traits and other variables different analysis were carried out.

*Occupational Groups (cadre).* The main objective of the study was to explore similarities/differences, if any, of Civil Services. in personality traits of executives working in seven most preferred occupational groups of Civil Service. To study these differences, significance of mean, one way analysis of variance (ANOVA) was computed on these scales and various demographic variables.

Table 39

Comparison between occupational groups (cadre) on sub scales of Personality Traits Assessment Scale (PTAS) (N = 465)

Measures	CTG (n = 63)		CEG (n = 66)		DMG (n = 66)		FSP (n = 75)		ITG (n = 84)		PAAS (n = 57)		PSP (n = 54)		F	p	$\eta^2$
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
PTAS																	
Leadership Ability	101.41	21.87	103.26	22.94	102.54	10.25	105.79	8.67	102.10	9.33	100.74	12.36	101.17	12.81	1.216	.297	.016
Integrity	61.87	12.63	61.86	8.15	61.82	7.47	63.55	5.98	62.19	5.83	61.75	6.55	61.59	8.36	.495	.812	.006
Emotional Maturity	24.75	4.64	24.71	3.13	25.07	3.24	25.36	3.15	25.31	3.76	24.79	3.86	24.78	3.43	.417	.868	.005

$df = 463$

Note. CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

**Table 40**

*Comparison between occupational groups (cadre) on subscales of Mini Markers (MMS) and Managerial Potential Scale (MP) (N = 465)*

Measures	CTG (n = 63)		CEG (n = 66)		DMG (n = 66)		FSP (n = 75)		ITG (n = 84)		PAAS (n = 57)		PSP (n = 54)		F	p	$\eta^2$
	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD	M	SD			
MMS																	
Extraversion	28.46	5.30	28.89	5.56	28.69	4.73	29.42	4.84	28.39	4.19	27.64	5.20	29.42	4.84	.758	.603	.010
Agreeableness	32.22	6.43	32.03	5.70	32.04	6.57	32.53	6.04	32.84	5.45	31.47	5.77	31.77	5.56	.408	.874	.005
Conscientiousness	32.50	7.22	32.36	6.01	32.13	5.97	32.85	5.95	32.09	5.65	31.78	5.97	32.55	5.66	.222	.970	.003
Emotional Stability	29.52	6.56	28.71	6.19	28.53	6.37	28.40	5.88	27.84	5.58	27.26	6.17	28.31	5.95	.838	.541	.011
Openness to Experience	29.61	5.24	29.57	4.45	29.42	4.46	29.17	4.32	29.84	4.19	28.63	3.73	28.92	4.27	.604	.727	.008
MP	19.12	6.48	16.72	7.57	18.75	7.23	18.85	7.54	16.94	7.50	17.32	7.86	19.46	7.98	1.527	.168	.020

*df = 463*

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

Table 39 displays between group and within group differences of seven occupational groups. One way *ANOVA* was computed to investigate whether there was an overall personality traits similarities/difference among seven occupational groups of civil services. Results indicate that statistically nonsignificant differences exist on all sub scales of PTAS.

Table 40 reveals that there is nonsignificant difference between seven occupational groups of civil services on sub scales of MMS. Table also shows nonsignificant differences in personality traits of executives between these seven occupational groups of Civil Services on Managerial Potential Scale. These nonsignificant differences demonstrate that executives working in these occupational groups (cadre) have common personality traits.

*Occupation (Cadre & Ex- Cadre).* To find the differences in personality traits of executives sample was divided into two groups i.e., Cadre and ex-cadre. Civil Servants include CTG, CEG, DMG, FSP, ITG, PAAS and PSP. Ex -cadre Posts include Medical, Defence and Education profession

**Table 41**

*Occupation wise (cadre & ex-cadre) comparison on subscales of Personality Traits Assessment Scale (PTAS) (N = 680)*

Measures	CSS Group (Cadre) (n = 465)		Ex-Cadre Group (n = 215)		t	p	Cohen's d
	M	SD	M	SD			
PTAS							
Leadership Ability	102.91	11.43	102.55	12.88	.343	.732	.029
Integrity	62.14	7.97	62.34	6.33	.316	.752	.027
Emotional Maturity	25.81	4.06	24.99	3.61	2.618	.009	.213

*df = 678*

Table 41 indicates nonsignificant differences between two groups on two subscales of PTAS i.e., Leadership Ability and Integrity. While on Emotional Maturity the difference between two groups is significant at  $p < .01$  level.



**Table 42**

*Occupation wise comparison on subscales of Mini Markers (MMS) and Managerial Potential Scale (N = 680)*

Measures	CSS Group (Cadre) (n = 465)		Ex-cadre Group (n = 215)		t	p	Cohen's d
	M	SD	M	SD			
MMS							
Extraversion	28.61	4.10	28.37	4.45	.61	.524	.056
Agreeableness	32.19	5.92	32.36	4.97	.37	.790	.031
Conscientiousness	32.33	6.04	32.75	5.32	.86	.378	.073
Emotional Stability	28.36	6.08	27.94	5.68	.85	.329	.071
Openness to Experience	29.35	4.39	29.01	4.36	.92	.356	.077
MP	18.11	7.48	17.67	7.15	.72	.470	.060

*df = 678*

To investigate the difference between executives working in Civil Services and ex-cadre executives data was divided into two groups. Table 42 indicates nonsignificant difference between these two groups on all sub scales. Table also reveals nonsignificant differences between civil service executives and ex-cadre executives (Medical, Education, & Defence) on Managerial Potential scale

Between groups differences in ex-cadre group were also studied to investigate whether executives working in Medical, Defence and Education profession differed in personality traits.

**Table 43**

*Differences between three ex-cadre groups on subscales of Personality Traits Assessment Scale (PTAS) (N = 215)*

Measures	Medical (n = 62)		Defence (n = 71)		Education (n-82)		F	p	$\eta^2$
	M	SD	M	SD	M	SD			
Leadership Ability	103.3	13.94	104.4	8.10	101.2	11.71	1.495	.227	.014
Integrity	61.71	8.07	63.28	3.42	62.00	6.75	1.212	.300	.011
Emotional Maturity	25.51	4.40	26.93	3.38	25.06	4.16	4.395	.013	.040

*df=213*

Table 43 indicates nonsignificant differences on two sub scales of PTAS i.e., Leadership Ability and Integrity. However, on Emotional Maturity difference between three groups is significant at  $p < .01$  level of significance.

**Table 44**

*Differences between three ex-cadre groups on subscales of Mini Markers (MMS) and Managerial Potential Scale (MP) (N = 215)*

Measures	Medical (n = 62)		Defence (n = 71)		Education (n = 82)		F	p	$\eta^2$
	M	SD	M	SD	M	SD			
MMS									
Extraversion	28.45	4.30	28.50	4.80	28.14	4.20	.138	.871	.001
Agreeableness	32.39	4.95	31.45	5.08	33.13	4.82	2.208	.112	.020
Conscientiousness	32.42	5.23	33.08	5.10	32.65	5.69	.294	.746	.003
Emotional stability	26.76	5.58	28.97	5.70	27.79	5.62	2.771	.065	.025
Openness to Experience	29.00	4.21	29.01	4.43	29.04	4.46	.001	.999	.000
MP	16.27	6.43	19.11	6.10	17.24	7.70	3.027	.051	.028

*df=213*

Table 44 also reveals nonsignificant differences on sub scales of MMS between three groups. However difference between three groups is significant on Managerial Potential Scale ( $p < .05$ ).

**Training:** Training is mandatory after group allocation for all selected CSS candidates. They have to undergo initially Common Training Program (CTP) and after its completion Special Training Programme (STP). One of the objectives was to see differences in personality traits of executives with training and without training

(Just allocated and joined CTP). To see differences in Personality Traits of executive's *t* test was applied to see significance of mean.

**Table 45**

*Differences with training (executives) and without training (initially joined) on subscales of Personality Traits Assessment Scale (PTAS) (N = 556)*

Measures	With Training ( <i>n</i> = 465)		Without Training ( <i>n</i> = 91)		<i>t</i>	<i>p</i>	Cohen's <i>d</i>
	<i>M</i>	<i>SD</i>	<i>M</i>	<i>SD</i>			
Leadership Ability	102.55	12.88	104.88	12.05	1.590	.112	.187
Integrity	62.14	7.97	63.08	6.33	1.053	.293	.130
Emotional	24.99	3.61	24.87	4.04	.307	.759	.031
Maturity							

*df* = 554

Table 45 indicates nonsignificant differences between two groups i.e., executives working and those who initially joined academy with reference to personality traits on sub scales of PTAS. The reason could be that training is related specifically with enhancement of working knowledge and change in personality traits is not targeted.

**Table 46**

*Difference with training and without training (initially joined) on subscales of Mini Markers (MMS) and Managerial Potential Scale (N = 556)*

Measures	With Training (n = 465)		Without Training (n = 91)		t	p	Cohen's d
	M	SD	M	SD			
<b>MMS</b>							
Extraversion	28.61	4.99	30.70	4.61	3.697	.000	.435
Agreeableness	32.18	5.92	34.80	4.17	.017	.000	.511
Conscientiousness	32.33	6.04	34.36	4.47	3.043	.002	.382
Emotional Stability	28.36	6.08	30.62	4.88	3.340	.001	.409
Openness to Experience	29.35	4.39	30.43	3.60	2.217	.027	.269
MP	24.99	3.20	23.83	3.71	4.04	.659	.334

*df* = 554

Results indicated in Table 46 show that as group without training (initially joined CTP) is high on mean as compared to other group who have training (completed CTP and STP)) Table shows significant differences on all sub scales of MMS. However, difference between two groups on Managerial Potential Scale is nonsignificant.



Table 47 shows nonsignificant differences between men and women executives on sub scales of Personality Traits Assessment Scale (PTAS). It means that at executive level positions men and women are more or less same on personality traits.

**Table 48**

*Gender wise differences on subscales of Mini Markers (MMS) and Managerial Potential Scale (N = 465)*

Measures	Men (n = 370)		Women (n = 95)		t	p	Cohen's d
	M	SD	M	SD			
MMS							
Extraversion	28.48	5.05	29.08	4.77	1.035	.301	.122
Agreeableness	32.08	6.01	32.58	5.54	.738	.461	.086
Conscientiousness	32.21	6.08	32.80	5.88	.844	.399	.098
Emotional Stability	28.29	6.15	28.65	5.81	.515	.607	.060
Openness to Experience	29.21	4.50	29.88	3.92	1.323	.187	.158
MP							
MP	18.17	7.51	17.86	7.39	.366	.714	.041

*df* = 463

Table 48 indicates the comparison between men and women executives on Mini Markers. Table shows non-significant differences on all sub scales of MMS i.e., Extraversion, Conscientiousness, Emotional stability and Openness to Experience. Difference between two groups is also nonsignificant on Managerial Potential Scale.

*Age:* To determine the effect of age on personality traits the sample was divided into three groups i.e., 22 to 30 ( $n = 241$ ) years, 31 to 45 ( $n = 138$ ) and 46 to 59 ( $n = 86$ ) keeping in view the positions of executives i.e., younger, middle and senior executives. Findings of previous research show that people do not change much simply as a result of growing older and personality changes do occur in individuals between college and middle age but after about age 30, stability is clearly the rule. In order to find out the differences in personality Traits between three age groups analysis of variance (ANOVA) was applied.

**Table 49**

*Age wise differences on subscales of Personality Traits Assessment Scale (PTAS) (N = 465)*

Measures	Age in Years						F	p	$\eta^2$
	22-30		31-45		46-59				
	M	SD	M	SD	M	SD			
PTAS									
Leadership Ability	102.47	11.05	99.10	16.06	104.55	10.92	8.085	.000	.034
Integrity	62.30	6.94	60.40	9.61	63.08	7.09	5.062	.007	.021
Emotional Maturity	25.06	3.56	24.61	4.14	25.44	2.70	1.458	.234	.006

*df= 463*

The result in Table 49 indicates that on two subscales of PTAS i.e., Leadership Ability and Integrity, differences between three age groups are significant at  $p < .001$ ,



$p < .000$ , and  $p < .01$  level of significance. Senior executives with age group 46 to 59 shows highest mean and next is younger age group i.e., 22-30.

**Table 50**

*Age wise differences on subscales of Mini Markers (MMS) and Managerial Potential scale (MP) (N = 465)*

Measures	Age in Years						F	p	$\eta^2$
	22-30		31-45		46-59				
	M	SD	M	SD	M	SD			
MMS									
Extraversion	28.68	5.06	28.54	5.33	28.61	4.99	.055	.947	.000
Agreeableness	31.71	5.96	32.01	6.40	33.82	4.64	4.197	.016	.018
Conscientiousness	32.03	6.08	32.19	6.45	33.42	5.12	1.737	.177	.007
Emotional stability	28.26	6.41	28.12	5.89	29.03	5.44	.662	.516	.003
Openness to Experience	29.15	4.29	29.33	4.74	29.96	4.06	1.096	.335	.005
MP	17.52	8.36	18.02	6.84	19.89	5.31	3.22	.041	.014

*df = 463*

Table 50 indicates that there is a nonsignificant difference on all subscales of Mini Markers except one scale of Agreeableness on which difference is significant at  $p < .01$  level of significance. Table also shows significant differences on Managerial potential scale at  $p < .04$  level of significance. .

**Education:** To see the effect of education on Personality traits total sample was divided into two groups on the basis of their education. One group of educational level is graduates ( $n = 152$ ) which is a minimum requirement to apply for civil services competitive examination. Other group is of post graduates ( $n = 313$ ).

**Table 51**

*Education wise differences on subscales of Personality Traits Assessment Scale (PTAS) (N = 465)*

Measures	Graduates ( $n = 152$ )		Post Graduates ( $n = 313$ )		$t$	$p$	Cohen's d
	$M$	$SD$	$M$	$SD$			
PTAS							
Leadership Ability	104.07	14.51	101.81	11.96	1.78	.075	.169
Integrity	63.36	7.97	62.82	7.05	.928	.354	.111
Emotional	24.76	3.83	25.11	3.49	.976	.329	.095
Maturity							

$df = 463$

To determine the difference between two groups  $t$ -analysis was computed. Table 51 indicates that there is nonsignificant difference between two groups of education on all sub scales of Personality Traits Assessment Scale.

**Table 52**

*Education wise differences on subscales of Mini Markers (MMS) and Managerial Potential Scale (MP) (N = 465)*

Measures	Graduates (n = 152)		Post Graduates (n = 313)		t	P	Cohen's d
	M	SD	M	SD			
<b>MMS</b>							
Extraversion	29.31	5.21	28.26	4.86	2.127	.034	.208
Agreeableness	32.75	5.83	31.91	5.95	1.425	.155	.142
Conscientiousness	33.05	6.15	31.98	5.96	1.793	.74	.176
Emotional Stability	29.00	6.13	28.5	6.03	1.586	.113	.082
Openness to Experience	29.61	4.57	29.22	4.30	.886	.376	.087
<b>MP</b>							
MP	18.86	7.32	17.74	7.53	1.518	.130	.150

*df* = 463

Table 52 exhibits the scores of executives on sub scales of Mini Markers with reference to education. The results reveal that there is nonsignificant difference between two groups of education with reference to personality traits on sub scales i.e., Agreeableness, Conscientiousness, Emotional Stability and Openness to Experience. However, difference is significant on Extraversion at  $p < .03$  level of significance. Table also shows that there is nonsignificant difference between two groups of executives on Managerial Potential Scale. It means graduate executives and post graduate executives have similar personality traits.

*Job Experience:* To see the effect of Job experience on personality traits total sample was divided into three groups i.e., up to 5 years, 6years to 15 years and 16 years to 36 years.

**Table 53**

*Job Experience wise differences on subscales of Personality Traits Assessment Scale (PTAS) (N = 465)*

Measures	Experience in Years						F	p	$\eta^2$
	Up to 5		6-15		16-36				
	M	SD	M	SD	M	SD			
PTAS									
Leadership Ability	101.67	11.19	100.40	15.92	104.12	11.31	3.781	.024	.016
Integrity	62.57	5.55	60.30	10.23	63.04	7.15	5.252	.006	.023
Emotional	25.15	3.56	24.49	4.14	25.17	2.88	1.701	.184	.007
Maturity									

*df = 463*

Table 53 shows the significant differences between three groups on two subscales i.e., Leadership Ability and Integrity. The difference is at  $p < .01$ , and  $p < .02$  level of significance. As expected more experienced executives have more leadership qualities and more strong with reference to integrity. The result indicates the effect of experience on personality traits.

**Table 54**

*Job Experience wise difference on subscales of Mini Markers (MMS) and Managerial Potential Scale (N = 465)*

Measures	Experience in Years						F	p	$\eta^2$
	Up to 5		6-15		16-36				
	M	SD	M	SD	M	SD			
MMS									
Extraversion	28.40	5.13	28.87	5.09	28.46	4.60	.396	.673	.002
Agreeableness	31.45	6.09	32.26	6.22	33.63	4.91	4.635	.010	.020
Conscientiousness	31.73	6.13	32.40	6.17	33.36	5.68	2.482	.085	.011
Emotional Stability	27.65	6.32	28.76	6.07	29.08	5.40	2.436	.089	.011
Openness to experience	28.95	4.34	29.31	4.62	30.00	4.20	1.890	.152	.008
MP	17.06	8.52	18.08	6.91	20.02	5.29	5.339	.005	.023

*df = 463*

Table 54 reveals nonsignificant differences on the basis of experience between three groups of executives on sub scales of Mini Markers, except agreeableness. The difference is significant at  $p < .01$  level. Table also indicates significant differences at  $p < .01$  level of significance between three groups on Managerial potential Scale on the basis of experience.

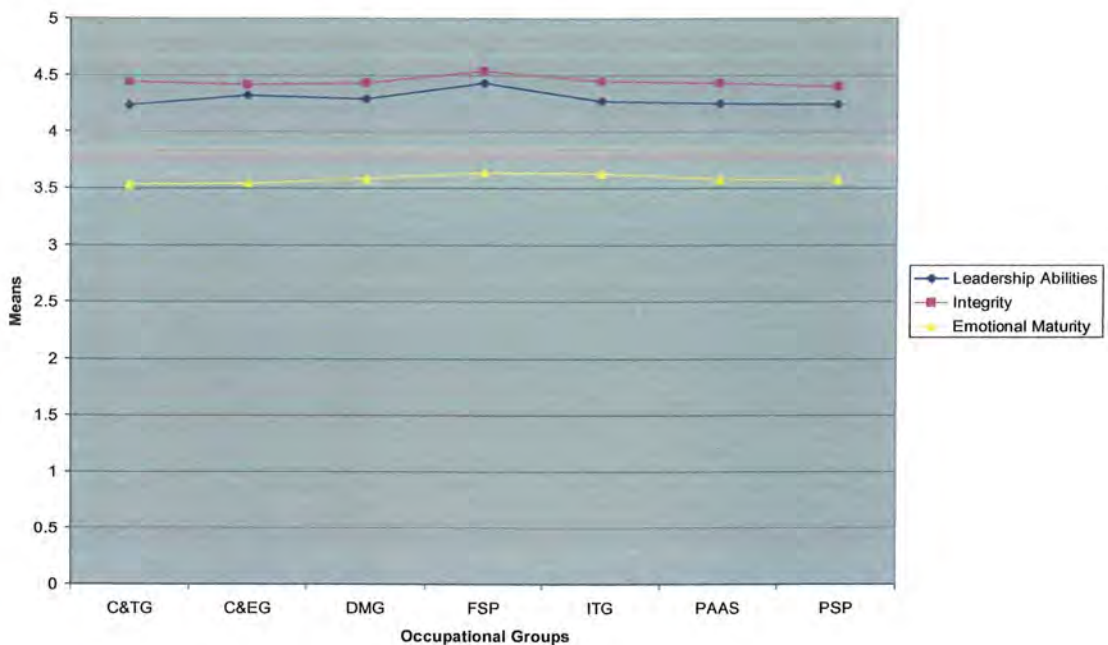
*Comparative Personality Profiles of CSS Occupational Groups (Cadre) on Personality Traits Assessment Scale (PTAS), Mini Markers (MM) and Managerial Potential Scale (MP).* Executives of seven CSS occupational groups i.e., CTG, CEG, DMG, FSP, ITG, PAAS, and PSP were compared on Personality Traits Assessment Scale (PTAS), Mini Markers (MMS) and its sub scales, as well as on Managerial Potential Scale (MP) of CPI, to study the similarities/ differences on each trait. Figures 2-12 presents comparative profiles of these seven groups and Figures 13-15 of ex-cadre groups.

**Table 55**

*Mean Values for Seven CSS occupational groups (Cadre) on subscales of Personality Traits Assessment Scale (PTAS)*

PTAS	No of Items	Score Range	Occupational Groups						
			CTG	CEG	DMG	FSP	ITG	PAAS	PSP
Leadership Abilities	25	25 - 125	4.23	4.32	4.29	4.43	4.27	4.25	4.24
Integrity	13	13 - 65	4.44	4.41	4.43	4.54	4.45	4.43	4.40
Emotional Maturity	7	7-35	3.53	3.54	3.58	3.64	3.63	3.58	3.57

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.



*Figure 2. Mean profile for seven CSS occupational groups (cadre) on subscales of Personality Traits Assessment Scale (PTAS)*

Table 55 and Figure 2 indicate that the differences between these seven groups are not noticeable in the mean scores. These seven groups exhibit similar trends on all subscales of Personality Traits Assessment Scale (PTAS).

**Table 56**

*Mean values for seven CSS occupational groups (cadre) on subscale of PTAS, Leadership Ability*

Sr. no.	Personality Traits	Leadership Ability						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Self Controlled	4.14	4.33	4.27	4.39	4.24	4.09	4.11
2	Emotionally Stable	4.08	4.35	4.12	4.43	4.05	4.09	4.11
3	Able to Appreciate Others	4.40	4.41	4.39	4.63	4.46	4.49	4.44
4	Committed	4.46	4.71	4.65	4.85	4.62	4.72	4.63
5	Frustration Tolerance	4.11	3.95	3.89	3.93	3.77	3.88	3.83
6	Adaptable	4.22	4.24	4.18	4.36	4.19	4.18	4.24
7	Effective Inter Personal Skills	4.33	4.23	4.11	4.37	4.10	4.07	4.20
8	Consistent	4.32	4.38	4.35	4.6	4.48	4.42	4.35
9	Resourceful	3.97	4.02	3.79	4.07	3.94	3.81	4.07
10	Effective Communication	4.11	4.36	4.38	4.40	4.24	4.14	4.30
11	Graceful	4.22	4.26	4.33	4.49	4.26	4.11	4.17
12	Ability to Assess	4.17	4.41	4.33	4.45	4.23	4.32	4.39
13	Willing to Cooperate	4.52	4.55	4.70	4.73	4.54	4.56	4.46
14	Well Groomed	4.32	4.41	4.47	4.48	4.15	4.40	4.26

*Continued...*

Sr no.	Personality Traits	Leadership Ability						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
15	Ability to Accept Failures	4.08	3.98	4.15	4.24	4.04	4.25	4.06
16	Vigilant	4.17	4.26	4.35	4.47	4.26	4.37	4.20
17	Intelligent	4.21	4.35	4.27	4.35	4.25	4.23	4.26
18	Keen Observer	4.22	4.29	4.32	4.41	4.25	4.49	4.20
19	Courteous	4.33	4.42	4.55	4.53	4.55	4.37	4.30
20	Expressive	4.14	4.20	4.17	4.31	4.14	4.02	4.06
21	Good in Crisis Management	4.24	4.39	4.21	4.33	4.31	4.18	4.31
22	Imaginative	4.04	4.08	3.86	4.19	4.20	3.91	4.02
23	Target Oriented	4.35	4.53	4.5	4.56	4.5	4.42	4.37
24	Logical	4.30	4.35	4.39	4.48	4.48	4.33	4.35
25	Competent	4.44	4.52	4.45	4.67	4.52	4.32	4.31

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.



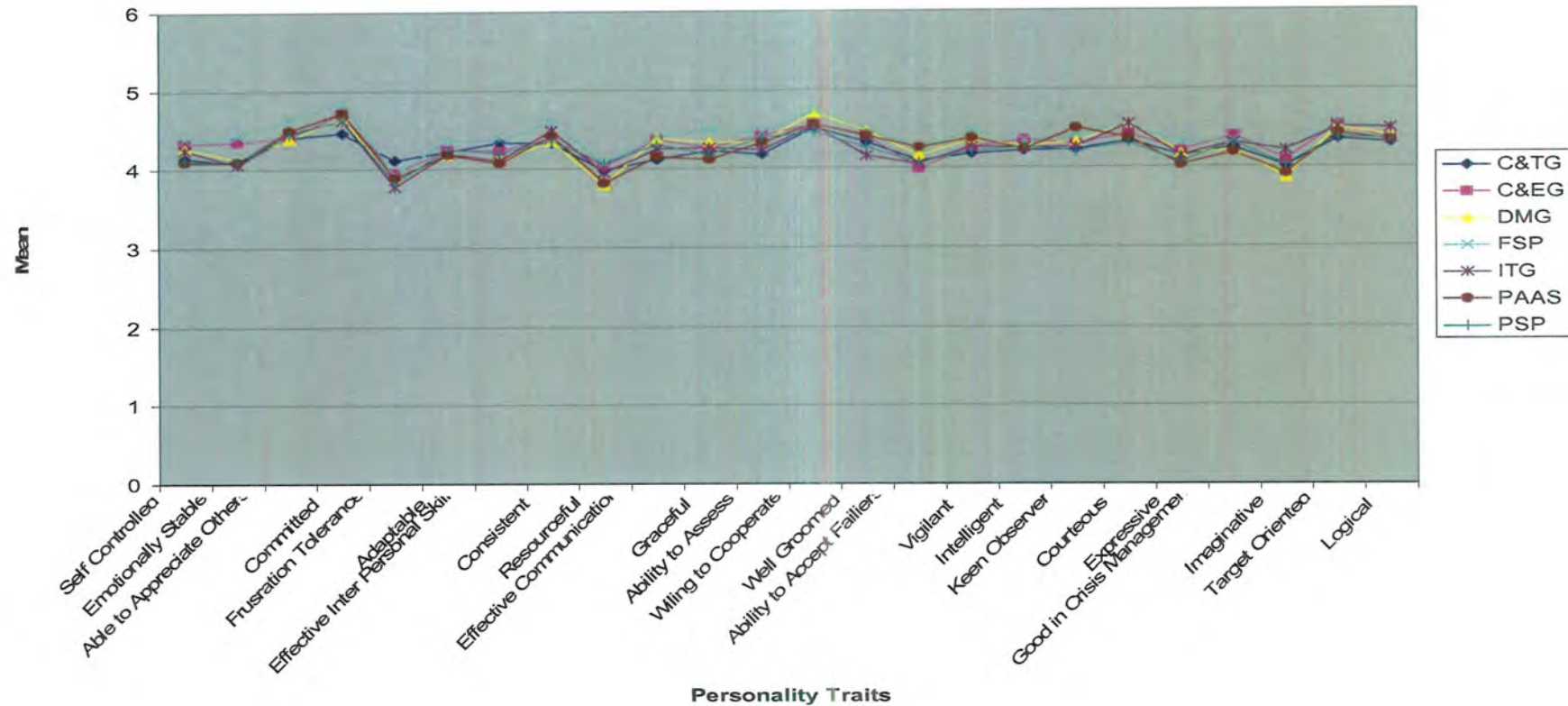


Figure 3. Mean Leadership Ability profile of seven CSS occupational groups (cadre).

In order to obtain clearer picture trait wise (subscale) analysis were also made. It is evident from Figure 3; though differences between these seven groups are nonsignificant but high mean score shows that Foreign Service executives are on the top on most of the traits of leadership as compared to other groups/services. Other groups are more or less similar in traits. The minor differences in preference of traits between seven groups seem to be in line with their job requirements.

**Table 57**

*Mean values for seven CSS occupational groups (cadre) on subscale of Personality Traits Assessment Scale (PTAS), Integrity*

Sr no.	Personality Traits	Integrity						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Straight Forward	4.24	4.15	3.98	4.19	4.17	4.19	4.09
2	Responsible	4.56	4.42	4.61	4.61	4.65	4.51	4.52
3	Dedicated	4.59	4.39	4.48	4.76	4.62	4.54	4.48
4	Impartial	4.21	4.21	4.20	4.21	4.23	4.21	4.22
5	Efficient	4.38	4.38	4.29	4.49	4.36	4.30	4.33
6	Upright	4.32	4.53	4.30	4.45	4.48	4.54	4.26
7	Confident	4.43	4.33	4.44	4.39	4.42	4.37	4.46
8	Fair	4.49	4.38	4.47	4.47	4.57	4.51	4.35
9	Sincere	4.52	4.74	4.68	4.79	4.74	4.77	4.67
10	Punctual	4.52	4.21	4.42	4.53	4.31	4.46	4.35
11	Patriotic	4.59	4.67	4.82	4.84	4.55	4.54	4.59
12	Disciplined	4.43	4.36	4.44	4.61	4.38	4.28	4.37
13	Public Service Oriented	4.44	4.62	4.45	4.63	4.33	4.39	4.52

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

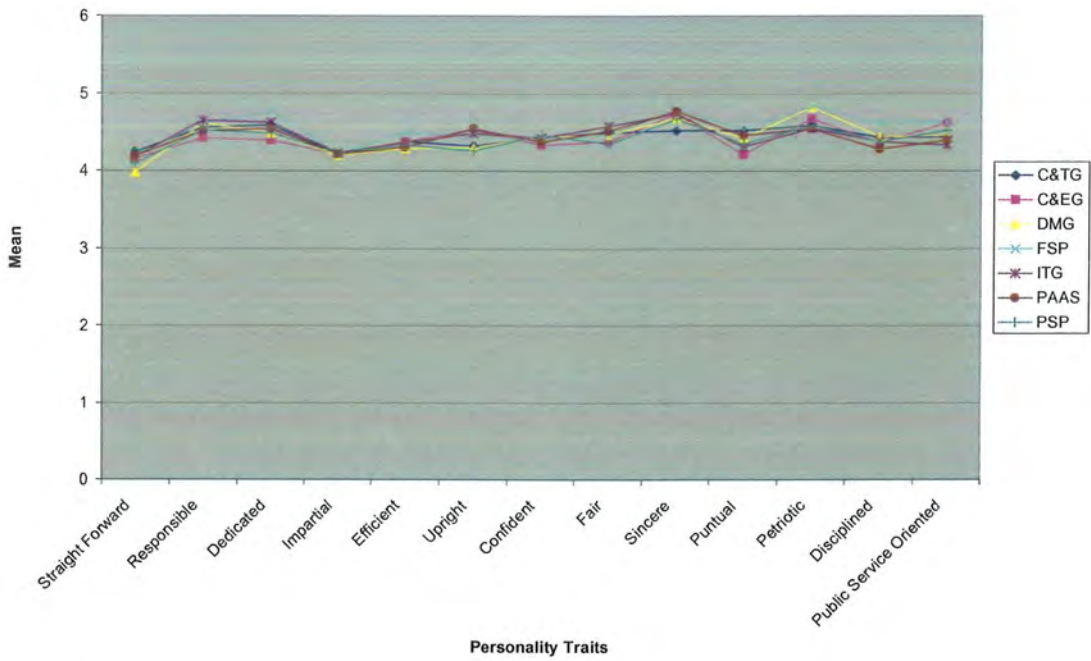


Figure 4. Mean Integrity profile for seven CSS occupational groups (cadre)

Table 57 and Figure 4 indicate that personality profiles of all seven CSS occupational (cadre) groups are overlapping on each trait of sub scale integrity. Considering the high mean Foreign Service has upper hand in possessing these traits.

**Table 58**

Mean values for seven CSS occupational groups (cadre) on subscale of Personality Traits Assessment Scale (PTAS), Emotional Maturity

Sr. #	Personality Traits	Emotional Maturity						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Traditional	3.14	3.42	3.38	3.45	3.57	3.39	3.30
2	Anxious	2.87	3.14	3.15	2.99	3.27	3.04	2.87
3	Adventurous	3.89	3.70	3.52	3.91	3.68	3.74	3.70
4	Secretive	3.84	3.56	3.76	3.83	3.55	3.81	3.96
5	Dogmatic	2.83	2.56	2.67	2.56	3.01	2.75	2.69
6	Tough Minded	3.73	3.86	4.09	3.95	3.73	3.82	3.91
7	Positive Thinking	4.44	4.56	4.52	4.76	4.57	4.49	4.57

Note. CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

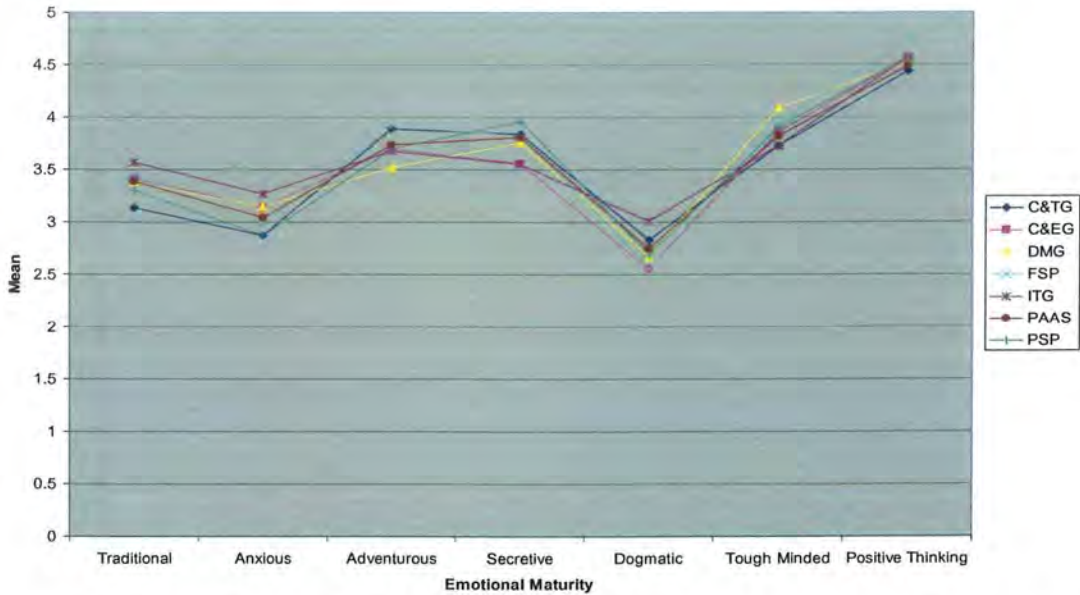


Figure 5. Mean Emotional Maturity profile for seven CSS occupational groups (cadre)

Table 58 and Figure 5 show personality profile of executives of seven CSS occupational groups/services (cadre) on emotional maturity, i.e., third sub scale of

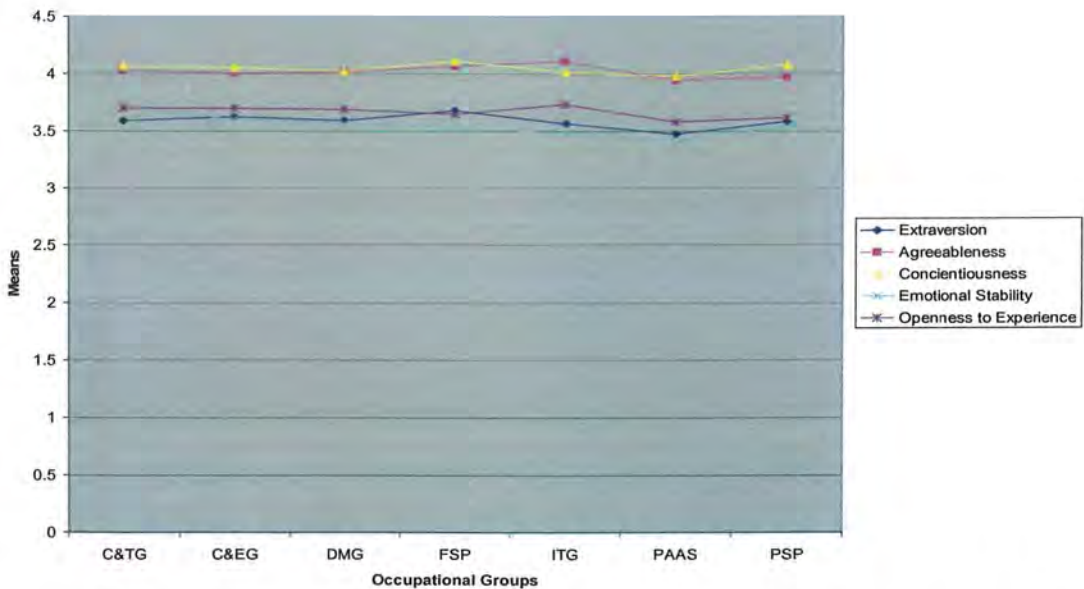
Personality Traits Assessment Scale (PTAS). All groups are more or less similar in traits however, Foreign Service executives are more adventurous, tough minded and positive in thinking.

**Table 59**

*Mean values for seven CSS occupational groups on subscales of Mini Markers (MMS)*

MMS	Occupational Groups						
	CTG	CEG	DMG	FSP	ITG	PAAS	PSP
Extraversion	3.59	3.62	3.59	3.68	3.56	3.48	3.58
Agreeableness	4.03	4.00	4.02	4.07	4.11	3.94	3.97
Conscientiousness	4.07	4.05	4.02	4.11	4.02	3.98	4.08
Emotional Stability	3.70	3.60	3.57	3.53	3.48	3.41	3.54
Openness to Experience	3.70	3.70	3.69	3.65	3.73	3.58	3.62

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.



*Figure 6.* Mean profile for seven CSS occupational groups on subscales of Mini Markers

In order to confirm the findings, personality profiles of CSS occupational groups were also compared on Mini Markers. Table 59 and Figure 6 demonstrates profile of seven groups on sub scales .All seven groups are more or less similar on extraversion, agreeableness, conscientiousness, emotional stability (Neuroticism) and openness to experience. These groups are lowest on emotional stability (Neuroticism) because high scores indicate neurotic tendencies.

**Table 60**

*Mean values for seven CSS occupational groups on subscale of Mini Markers (MMS),  
Extraversion*

Sr. #	Personality Traits	Extraversion						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Bashful	3.49	3.15	3.50	3.52	3.20	3.07	3.15
2	Bold	4.08	4.23	3.91	4.13	4.23	4.05	4.06
3	Energetic	4.32	4.48	4.29	4.41	4.49	4.35	4.46
4	Extraverted	3.22	3.42	3.26	3.52	3.37	3.07	3.44
5	Quiet	2.89	3.03	3.24	2.97	2.93	2.91	3.31
6	Shy	3.81	3.67	3.53	3.67	3.57	3.6	3.63
7	Talkative	3.10	3.36	3.39	3.45	3.01	3.26	3.13
8	Withdrawn	3.84	3.64	3.62	3.75	3.70	3.49	3.48

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

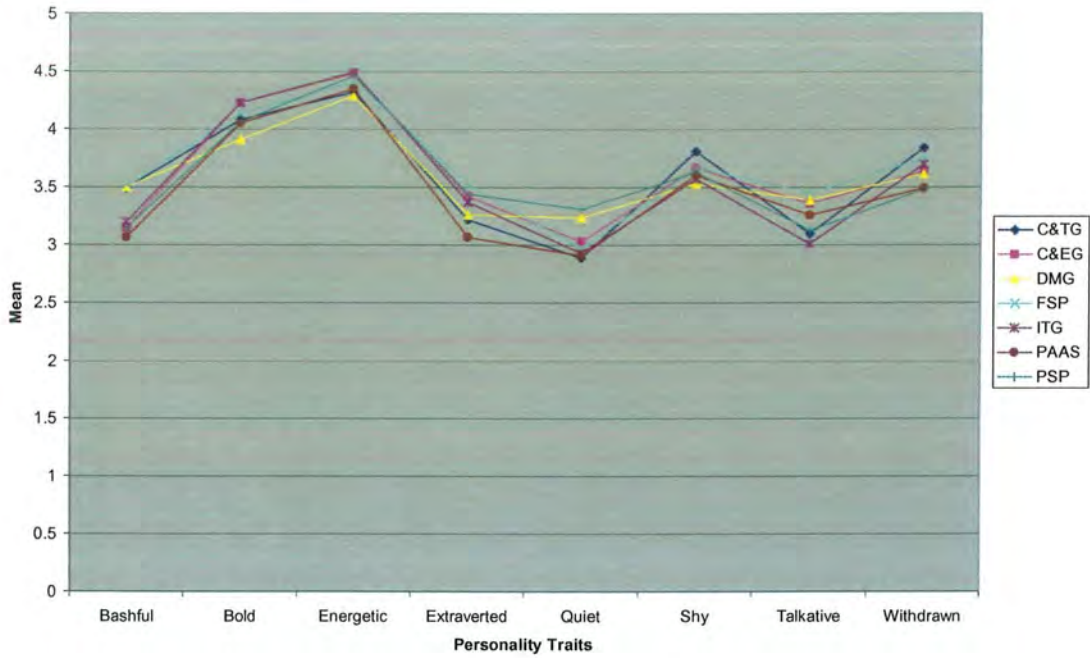


Figure 7. Mean Extraversion profile for seven CSS occupational groups

Table 60 and Figure 7 demonstrate mean profiles of seven CSS occupational groups on each trait of MMS subscale extraversion. Profiles are more or less similar. However minor differences indicate that executives working in Foreign Service of Pakistan and Commerce and Trade Group are relatively more extroverted. As high extraversion is characterized by their preference of being around other people and involved in many activities.

**Table 61**

Mean values for seven CSS occupational groups (cadre) on subscale of Mini Markers (MMS), Agreeableness

Sr. #	Personality Traits	Agreeableness						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Cold	3.59	3.50	3.41	3.40	3.74	3.35	3.46
2	Cooperative	4.38	4.82	4.47	4.63	4.49	4.54	4.22
3	Harsh	3.84	3.53	3.61	3.57	3.51	3.37	3.74
4	Kind	4.35	4.44	4.52	4.47	4.61	4.35	4.37
5	Rude	3.97	3.59	3.82	3.85	3.85	3.81	3.70
6	Sympathetic	4.21	4.29	4.44	4.36	4.54	4.40	4.33
7	Unsympathetic	4.17	3.76	3.82	3.96	3.93	3.75	3.93
8	Warm	3.76	4.11	4.06	4.29	4.19	3.95	4.02

Note. CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

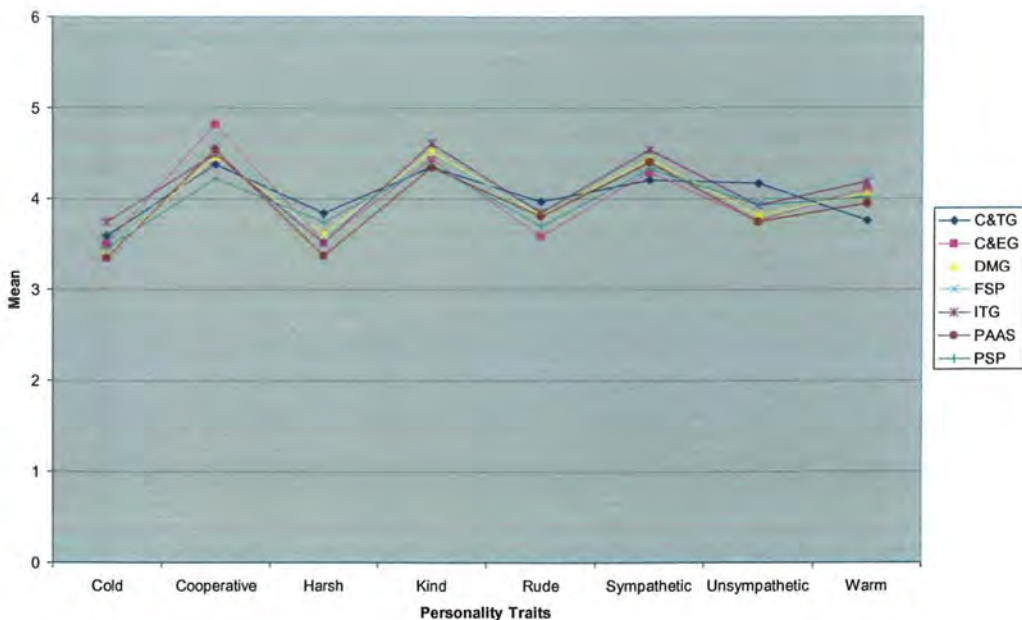


Figure 8. Mean Agreeableness profile for seven CSS occupational groups



Table 61 and Figure 8 demonstrate profiles of seven occupational groups on traits of agreeableness. For example executives of CEG) and FSP are more cooperative while police officers are rather low on this trait. Executives of PAAS are comparatively cold, harsh and unsympathetic.

**Table 62**

*Mean values for seven CSS occupational groups (cadre) on subscale of Mini Markers (MMS), Conscientiousness*

Sr.#	Personality Traits	Conscientiousness						
		C&TG	C&EG	DMG	FSP	ITG	PAAS	PSP
1	Careless	3.95	3.71	3.76	3.6	3.50	3.65	3.76
2	Disorganized	3.98	3.71	3.65	3.91	3.70	3.68	3.74
3	Efficient	4.24	4.52	4.32	4.41	4.52	4.25	4.46
4	Inefficient	4.03	3.73	3.88	4.07	3.80	3.68	4.02
5	Organized	4.17	4.47	4.29	4.36	4.25	4.39	4.33
6	Practical	4.13	4.38	4.38	4.48	4.46	4.42	4.43
7	Sloppy	3.79	3.47	3.58	3.67	3.52	3.56	3.63
8	Systematic	4.25	4.42	4.33	4.36	4.37	4.21	4.24

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

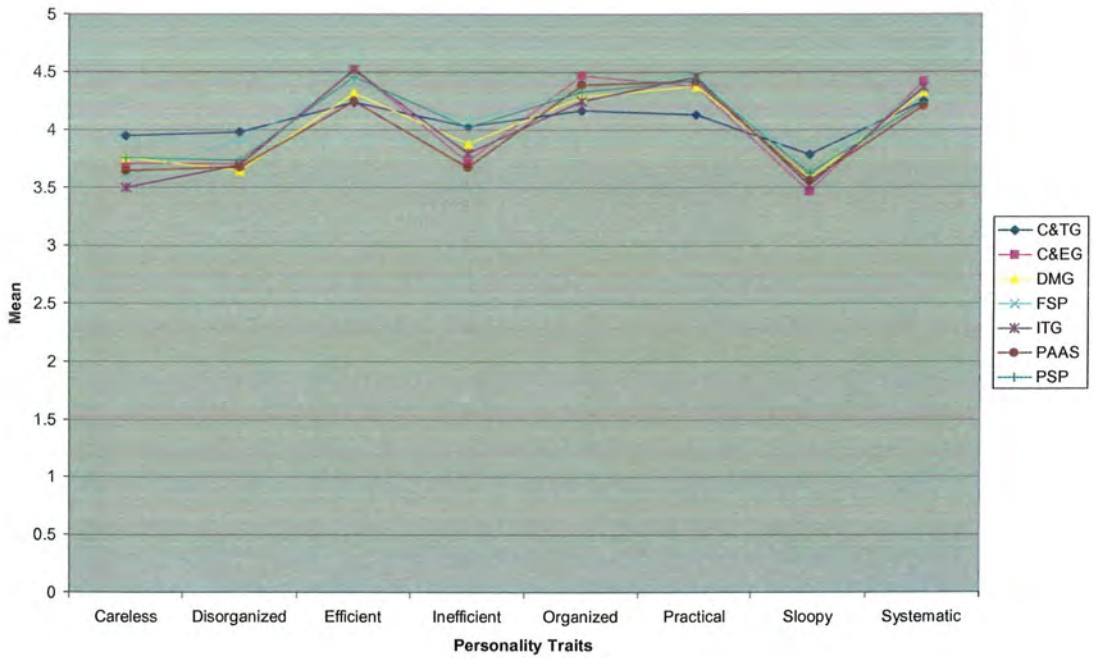


Figure 9. Mean Conscientiousness profile for seven CSS occupational groups

Table 62 and Figure 9 indicate profile of seven CSS occupational groups on traits of conscientiousness. Executives of CEG, FSP and DMG are more efficient, organized and practical as compared to other groups.

**Table 63**

Mean values for seven CSS occupational groups (cadre) on subscale of Mini Markers (MMS), Emotional Stability

Sr.#	Personality Traits	Emotional Stability						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Envious	3.89	3.77	3.61	3.64	3.54	3.53	3.76
2	Fretful	3.79	3.55	3.55	3.29	3.51	3.37	3.28
3	Jealous	4.06	3.71	3.83	3.84	3.68	3.65	3.94
4	Moody	3.44	3.45	3.32	3.28	3.23	3.05	3.22
5	Relaxed	3.73	3.88	3.88	3.85	3.79	3.77	3.76
6	Temperamental	3.35	3.39	3.24	3.21	3.14	3.05	3.15
7	Touchy	3.51	3.38	3.21	3.20	3.06	2.93	3.28
8	Unenvious	3.84	3.67	3.89	3.92	3.90	3.96	3.93

Note. CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.

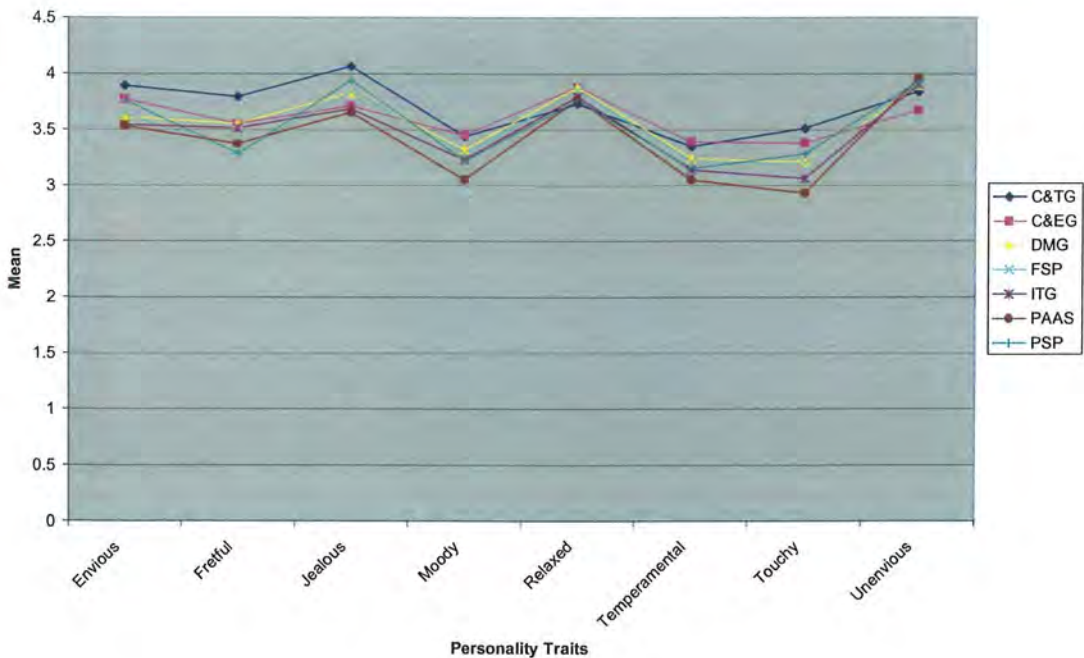


Figure 10. Mean Emotional Stability profiles for seven CSS occupational groups

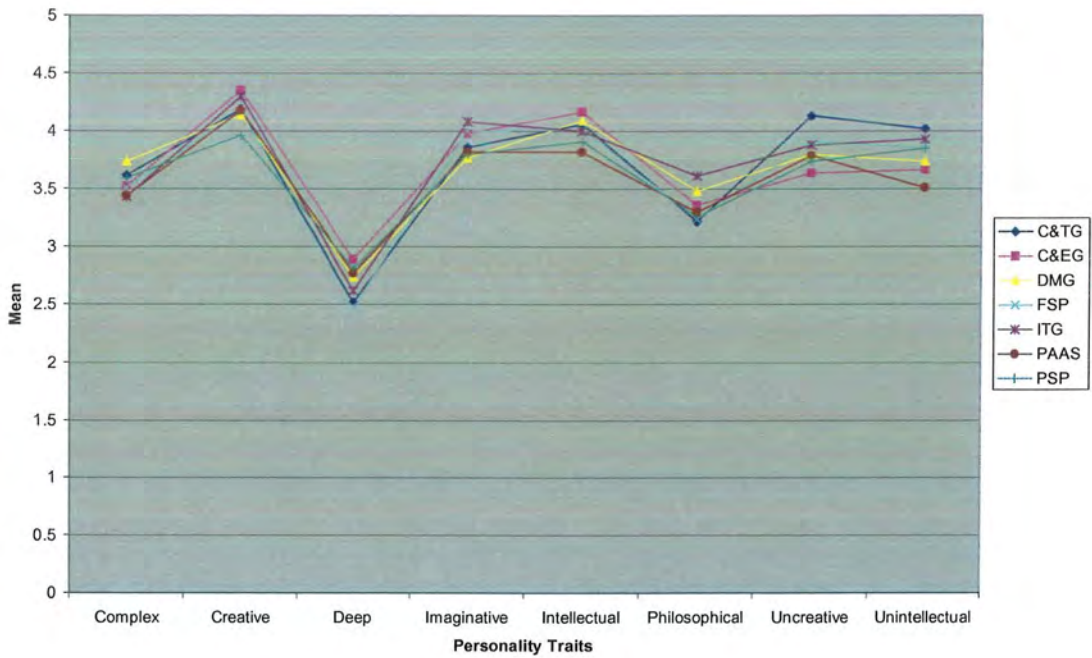
Table 63 and Figure 10 show trait wise comparison of subscale emotional stability (Neuroticism). Profile indicates that those scoring low on this are more emotionally stable because high mean score demonstrates neurotic tendencies.

**Table 64**

*Mean values for seven CSS occupational groups (cadre) on subscale of Mini Markers (MMS), Openness to Experience*

Sr.#	Personality Traits	Openness to Experience						
		CTG	CEG	DMG	FSP	ITG	PAAS	PSP
1	Complex	3.62	3.52	3.74	3.51	3.43	3.44	3.59
2	Creative	4.19	4.35	4.14	4.17	4.30	4.18	3.96
3	Deep	2.52	2.89	2.74	2.48	2.62	2.77	2.81
4	Imaginative	3.86	3.98	3.77	4.20	4.08	3.82	3.80
5	Intellectual	4.06	4.17	4.09	4.01	4.00	3.82	3.91
6	Philosophical	3.22	3.36	3.48	3.24	3.61	3.31	3.26
7	Uncreative	4.13	3.64	3.80	3.91	3.88	3.79	3.74
8	Unintellectual	4.02	3.67	3.74	3.85	3.93	3.51	3.85

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.



*Figure 11.* Mean Openness to Experience profile for seven CSS occupational groups

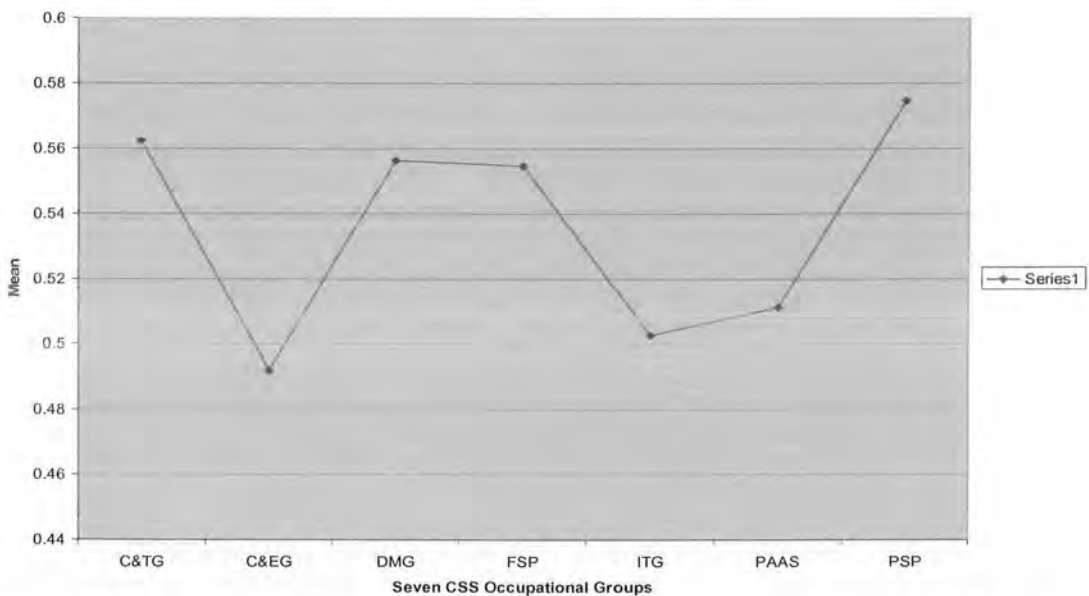
Table 64 and Figure 11 exhibit personality profiles of seven CSS occupational Groups (cadre) on MMS, sub scale openness to experience. Profile shows that all groups are very close to each other almost on all traits.

**Table 65**

*Mean Profiles for seven CSS occupational groups (Cadre) on Managerial Potential Scale (MP)*

	Occupational Groups (cadre)						
	CTG	CEG	DMG	FSP	ITG	PAAS	PSP
Mean	0.562	0.492	0.556	0.555	0.503	0.511	0.575

*Note.* CTG = Commerce and Trade Group, CEG = Customs and Excise Group, DMG = District Management Group, FSP = Foreign Service of Pakistan, ITG = Income Tax Group, PAAS = Pakistan Audit and Accounts Service, PSP = Police Service of Pakistan.



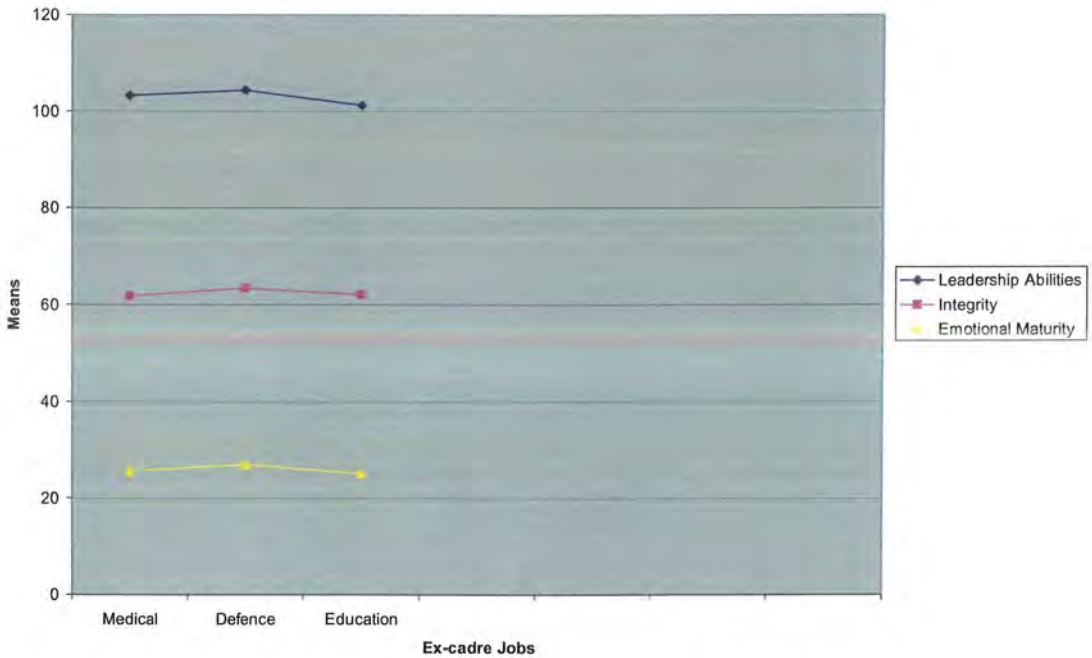
*Figure 12.* Mean profile for seven CSS occupational groups on Managerial Potential Scale (MP)

Table 65 and Figure 12 is mean graph of seven CSS occupational groups (cadre) on Managerial Potential Scale (MP) of California Psychological Inventory (CPI; Gough, 1994). As executive level position management is one of the important factors. Considering the importance mean graph of all groups has been prepared. Graph shows minor differences in profile. However, executives of PSP, CTG, DMG and FSP are relatively better in management as compared to other groups.

**Table 66**

*Mean values for ex-cadre groups on subscales of Personality Traits Assessment Scale (PTAS)*

PTAS	No. of Items	Score Range	Medical	Defence	Education
Leadership Abilities	25	25 - 125	103.34	104.41	101.28
Integrity	13	13 - 65	61.71	63.28	62
Emotional Maturity	7	7 - 35	25.52	26.91	25.06

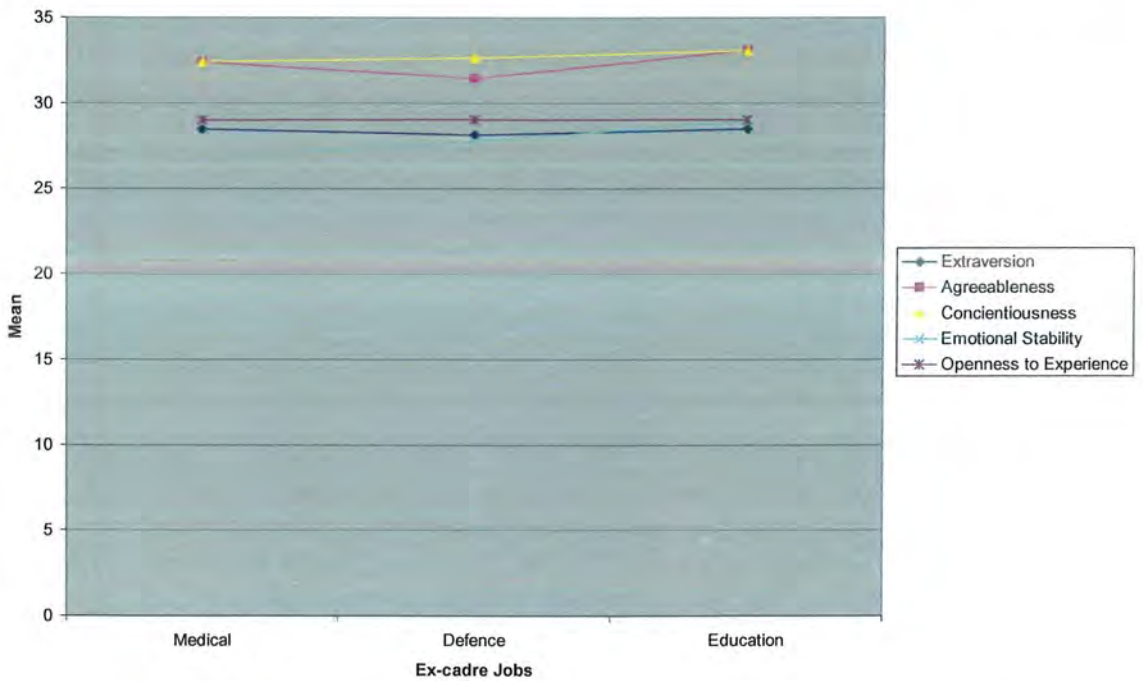


*Figure 13. Mean profile for ex-cadre groups on subscales of Personality Traits assessment Scale (PTAS)*

Table 66 and Figure 13 reveal that the differences between these three ex-cadre groups are not noticeable in the mean scores. These three groups portrays similar trends on scores on Personality Traits Assessment Scale (PTAS) which indicate that at executive level positions all these professions are at same level in possession of personality traits.

**Table 67***Mean values for ex-cadre groups on subscales of Mini Markers (MMS)*

MMS	No. of Items	Score Range	Medical	Defence	Education
Extraversion	8	8 - 40	28.45	28.14	28.5
Agreeableness	8	8 - 40	32.39	31.45	33.13
Conscientiousness	8	8 - 40	32.42	32.65	33.08
Emotional Stability	8	8 - 40	26.76	27.79	28.97
Openness to Experience	8	8 - 40	29.00	29.01	29.04

*Figure 14. Mean profile for ex-cadre groups on subscales of Mini Markers (MMS)*

In order to confirm the findings, personality profiles of three ex-cadre groups were also compared on a standardized measure Big Five Mini Markers. Table 67 and Figure 14 demonstrates profile of three groups on sub scales .All three groups are more or less similar on extraversion, agreeableness, conscientiousness, emotional

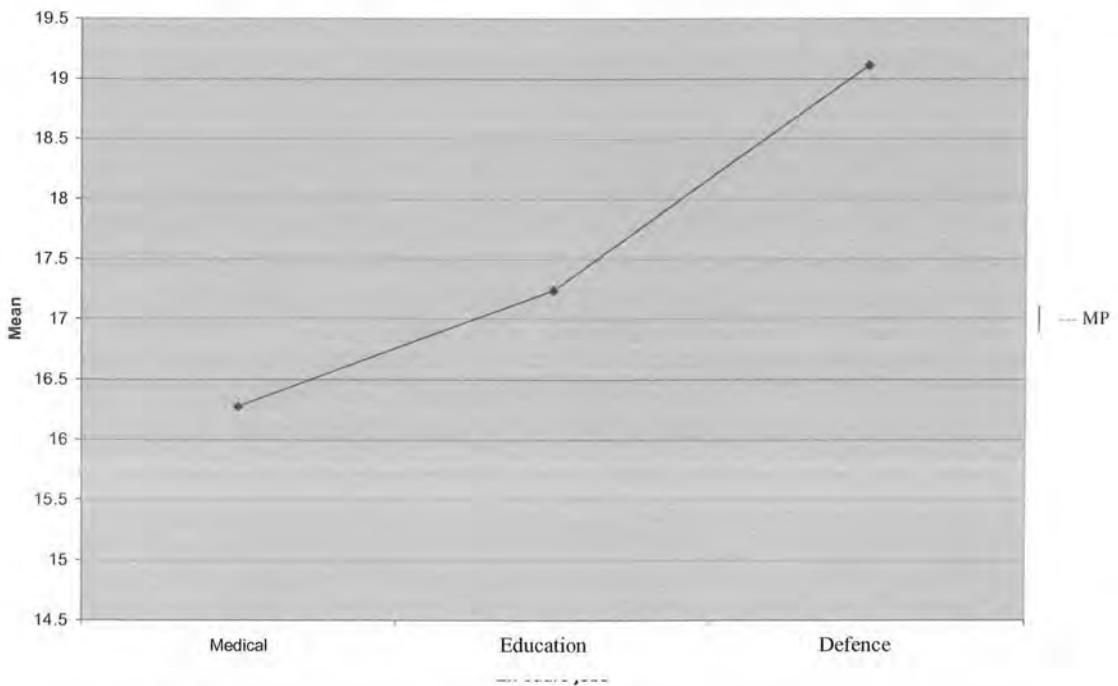


stability (Neuroticism) and openness to experience. These groups are lowest on emotional stability (Neuroticism) because high scores indicate neurotic tendencies.

**Table 68**

*Mean profiles for ex-cadre groups on Managerial Potential Scale (MP)*

	Medical	Education	Defence
Mean	16.27	17.24	19.11



*Figure 15. Mean profile for ex-cadre groups on Managerial Potential Scale (MP)*

Table 68 and Figure 15 is mean graph of three ex-cadre groups on Managerial Potential Scale (MP) of California Psychological Inventory (CPI; Gough, 1994). As executive level position handling and managing things are required for all. Considering the importance mean graph of executives working in three ex-cadre professions i.e., medical, defence and education have been prepared. Graph shows minor differences in three professions. However, according to this graph executives related to defence profession possessed relatively more management qualities as compared to other two groups.

## Discussion

Psychologists interested in the area of Vocational behavior suggest that personality is associated with the kinds of careers people choose and how they function in these occupations. The idea is that people with certain characteristics will select and function better in some occupations than the others. For example people high in extraversion will do better in social and enterprising occupations relative to individual high on introversion (Pervin & John, 1997).

Studies have shown that certain personality traits predict certain work related behaviors, stress reactions, and emotions fairly well under certain conditions. Scholars have reintroduced the idea that effective leaders have identifiable traits. Personality traits seem to help people find the jobs that best suit their needs (as cited in McShanne & Von Glinows, 2005). Trait approach which is based on the idea that proper way to study differences among individuals is by developing a standard set of qualities, or attributes, and then describing people in those terms.

Any organization is expected to comprise of executives of diversified skills, abilities and personal qualities. It ranges from an outstanding enterprising individual to a steady worker who might not possess the qualities that brings him to the forefront. Keeping in view this assumption present study was carried out to explore the similarities/differences in personality traits of executives working in different occupational groups, cadre and ex-cadre.

For this purpose a 45 items scale was indigenously developed. Psychometric properties of the scale and relationship between personality traits and demographic variables i.e. gender, age, education, and job experience, were also studied. Further the extent to which executives working in CSS occupational groups (cadre) are

different from ex-cadre group executives, which include three professions Medical, Defence, and Education, in terms of Personality traits. Out of twelve Occupational Groups of Civil Services seven were selected because these groups are most preferred among candidates (FPSC, Annual Report, 2003) mainly due to good service structure, job security, promotion opportunities, power, authority, and exposure. These groups are CTG, CEG now renamed as Pakistan Customs Service (PCS), DMG now renamed as Pakistan Administrative Service (PAS), FSP, ITG now renamed as Inland Revenue Service (IRS), PAAS and, PSP .

Part I of the study related to development of scale. Part II (phase-1) was pilot testing and validation study which was carried out for pre testing the instrument developed in Part I and to determine the psychometric properties of the scale. Part II (phase II) was the main study which was carried out on a larger sample. Other instruments were also used in this part to study these variables. This was an exploratory study and no assumption before hand was made.

**Occupational Groups (Cadre).** In any form of government the purpose of creating Civil Service is to build hard core professionals possessing, intellectual ability, moral standing, free from political interference. Effective Civil Service system has to ensure that the civil servant discharge their responsibilities impartially and contribute to building credible institutions To explore the differences/similarities in personality traits, if any, of executives working in these seven groups on newly developed Measure i.e., Personality Traits Assessment Scale (PTAS) *ANOVA* was computed. Results (see table-39&40) indicate nonsignificant differences on Personality Traits Assessment Scale (PTAS), Mini Markers (MMS) (Saucier, 1994) and Managerial Potential Scale (MP) Gough (1994). Though nonsignificant

differences have been found between seven occupational groups but executives working in Pakistan Foreign Service showed slightly greater mean score on all the subscale as well as total PTAS, MMS and its two subscales i.e., extraversion and conscientiousness. Executives working in Police Service have relatively greater mean score on Managerial potential Scale. High mean of one group and low on others shows minor differences in degree of possession of traits but these are not significant to give due importance. Consistency in trends of result on all three scales indicate that executives working in seven most preferred occupational groups have more or less common personality traits which are considered important for working in all these groups. Reason for nonsignificant differences can be that this group appeared more homogeneous as was expected. All the executives have gone through the same selection system with fixed criterion of selection and also have same spirits of competition, desire to excel, ambitious nature and high desire of power and authority. Previous studies carried out on occupational groups such as aviation officers and non aviation officers of PAF also revealed nonsignificant differences on all personality traits (Ashraf, 2004). In another study on relationship of organizational culture and personality traits positive but nonsignificant correlation was found (Shahid, 2006). The study conducted to compare personality profile of Air force and the Pakistan Army; showed that two groups were found similar on 4, out of 15 traits (Tabassam, Saeed, & Farooq, 1994). Lambirth, Dolgin, Rentmeister-Bryant, and Moore (2003) indicated that pilot and flight officer's candidate are more or less similar on personality traits. Mastor, et al. (2007) suggested that Malay and Chinese students were same on conscientiousness but somewhat different in degree on neuroticism and openness to experience. Satter et al. (2009) compared the homogeneity of a set of personality characteristics in eight occupations. Results indicated homogeneity within

occupation was higher than that found in an organization. Smithikari (2007) examined relationship of personality traits and job success on seven occupations. Result showed that all occupational groups were same on traits. Smithikrai further examined the predictive power of each facet of the five factor model of personality on job success in a Thai sample from seven occupations. Research found that for all occupational groups' neuroticism was significantly negatively correlated with job success, while extraversion and conscientiousness were significantly positively correlated with job success. All these studies provide evidence that similar occupation required more or less common personality traits.

**Occupation (Cadre & Ex-cadre Group).** One of the objectives of main study was to investigate similarities/differences, if any, in personality traits of cadre and ex-cadre executives. Result indicates (see Table- 41) nonsignificant differences between cadre and ex-cadre executives on two subscales of Personality Traits Assessment Scale (PTAS) i.e., Leadership Ability and Integrity. However, on third subscale Emotional Maturity difference between two groups is significant. In the light of finding we can say that cadre group is relatively better on emotional maturity as compared to ex-cadre group. But on the basis of these findings conclusion cannot be drawn as sample of ex-cadre group is relatively small and some further investigation need to be done on this subscale as its reliability is relatively low. In order to confirm the findings, differences between these two groups were also examined on MMS (Saucier, 1994), subscales and Managerial Potential Scale (MP) of California Psychological Inventory, Gough (1994). Result demonstrates (see Table- 42) same trend i.e., nonsignificant differences have been found on subscales of MMS as well as on MP Scale. But cadre group revealed slightly greater mean score on one subscale of

MMS i.e., extraversion and also on Managerial Potential Scale. However these differences are not important.

Throughout all aspects of life people with similar characteristics tend to gather together. This similarity provides a basis for building cooperation and cohesiveness among people. Findings suggest a strong positive relationship between degree of similarity among individuals on characteristics, such as personality and quality of interpersonal experience with one another (Byrne, 1969, 1971). Organizations have a natural tendency to attract, select people who have similar characteristics (Schneider, Goldstein, & Smith, 1995). As in this study sample includes only executives with minimum qualifications i.e., graduation and BS-17. All executives have undergone training and they are experienced people. Findings indicate that the personality traits are common for all executives either working in CSS occupational groups (cadre) or in ex-cadre post. According to findings of present study and study carried out by Chabra and Sokhey (1994), between Teachers, Bankers and Policemen, on three personality traits, nonsignificant differences have been reported. It suggests that executives have similar personality traits irrespective of the profession.

**Comparison within Ex-cadre Groups.** Ex-cadre group include three professions i.e., Medical, Defence, and Education. Among the professional hierarchy medical and education are most liked, admirable and prestigious Defence services as the name suggests are mainly responsible for security of the country. The nature of work of these three professions is quite different and it was assumed that personality traits within these groups will be different from each other. Differences between three groups were analyzed on all three measures used in this study. Findings of the study

reveal nonsignificant differences on Personality Traits Assessment Scale (PTAS) as well as on Mini Markers (MMS). However, Defence officers of the present study showed relatively greater mean scores on PTAS subscales i.e., leadership ability, integrity and emotional maturity as compared to doctors and teachers (see Table-43). Other measure i.e., MMS does not show any difference between two groups except extraversion (see Table-44). But on the basis of these minor differences conclusion cannot be drawn that one group is better than other. However, the third measure i.e., Managerial Potential scale shows significant difference between means of three groups (see Table-44). Executives working in defence showed higher mean score on this scale. One possible reason for this can be that in defence more emphasis is laid on management and training in academy and later during whole service. Training is a permanent feature throughout their employment. Different courses such as young officers course, mid career course, staff college etc are compulsory at junior, mid and senior level positions for all executives in which more emphasis is given on management. In management leadership is the actual ability to direct or supervise others. Zdep (1969) reported that high scores on MP scale exhibited more leadership qualities. On the basis of this we can say that defence officers exhibited more potential for management.

*Differences between CSS Occupational Groups With Training and Without Training.* Training is an important component for allocated candidates of various occupational groups. Training is reeducation and retraining which aims at improving, replenishing and broadening certain knowledge. It mainly makes them to learn about the important information including new policies, law etc, to master the new technology in work and to improve working methods.

One of the objectives was to see effect of training, if any, on personality traits of executives. For this purpose two independent samples were taken, i.e., executives with training and other group was of fresh allocated candidates who just joined academy and before starting training data was collected. To see the difference in personality traits of executives with training and without training *t*-test was applied. Finding (see Table- 45) indicates nonsignificant difference between two groups. Differences between two groups were also studied on MMS and MP. Result also shows (see Table- 46) nonsignificant differences on MP Scale. Apparently one may expect some differences between these two groups but findings of present study revealed nonsignificant differences. One possible reason for this can be that training is related specifically with enhancement of working knowledge and change in personality traits is not targeted. After training final passing out examination is mandatory for all probationers which is totally based on working knowledge. Another reason for nonsignificant difference can be that most of the allocated candidates (without training) when joined Common Training Programme belong to one or the other profession such as medicine, engineering, teaching, defence etc and have some working experience as well as training in their own field. No previous studies are available which confirm these findings. It has been observed that training creates grooming and refinement in the personality.

**Relationship between Personality Traits and Demographic Variables of Gender, Age, Education, and Job Experience.** To achieve the objective of the study the demographic variables i.e., gender age, education, and job experience were studied to see their effect on personality traits. These variables were also analyzed by other instruments used in this study. Differences among responses of the executives



on Personality Traits Assessment Scale (PTAS), Mini Markers (MMS) and Managerial Potential Scale (MP) were analyzed by computing *t*-test and Analyses of Variance (*ANOVA*).

**Gender.** The study of gender differences is currently a topic of considerable interest and activity within individual differences. In CSS examination men and women both appear and selection is based on merit, therefore need was felt to compare the two groups. To study the gender differences with reference to personality traits of executives i.e., Men and Women mean, standard deviation, and *t*-test were computed on all three tests used in this study. Nonsignificant difference between men and women has been found on newly developed Personality Traits Assessment Scale (PTAS) and its subscales (see Table- 47). Findings on Table-48 also reveal same trend i.e., nonsignificant differences on MMS subscales and MP Scale of California Psychological Inventory (CPI, Gough, 1994). One possible reason can be, as candidates for these occupational groups are selected through Competitive Examination after rigorous exercises and having same ambitions and competitive spirits, therefore gender differences with reference to personality traits are not significant. It means that men and women executives have similar personality traits for working in their respective groups. The women sample used for gender comparison is less. The reason is that percentage of qualifying female candidate is only 18 to 20 and in certain services there are very less presence of female. However, over the years it is increasing, therefore further research need to be done to draw any conclusion. However, findings of present research are supported by research conducted on authoritarianism and social dominance orientation that men and women do not differ much in their levels on these traits (Altemeyer, 1998; Lippa, 1995, Lippa

& Arad, 1999; Sidanius, Pratto, & Bobo, 1994). ). Costa and his Colleagues (2001) found that gender differences are stronger in economically advanced countries as compared to economically less advanced Countries with more traditional gender roles.

*Age.* In order to see the relationship of personality traits with age, data was divided into three groups i.e., 22-30, 31-45 and 46-59 years. As 21 years of age is minimum requirement to apply for competitive examination and 28 is maximum, with 2 years continuous government service relaxation of another two years i.e., 30 years of age is allowed. In order to examine the similarities/differences in personality traits on the basis of age of executives, *t*- test was computed. Significant differences were found (see Table- 49) between three age groups on two subscales of PTAS i.e., Leadership Ability and Integrity. Older executives belonging to age group executives 46-59 years showed highest mean score. Which mean they possess more leadership qualities and are more value oriented, fair and upright. This can be a result of their roles which demands such qualities as executives. Significant difference also has been found on Managerial potential scale between three age groups. Difference between these age groups suggesting, that senior executives (older age group) have more talent for supervisory and managerial role. One reason can be they are clear in thinking, can direct cooperation from others, and mature as compared to the younger age groups. This trend is supported by study carried out on assessment of organizational leadership (Shujaat, 1992)

To see the effect of age on personality traits same analysis were carried out on other scale used in this study i.e., MMS. Result (see table- 50) indicate non-significant differences on all subscales of MMS except agreeableness on which difference is

significant. This indicates that senior people are more tender minded as this is a trait of agreeableness. On other four subscales though difference is nonsignificant but older group of executives showed greater mean score, as the trend is same. Personality changes do occur in many individuals between college age and middle-age, but after about age 30, stability is clearly the rule. Trait researcher suggests that individual standing on the Big Five traits remains quite stable after about age 30. Before that age however, there seems to be considerable growth and change (Costa & McCrae, 1994).

**Education.** is one of the conditions for all executives. The data was divided into two groups on the basis of education i.e., graduate and post graduate. Mean, standard deviation and *t*-test analysis were computed. Results show that there is nonsignificant difference between two groups on all subscales of Personality Traits Assessment Scale (PTAS) (see Table- 51) i.e., Leadership Ability, Emotional Maturity and Integrity. This indicates that all executives have certain level of required maturity, leadership and integrity. Same analysis was carried out on Mini Markers (Saucier, 1994) and Managerial potential Scale (MP) of California Psychological Inventory (Gough, 1994). Table 52 exhibits nonsignificant differences on all subscales of MMS and MP Scale. It means that educational level showed no effect on personality traits between these groups. Executives having graduate degree and post graduate degree possess similar traits, such as Extraversion, Agreeableness, Conscientiousness, Emotional Stability and Openness to Experience. No such studies are available to support the findings of present research.

**Job Experience.** is one of the important variables for executives; therefore, it was decided to see differences, if any, in personality traits of executives with

reference to job experience. For this purpose data was divided into three groups on the basis of experience. First group had experience up to 5 years, next 6 years to 15 years and third had experience of 16 years to 36 years. Findings (see Table-53) show significant differences between three groups on two sub scales of PTAS i.e., Leadership Ability and Integrity. Highest mean score is of senior executives having 16 -36 years experience and next in line is second group of 6 -15 years experience. They are high on Personality Traits Assessment Scale (PTAS) (see Table-53). As expected senior executives show more healthy personality traits such as maturity, integrity and leadership qualities compared to other groups. The result indicates the positive effect of experience on personality traits. In order to confirm these findings, differences in personality traits between three groups have also been studied on MMS, subscales and MP Scale. Result reveals (see Table- 54) significant differences on MMS and MP scale.. Findings of study by VandenHout, Peter, and Feij (1993) confirmed the effect of job experience on personality traits. Another study conducted by Shujaat, Zehra, and Anila (1996) revealed that older executives showed more leadership traits.

In order to get more clear picture about personality traits of executives working in Commerce and Trade, Customs and Excise, District Management, Foreign Service, Income Tax, Pakistan Audit and Accounts and Police Service of Pakistan, personality profiles of these groups were also compared graphically on all measures used in this study (see figures 2- 12) . Personality profiles of all groups are more or less similar on all these measures which show consistency in trends. One of the reasons for nonsignificant differences in personality traits might be that all officers are educated and experienced. Another reason can be that these officers are selected through long and hectic series of written examination, Psychological Assessment, and Viva Voce. All executives working in CSS occupational groups pass through same

system and then they join initially Common Training Programme and later specialized training in each group. These can be the reasons for nonsignificant differences.

On the whole it can be suggested that indigenously developed Personality Traits Assessment Scale (PTAS) is a reliable and valid measure (Scale) to assess personality traits of executives working in CSS occupational groups.

This study was an exploratory study and findings of present study indicate that executives working in selected seven CSS occupational groups have similar personality traits. Cadre and Ex-cadre group of executives were also compared and nonsignificant differences have been found which indicate that these are common personality traits which are required at executive level position therefore it is suggested to confirm this finding. This scale can be administered to other professions. Most of the findings of main study are similar to pilot testing of scale which shows consistency in trends.

## **GENERAL DISCUSSION**

## GENERAL DISCUSSION

The study of personality is one of the most important factors in determination of an individual's success, personal satisfaction and interest in a job. Knowledge, skills and abilities are not the only conditions for selection in civil services there are certain personality traits which are distinctive and expected to be specific for certain occupations/professions. As a civil servant plays an important role in the functioning of government and policy making at highest level and they are expected to be individuals with some unique characteristics which are special to these groups.

Exploration of personality traits of cadre and ex-cadre executives is a new field of study in Pakistan. In Pakistan the present research is first of its kind and few researches, if any, have been carried out to study personality traits of executives of CSS occupational groups and ex-cadre civil posts before this study. Present research is an exploratory study to find out the similarities/differences in personality traits of executives working in seven selected CSS occupational groups. Out of twelve Civil Services groups seven groups were selected for study considering the popularity of these groups among CSS candidates mainly due to power, authority promotion opportunities, and better perk and privileges. It was also aimed to investigate similarities/differences, if any, in cadre and ex-cadre groups with reference to personality traits. According to the CSS selection system those candidates who get high marks in written examination and viva voce get their preferred occupational groups. The study was intended to develop an instrument to be used for assessment of personality traits of intending candidates for selection purposes.

The research study has been completed in two parts. Part one is related with indigenous development of new measure for the assessment of personality traits of executives working in seven selected occupations. The development of instrument was started by exploring the personality traits of executives essential for working in each group. This part consisted of four phases, with independent sample in each phase. Factor analysis has been used to develop the instrument. Reliability of instruments was established. The estimates of alpha coefficient are quite satisfactory. In Part-II of the study, Phase-I was based on validation and pilot testing of the instrument. Pilot testing was carried out on a smaller sample for pretesting and validation of instrument. Psychometric properties of the instrument developed in part-I i.e., reliability and construct validity was established. Considering the results we can say that newly developed measure i.e., Personality Traits Assessment Scale (PTAS) emerged as a self-report measure to assess personality traits. High scores on PTAS reveal high level of possession of these traits. Pilot testing of the instrument was also aimed to examine the similarities in seven selected CSS occupational groups' cadre and ex-cadre and also to investigate the differences in personality traits with reference to demographic variables, i.e., gender, age, education, experience. The result of pilot testing reveals nonsignificant differences in personality traits of cadre and ex-cadre executives, and with reference to demographic variables.

Main study was carried out in Part-II, Phase-II. Purpose of this part was primarily to explore the similarities/differences in personality traits of executives working in these seven occupational groups (cadre) and also to see the similarities /differences, if any, in personality traits of cadre and ex-cadre executives and the effect of different demographic variables i.e., gender, age, education, experience, on personality traits. For this purpose *t*-test and One Way Analyses of Variance



(ANOVA) were computed. These Analyses were also carried out on other related measures i.e., Mini Markers Set (MMS) (Saucier, 1994), Managerial Potential Scale (MP) of California Psychological Inventory (Gough, 1994) to confirm the findings. Findings of the study highlighted the fact that Pakistani executives of both cadre and ex-cadre groups have more or less common personality traits. The result of the study also showed nonsignificant effect of demographic variables on personality traits. Considering the consistency in trends of findings of pilot and main study we can say that gender, age, education, and experience do not affect on personality traits. Main reason for nonsignificant differences is that these groups are homogeneous.

Overall, we can say that nonsignificant findings indicate that these traits are common personality traits which are required for all executives working at these responsible positions irrespective of occupation, cadre and demographic effect. However, degree of possession of traits can vary from individual to individual. It also reveals that professions attract people with similar personality traits. According to studies conducted elsewhere, as mentioned in introduction, indicate that executives working in similar occupations mostly have similar personality traits. This study will endeavor to reveal significant personality traits of civil service executive at the time of selection. It is expected that all executives would possess the desired personal qualities. They are expected not only to be competent in their respective fields but also possess good personal qualities/traits so that they can take on multiple tasks to fulfill the requirements of the positions they hold.

## Conclusion

Personality Traits Assessment Scale (PTAS) has been indigenously developed by the present researcher to explore the similarities/differences of Pakistan Civil Service Executives i.e. cadre and ex-cadre. Examination of the available data suggests that it possesses sufficient reliability and consistency internally to be used with confidence over times. Validity studies were carried out to study utility for peculiarities of Pakistani culture. Convergent and discriminant validity was also established and standardized procedure for validation was followed. In future PTAS may be useful for identifying specific personality traits expected in executives. It may also be useful in selection procedures.

The data of present study is based on individuals who were already selected for particular jobs therefore the sample is homogenous and stratified manner. As already indicated this research is a first step in exploring likely similarities and differences in personality traits required for various jobs/occupations. These findings suggest that at executive level positions similar traits are required for working in responsible positions. It means these are common traits which are essential at executive position.

Result of this study show a general agreement on the desirable traits of these groups and confirms that these personality traits are common and required for all executives for working at responsible positions. This also paves way for future longitudinal studies and would also help in selection of prospective candidates.

### Limitations and Suggestions

The current research provided an important contribution to exploring personality traits in executives. However as it was an exploratory study there are certain limitations that need to be kept in mind when interpreting the result. The present study is a first step towards some un-chartered territories and has many avenues which can be further studied and examine

- a) In present research first limitation that was observed is that there is a self selection bias as the researcher had no choice to receive the questionnaires from those who did not complete either due to very busy schedule or lack of interest. Numbers of questionnaires were returned incomplete and some avoided giving required demographic information.
- b) In present research only public sector executives have been included. A comparison of personality traits of public versus private sector executives would further strengthen the results of the present study that executives whether public or private, cadre or ex-cadre have similar personality traits.
- c) Another limitation is that third factor of the PTAS i.e. emotional maturity has relatively low reliability therefore psychometric properties of this sub scale need to be checked further.
- d) It is a cross sectional study and repeated measure analysis was not possible due to non availability of same sample of executives due to their frequent postings/transfers from one organization to another or one place to another or foreign postings and promotion etc. This missing aspect can be explored in further research with more planning and effort.

- e) A study of personality traits of executives and non executives in public sector general as well as technical could also add a new dimension to the area of study.
- f) This was an exploratory study and it has initiated a new avenue in research and similar studies need to be replicated in various avenues of Civil Services and other Services to identify common/different personality traits for executive.
- g) Another limitation noted is that women sample used for gender comparison is less. The reason is that number of women qualifying competitive examination is relatively less. Normally 18% to 19 % qualify written examination and in certain services there are very less presence of females e.g. previously there was only one female in Police Service of Pakistan and in other occupational groups number was also less. Over the year this has increased especially after reservation of 10% quota for women. Future research in this is a need to be done to compare the gender differences.
- h) The study is based only on Federal Civil Services sample. Therefore inter provincial studies on similar services should also be carried out to study personality traits of Civil Servants in different regions of the country and will further throw light on different dimensions.
- i) A cross cultural study can be done especially within the South Asian Region Countries.
- j) Whereas new studies would shed more light on various aspects of personality traits, it is emphasized that efforts to take larger and more representative

sample may be ensured, an aspect which could not be fully addressed in the current study.

- k) Due to constraints of time that could be spared by respondents shorter version of instruments were used, studies with longer version can also be done.
- l) Similarities/differences between two groups of education are nonsignificant with reference to personality traits. Though number of studies related to personality traits and education are available but to support the findings of present research none of the study has been found. To confirm these finding further studies need to be done on a larger and diversified sample.

### **Implications of the Study**

The implications of the findings for research on personality traits are as follows:

- i. Personality Traits Assessment Scale (PTAS) has been developed indigenously on Pakistan population of Civil Servants belonging to seven occupational groups. The development of personality Traits Assessment Scale (PTAS) may offer useful constructs to assess personality traits of intending candidates for Civil Services at the time of induction into services.
- ii. PTAS is a brief scale which can be completed within five minutes. Therefore it is less time consuming, easy to understand and developed in Pakistani culture therefore most respondents do not hesitate to fill it. It will be easy for data collection especially for larger population like intending applicants for jobs, and it is also easy to score.

- iii. The present research may also be useful for assessment of personality traits of ex-cadre executives specifically related to Medical, Defence, and Education. As findings of the research indicate that basic personality traits are same for these professions despite diverse nature of jobs.
- iv. Identification of personality traits of executives and non-executives in public sector jobs has laid down basis of further research and understanding of this area and bases for future study.

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## APPENDICES

## APPENDIX – A

ENLISTMENT OF PERSONALITY TRAITS

As a part of research study being carried out in National Institute of Psychology Quaid-i-Azam University, Islamabad, to identify similarities/differences in personality traits of executives working in CSS occupational groups (Cadre) such as Commerce and Trade Group (CTG), Customs and Excise Group (CEG), District Management Group (DMG), Foreign Service of Pakistan (FSP), Income Tax Group (ITG), Pakistan Audit and Accounts Service (PAAS) and Police Service of Pakistan (PSP), you are requested to enlist the personality traits (at least 20) which in your view are especially essential for working in **your occupational group**. You can use a single word or a sentence to describe the traits/characteristics. To ensure the confidentiality we do not need your name to be mentioned, however, following information is needed as part of research.

Sex \_\_\_\_\_ Education (last degree) \_\_\_\_\_ Age \_\_\_\_\_

Marital Status \_\_\_\_\_ Occupational Group \_\_\_\_\_

Designation \_\_\_\_\_ Length of Experience \_\_\_\_\_

Thank you very much for the cooperation.

**Essential Traits**

**LIST OF PERSONALITY TRAITS FOR SEVEN CSS OCCUPATIONAL  
GROUPS GENERATED FROM TWO SOURCES**

**PAKISTAN AUDIT AND ACCOUNTS SERVICE (PAAS)**

- |                                   |                                  |
|-----------------------------------|----------------------------------|
| 1. Responsible                    | 16. Cooperative                  |
| 2. Dedication                     | 17. Dutiful                      |
| 3. Straightforward                | 18. Dependable                   |
| 4. Intelligent                    | 19. Good interpersonal Skills    |
| 5. Clear headed                   | 20. Keen Observer                |
| 6. Decisive                       | 21. Critical minded              |
| 7. Efficient working              | 22. Courteous                    |
| 8. Fairness                       | 23. Organize                     |
| 9. Problems solving ability       | 24. Ability to devise short cuts |
| 10. Target oriented               | 25. Even tempered                |
| 11. Composure                     | 26. Positive thinking            |
| 12. Competent                     | 27. Secretive                    |
| 13. Tough minded                  | 28. Emotionally stable           |
| 14. Open minded                   | 29. Respectful                   |
| 15. Ability to work independently | 30. Impartial                    |

**COMMERCE AND TRADE GROUP (CTG)**

- |                          |                           |
|--------------------------|---------------------------|
| 1. Well informed         | 11. Clear headed          |
| 2. Broad minded          | 12. Loyal to profession   |
| 3. Responsible           | 13. Tough minded          |
| 4. Dedicated             | 14. Consistent            |
| 5. Bright thinking       | 15. Self-controlled       |
| 6. Cooperative           | 16. Fair                  |
| 7. Honest                | 17. Upright               |
| 8. Discipline            | 18. Punctual              |
| 9. Respectful for others | 19. Well groomed          |
| 10. Decisive             | 20. Frustration tolerance |

**CUSTOMS AND EXCISE GROUP (CEG) PRESENTLY PAKISTAN  
CUSTOMS SERVICE (PCS)**

- |                      |                           |
|----------------------|---------------------------|
| 1. Competent         | 14. Keen Observer         |
| 2. Graceful          | 15. Investigative         |
| 3. Upright           | 16. Respectful            |
| 4. Responsible       | 17. Frustration tolerance |
| 5. Sincere           | 18. Efficient             |
| 6. Dependable        | 19. Independent           |
| 7. Task oriented     | 20. Target oriented       |
| 8. Quick in decision | 21. Courteous             |
| 9. Confident         | 22. Intelligent           |
| 10. Fair             | 23. Emotional stability   |
| 11. Tough minded     | 24. Imaginative           |
| 12. Practical        | 25. Willing to cooperate  |
| 13. Patriotic        |                           |

**DISTRICT MANAGEMENT GROUP (DMG) PRESENTLY  
PAKISTAN ADMINISTRATIVE SERVICES (PAS)**

- |                                   |                           |
|-----------------------------------|---------------------------|
| 1. Effective Communication Skills | 11. Tough minded          |
| 2. Good in Crisis Management      | 12. Quick decision making |
| 3. Well groomed                   | 13. Resourceful           |
| 4. Vigilant                       | 14. Impartial             |
| 5. Expressive                     | 15. Confident             |
| 6. Intelligent                    | 16. Fair                  |
| 7. Courteous                      | 17. Tactful               |
| 8. Logical                        | 18. Responsible           |
| 9. Competent                      | 19. Emotionally stable    |
| 10. Leadership ability            | 20. Adventurous           |

**FOREIGN SERVICE OF PAKISTAN (FSP)**

- |                                    |                                  |
|------------------------------------|----------------------------------|
| 1. Intellectually high             | 16. Tolerant                     |
| 2. Broad minded                    | 17. Dedicated                    |
| 3. Sincere                         | 18. Good interpersonal relations |
| 4. Keen observer                   | 19. Expressive                   |
| 5. Good in Crisis Management       | 20. Leadership                   |
| 6. Efficient                       | 21. Independent                  |
| 7. Adaptable                       | 22. Frustration Tolerance        |
| 8. Tactful                         | 23. Practical                    |
| 9. Resourceful                     | 24. Confident                    |
| 10. Good decision maker            | 25. Responsible                  |
| 11. Patriotic                      | 26. Dependable                   |
| 12. Effective Communication Skills | 27. Well groomed                 |
| 13. Clarity of thought             | 28. Graceful                     |
| 14. Positive thinking              | 29. Vigilant                     |
| 15. Competent                      | 30. Courteous                    |

**INCOME TAX GROUP (ITG) PRESENTLY INLAND REVENUE SERVICE**

**(IRS)**

- |                              |                                |
|------------------------------|--------------------------------|
| 1. Practical                 | 13. Task oriented              |
| 2. Confident                 | 14. Ability to accept failures |
| 3. Self-reliant              | 15. Intelligent                |
| 4. Able to appreciate others | 16. Courteous                  |
| 5. Personal integrity        | 17. Low Keyed                  |
| 6. Sincere to Profession     | 18. Willing to cooperate       |
| 7. Dedicated                 | 19. Empathy                    |
| 8. Traditional               | 20. Tough minded               |
| 9. Fair                      | 21. Target oriented            |
| 10. Vigilant                 | 22. Self-Controlled            |
| 11. Critical minded          | 23. Secretive                  |
| 12. Keen observer            |                                |

POLICE SERVICE OF PAKISTAN (PSP)

- |                      |                         |
|----------------------|-------------------------|
| 1. Straightforward   | 19. Confidence          |
| 2. Honesty           | 20. Fairness            |
| 3. Responsibility    | 21. Tough mindedness    |
| 4. Dedication        | 22. Suspicious          |
| 5. Investigative     | 23. Authoritarian       |
| 6. Flexibility       | 24. Hostile             |
| 7. Adventurous       | 25. Sincere             |
| 8. Open mindedness   | 26. Secretive           |
| 9. Dependability     | 27. Dogmatic            |
| 10. Assertiveness    | 28. Conservative        |
| 11. Level-headedness | 29. Emotional Stability |
| 12. Independence     | 30. Sound Judgment      |
| 13. Traditional      | 31. Maturity            |
| 14. Low anxiety      | 32. Adventurous         |
| 15. Conscientious    | 33. Tactful             |
| 16. Impartial        | 34. Positive approach   |
| 17. Efficiency       |                         |
| 18. Integrity        |                         |

## APPENDIX – C

PERSONALITY TRAITS ASSESSMENT SCALE

This scale is a part of research being carried out in National Institute of Psychology Quaid-i-Azam University, Islamabad. The primary objective of the research is to identify similarities/differences in personality traits of executives working in various occupations such as Commerce and Trade Group (CTG), Customs and Excise Group (CEG), District Management Group (DMG), Foreign Service of Pakistan (FSP), Income Tax Group (ITG), Pakistan Audit and Accounts Service (PAAS) and Police Service of Pakistan (PSP). You are requested to identify personality traits on a **five point scale** which in your view are essential for working in **your group**. To ensure the confidentiality we do not need your name to be mentioned, however, following information is needed as part of research.

Sex \_\_\_\_\_ Education (last degree) \_\_\_\_\_ Age \_\_\_\_\_

Marital Status \_\_\_\_\_ Occupational Group \_\_\_\_\_

Designation \_\_\_\_\_ Length of Experience \_\_\_\_\_

Thank you very much for the cooperation.



## INSTRUCTIONS

The list below includes sixty traits. Select the traits which are required for officers of your group.

There is a blank space before each trait. Please write a number indicating how accurately that trait describes a person working in your group, using the following rating scale.

<i>Extremely</i>	<i>Very</i>	<i>Moderately</i>	<i>Slightly</i>	<i>Not</i>
<u>Essential</u>	<u>Essential</u>	<u>Essential</u>	<u>Essential</u>	<u>Essential</u>

- |                                                   |          |          |                                                             |          |
|---------------------------------------------------|----------|----------|-------------------------------------------------------------|----------|
| <i>1</i>                                          | <i>2</i> | <i>3</i> | <i>4</i>                                                    | <i>5</i> |
| 1. <input type="checkbox"/> Straightforward       |          |          | 18. <input type="checkbox"/> Dogmatic                       |          |
| 2. <input type="checkbox"/> Responsible           |          |          | 19. <input type="checkbox"/> Emotionally Stable             |          |
| 3. <input type="checkbox"/> Dedicated             |          |          | 20. <input type="checkbox"/> Sincere                        |          |
| 4. <input type="checkbox"/> Independent           |          |          | 21. <input type="checkbox"/> Punctual                       |          |
| 5. <input type="checkbox"/> Traditional           |          |          | 22. <input type="checkbox"/> Respectful                     |          |
| 6. <input type="checkbox"/> Anxious               |          |          | 23. <input type="checkbox"/> Tough minded                   |          |
| 7. <input type="checkbox"/> Impartial             |          |          | 24. <input type="checkbox"/> Patriotic                      |          |
| 8. <input type="checkbox"/> Efficient             |          |          | 25. <input type="checkbox"/> Investigative                  |          |
| 9. <input type="checkbox"/> Upright               |          |          | 26. <input type="checkbox"/> Able to appreciate others      |          |
| 10. <input type="checkbox"/> Confident            |          |          | 27. <input type="checkbox"/> Committed                      |          |
| 11. <input type="checkbox"/> Fair                 |          |          | 28. <input type="checkbox"/> Practical                      |          |
| 12. <input type="checkbox"/> Tactful              |          |          | 29. <input type="checkbox"/> Frustration tolerance          |          |
| 13. <input type="checkbox"/> Empathy              |          |          | 30. <input type="checkbox"/> Adaptable                      |          |
| 14. <input type="checkbox"/> Adventurous          |          |          | 31. <input type="checkbox"/> Effective interpersonal skills |          |
| 15. <input type="checkbox"/> Self controlled      |          |          | 32. <input type="checkbox"/> Discipline                     |          |
| 16. <input type="checkbox"/> Leadership qualities |          |          | 33. <input type="checkbox"/> Consistent                     |          |
| 17. <input type="checkbox"/> Secretive            |          |          | 34. <input type="checkbox"/> Public service oriented        |          |

35. \_\_ Low keyed
36. \_\_ Willing to cooperate
37. \_\_ Dependable
38. \_\_ Well groomed
39. \_\_ Ability to accept failures
40. \_\_ Vigilant
41. \_\_ Critical Mind
42. \_\_ Intelligent
43. \_\_ Keen Observer
44. \_\_ Courteous
45. \_\_ Expressive
46. \_\_ Good in crisis management
47. \_\_ Imaginative
48. \_\_ Resourceful
49. \_\_ Effective communication skills
50. \_\_ Clarity of thoughts
51. \_\_ Positive thinking
52. \_\_ Graceful
53. \_\_ Progressive
54. \_\_ ability to devise short cuts
55. \_\_ Quick decision making
56. \_\_ Task orientation
57. \_\_ Ability to assess
58. \_\_ Target oriented
59. \_\_ Logical
60. \_\_ Competent

**APPENDIX - D**Sample copy**CONSENT FORM**

This is to certify that I was contacted by Ms \_\_\_\_\_ to fill questionnaires necessary for completion of ph.D research requirement. I was informed by the student that this information will be used only for research being carried out in National Institute of Psychology (NIP) Quaid-i-Azam University Islamabad. I willingly provide the information.

Date \_\_\_\_\_

Occupational Group \_\_\_\_\_

Designation \_\_\_\_\_

## APPENDIX - E

PERSONALITY TRAITS ASSESSMENT SCALE (PTAS)

This scale is a part of research being carried out in National Institute of Psychology Quaid-i-Azam University, Islamabad. The primary objective of the research is to identify personality traits of executives working in various occupations/fields. You are requested to identify traits on a **five point scale** which would describe you closest to yourself. To ensure the confidentiality we do not need your name to be mentioned, however, following information is needed as part of research.

Sex \_\_\_\_\_ Education (last degree) \_\_\_\_\_ Age \_\_\_\_\_ Marital Status \_\_\_\_\_

Occupational Group \_\_\_\_\_ Designation \_\_\_\_\_

Length of Experience \_\_\_\_\_ Number of Promotions \_\_\_\_\_

Thank you very much for the cooperation.

## INSTRUCTIONS

The list below includes 45 traits. There is a blank space before each trait. Please write a number indicating how accurately that trait describes you, using the following rating scale.

<u>Inaccurate</u>			<u>Accurate</u>	
<u>Moderately</u>	<u>Very</u>	<u>Uncertain</u>	<u>Moderately</u>	<u>Very</u>
1	2	3	4	5
1. <input type="text"/> Straightforward			24. <input type="text"/> Adaptable	
2. <input type="text"/> Responsible			25. <input type="text"/> Effective interpersonal skills	
3. <input type="text"/> Dedicated			26. <input type="text"/> Disciplined	
4. <input type="text"/> Traditional			27. <input type="text"/> Consistent	
5. <input type="text"/> Anxious			28. <input type="text"/> Public service oriented	
6. <input type="text"/> Impartial			29. <input type="text"/> Willing to cooperate	
7. <input type="text"/> Efficient			30. <input type="text"/> Well groomed	
8. <input type="text"/> Upright			31. <input type="text"/> Ability to accept failures	
9. <input type="text"/> Confident			32. <input type="text"/> Vigilant	
10. <input type="text"/> Fair			33. <input type="text"/> Intelligent	
11. <input type="text"/> Adventurous			34. <input type="text"/> Keen Observer	
12. <input type="text"/> Self controlled			35. <input type="text"/> Courteous	
13. <input type="text"/> Secretive			36. <input type="text"/> Expressive	
14. <input type="text"/> Dogmatic			37. <input type="text"/> Good in crisis management	
15. <input type="text"/> Emotionally Stable			38. <input type="text"/> Imaginative	
16. <input type="text"/> Sincere			39. <input type="text"/> Effective communication skills	
17. <input type="text"/> Punctual			40. <input type="text"/> Positive thinking	
18. <input type="text"/> Tough minded			41. <input type="text"/> Graceful	
19. <input type="text"/> Patriotic			42. <input type="text"/> Ability to assess	
20. <input type="text"/> Able to appreciate others			43. <input type="text"/> Target oriented	
21. <input type="text"/> Committed			44. <input type="text"/> Logical	
22. <input type="text"/> Practical			45. <input type="text"/> Competent	
23. <input type="text"/> Frustration tolerance				

## APPENDIX – F

MINI MARKERS (MMS)

Please use this list of common human traits to describe yourself as accurately as possible. Describe yourself as you are yourself at the present time not as to wish to be in future or you perceived yourself in the past. Describe yourself as you are generally or typically as compared with other persons you know of the same sex and roughly your same age. Before each trait please tick a number indicating how accurately that trait describes you, using the following rating scale. For example:-

There is no right or wrong answer and they have nothing to do with your job:

**Very inaccurate**

**Very accurate**

<b>Bashful</b>	<b>Very inaccurate</b>	<b>Moderately inaccurate</b>	<b>Uncertain</b>	<b>Moderately accurate</b>	<b>Very accurate</b>
	<b>1</b>	<b>2</b>	<b>3</b>	<b>4</b>	<b>5</b>

The information given by you will only be used for research purposes and will not be disclosed to any other person or institution.

## INSTRUCTIONS

Please use the given list of common human traits to describe yourself as accurately as possible. Describe yourself, as you are yourself at the present time, not as you wish to be in the future.

Before each trait, please write a number indicating how accurately that trait describes you, using the following rating scale:

<u>Inaccurate</u>			<u>Accurate</u>	
<u>Very</u>	<u>Moderately</u>	<u>Uncertain</u>	<u>Moderately</u>	<u>Very</u>
1	2	3	4	5
1. __ Bashful			21. __ Moody	
2. __ Bold			22. __ Organized	
3. __ Careless			23. __ Philosophical	
4. __ Cold			24. __ Practical	
5. __ Complex			25. __ Quiet	
6. __ Cooperative			26. __ Relaxed	
7. __ Creative			27. __ Rude	
8. __ Deep			28. __ Shy	
9. __ Disorganized			29. __ Sloppy	
10. __ Efficient			30. __ Sympathetic	
11. __ Energetic			31. __ Systematic	
12. __ Envious			32. __ Talkative	
13. __ Extraverted			33. __ Temperamental	
14. __ Fretful			34. __ Touchy	
15. __ Harsh			35. __ Uncreative	
16. __ Imaginative			36. __ Unenvious	
17. __ inefficient			37. __ Un-intellectual	
18. __ Intellectual			38. __ Unsympathetic	
19. __ Jealous			39. __ Warm	
20. __ Kind			40. __ Withdrawn	

## Appendix-G

## TEST APPLICATION FORM

Name of the applicant REHANA SHUJAAT  
 Name of the Supervisor/Professor Dr. Anila Kamal  
 Institution National Institute of Psychology, Quaid-i-Azam University, Islamabad  
 Test : (year, author, title, edition, Publisher):  
40-item Mini Markex Set (Saucier, 1994).  
 Purpose: (Research, teaching) RESEARCH  
 Research/teaching topic Comparative Study of Personality Profile of Executive  
 M.Sc/M.phil/Ph.D/M.S/Diploma/Any other Ph.D working in selected  
occupations

## UNDERTAKING

This is hereby specified that the above mentioned information is correct. I applied for the above mentioned scale after appropriate research and consultations with my supervisor/Professor. I am convinced that this Test/Videos/Resource Material is very relevant to my work. I also understand that I will have to follow the copy rights requirements of the test developers and not violate the ethics of research at any moment. This work is the intellectual property of the author. No part of this test may be reproduced or photocopied or disseminate or to republish without written permission from the author. I am also under obligation to share my data and research findings with the TRC of NIP.

AK  
 Supervisor/Professor

Rehana Shujaat  
 Student

Following requirements have been completed for the test/document etc.

- Recommendation by the supervisor/ Professor
- Price/Fee/charges, (if any) \_\_\_\_\_
- Undertaking

Recommendation of the TRC Advisory Committee

TRC In charge

Recommended

Not Recommended

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 Test Resource Centre  
 National Institute of Psychology



Respectable Sir,

>

National Institute of Psychology (NIP), Quaid-azam University Islamabad Pakistan is a research organization and is contributing in research nationally and internationally. I, Rehana Shujaat, a Ph.D student of this institute is conducting the research on topic "Comparative Study of Personality Profiles of Executives in Selected Occupations" i.e., civil services occupational groups, police service, foreign service, accounts service, customs and excise, district management etc. I intend to use 40 items Mini Markers a brief version of Goldberg's Big Five Markers considering its utility in studies in similar populations. Permission to use the test only for research purpose is requested please.

>

I shall be most grateful to you.

>

regards

With

>

Shujaat (Ph. D Student)

Rehana

>

>

> Share your holiday memories for free with Windows Live™ Photos. Get started now.

--

Gerard Saucier

Associate Editor, JPSP:PPID

Professor

Department of Psychology

1227 University of Oregon

Eugene OR 97405 USA

(541) 346 4927

Fax 541-346-4911 (put my name on it clearly)

gsaucier@uoregon.edu

To make the best choice for your skin, choose Olay.

OLAY

olayForYou.ca

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Home Profile People Mail Photos More Sympatico / MSN

Search the web

Rehana  
sign out

mail

New | Reply | Reply All | Forward | Mark as | Move to |

Options

hotmail.com

(2)

Re: permission to use 40 items Mini Markers, (Big Five Markers)

From: Gerard Saucier (gsaucier@uoregon.edu)

Sent: January 1, 2009 10:38:44 AM

To: Rehana kazi (rehkazi@hotmail.com)

Dear Rehana Shujaat,

Of course you are free to use the Mini-Markers. As noted at

<http://www.uoregon.edu/~gsaucier/gsau4.htm>

they are in the public domain and so free for anyone to choose without asking.

If you do a translation of the measure into another language (perhaps Urdu?) I would be pleased to get a copy of the translation.

If you are interested in collaborating with an international project on the psychology of cultural differences, or know someone in Pakistan who is, please let me know. We have a project developing.

All the best,

Gerard Saucier

On Thu, 1 Jan 2009 09:50:34 -0500, Rehana kazi <rehkazi@hotmail.com> wrote:

>

## Appendix-H

## PROCRASTINATION SCALE (URDU VERSION)

## ہدایات

اس سوالنامہ میں کچھ بیانات درج ہیں۔ جن کا تعلق مختلف کاموں کو وقت پر کرنے اور وقت پر نہ کرنے سے ہے۔ ہر بیان کو غور سے پڑھئے اور یہ بتائیے کہ ہر بیان کس حد تک آپ کی شخصیت سے مطابقت رکھتا ہے۔ ہر بیان کے لئے چار جوابات درج ہیں۔ جو جواب آپ کے خیال میں آپ کے لئے سب سے مناسب ہے اس پر (گ) کا نشان لگائیں۔

آپ کے تعاون کا شکریہ۔

نمبر شمار	بیانات	تجرباً میری طرح (i)	کسی حد تک میری طرح (۲)	کسی حد تک میری طرح نہیں (۳)	تجرباً میری طرح نہیں (۴)
۱۔	میں بلا ضرورت کام کو مکمل کرنے میں تاخیر کرتا کرتی ہوں جبکہ وہ بہت اہم ہیں۔				
۲۔	جو کام مجھے پسند ہوں میں اُن میں تاخیر کرتا کرتی ہوں یہاں تک کہ وہ ختم ہوں۔				
۳۔	اگر کسی کام کے ختم کرنے کا وقت مقرر ہو تب ہی میں اس کی تکمیل کیلئے آخری لمحے کا انتظار کرتا کرتی ہوں۔				
۴۔	میں مشکل پیش آنے سے بھی تاخیر کرتا کرتی ہوں۔				
۵۔	میں ہر کام پر سے کرنے کی عادت کو بدلنے کی کوشش میں کمی تاخیر کرتا کرتی ہوں۔				
۶۔	میں کسی کام کو نہ کرنے کی وجہ تلاش کرتا کرتی ہوں۔				
۷۔	میں اہم وقت کو نہ صرف کرتا کرتی ہوں۔				
۸۔	مجھے وقت ضائع کرنے کی بہت عادت ہے۔				
۹۔	وقت ضائع کرنا میری عادت ہے لیکن اس سے نجات حاصل کرنے کیلئے میں کوشش کرتا کرتی۔				
۱۰۔	جب کسی کام کو کرنے میں مجھے مشکل پیش آ رہی ہو تو میں اسے تیزی کرنا چاہتی ہوں۔				
۱۱۔	میں اپنے آپ سے کہتا کہ ہر کام کو نہ کرنے کا بہتر وقت ہے لیکن پھر اس پر عمل نہیں کرتا کرتی۔				
۱۲۔	میں جب کسی کام کا منصوبہ بناتا ہوں تو اسے پورا تکمیل تک پہنچانا چاہتی ہوں۔				
۱۳۔	اگر مجھے اپنے کام میں تاخیر کرنا پسند ہے مگر بارگاہی میں کام پلٹنا شروع نہیں کرتا کرتی۔				
۱۴۔	میں وقت چھاننے کیلئے اکثر ضروری کام پلٹنی ختم کر لیتا کرتی ہوں۔				
۱۵۔	کام کو پلٹنا شروع کرنے کی اہمیت کا اندازہ نہ کرنے کے باوجود مجھے اس کو ختم کرنے میں مستعد ہوتا ہے۔				
۱۶۔	کسی کام کو مکمل پر پھرتا ہوں میری عادت نہیں ہے۔				

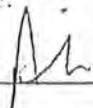
Appendix-I

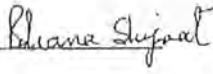
## TEST APPLICATION FORM

Name of the applicant REHANA SHUJAAT  
 Name of the Supervisor/Professor: Dr. Anila Kamal  
 Institution National Institute of Psychology, Quaid-i-Azam University, Ibd.  
 Test :( year, author, title, edition, Publisher):  
Urdu version of The Procrastination scale, (Fatimah, 2001).  
 Purpose: (Research, teaching) Research  
 Research/teaching topic Comparative Study of Personality Profile of  
 M.Sc/M.phil/Ph.D/M.S/Diploma/Any other Ph.D Executives working in  
selected occupations

**UNDERTAKING**

This is hereby specified that the above mentioned information is correct. I applied for the above mentioned scale after appropriate research and consultations with my supervisor/Professor. I am convinced that this Test/Videos/Resource Material is very relevant to my work. I also understand that I will have to follow the copy rights requirements of the test developers and not violate the ethics of research at any moment. This work is the intellectual property of the author. No part of this test may be reproduced or photocopied or disseminate or to republish without written permission from the author. I am also under obligation to share my data and research findings with the TRC of NIP.

  
 \_\_\_\_\_  
 Supervisor /Professor

  
 \_\_\_\_\_  
 Student

Following requirements have been completed for the test/document etc.

- Recommendation by the supervisor/ Professor
- Price/Fee/charges, (if any) \_\_\_\_\_
- Undertaking

TRC In charge

Recommendation of the TRC Advisory Committee

Recommended

Not Recommended

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APPENDIX-JMANAGERIAL POTENTIAL SCALE (MP) OF CPI**DIRECTIONS**

- This questionnaire contains a series of statements. Read each one, decide how you feel about it. If you agree with a statement or feel that it is true about you, answer TRUE (T). If you disagree with a statement, or feel that it is not true about you, answer FALSE (F) by putting a cross (X) on relevant option.
- Be sure to answer for every statement, even if you have to guess at some.
- You are required to answer all the questions.
- There is no right or wrong answer; your own honest opinion will be an appropriate answer.
- Test information will remain confidential and would be used only for research purposes.

<u>S.</u> <u>No.</u>		<u>True</u>	<u>False</u>
1.	I have had very peculiar and strange experiences.	T	F
2.	In most ways, a poor person is better off than a rich one.	T	F
3.	I get very nervous if I think that someone is watching me.	T	F
4.	Most people would tell a lie if they could gain by it.	T	F
5.	I take a rather serious attitude towards ethical and moral issues.	T	F
6.	I have no dread of going into a room by myself where other people have already gathered and are talking.	T	F
7.	I get pretty discouraged sometimes.	T	F
8.	I don't blame people, for trying to grab all they can get in this World.	T	F
9.	Most people will use somewhat unfair means to gain profit or an advantage rather than to lose it.	T	F
10.	I certainly feel useless at times.	T	F
11.	Teachers often expect too much work from their students.	T	F
12.	I often act on the spur of the moment without stopping to think.	T	F
13.	My way of doing things is apt to be misunderstood by others	T	F
14.	I have had more than my share of things to worry about.	T	F
15.	I am quite often not in on the gossip and talk of the group I belong to.	T	F
16.	I like to keep people guessing what I am going to do next.	T	F
17.	If given the chance I would make a good leader of people.	T	F
18.	Most people are honest chiefly through fear of being caught.	T	F

- |     |                                                                                                 |   |   |
|-----|-------------------------------------------------------------------------------------------------|---|---|
| 19. | Most people inwardly dislike putting themselves out to help other people.                       | T | F |
| 20. | People seem naturally to turn to me when decisions have to be made.                             | T | F |
| 21. | People don't need to worry about others if only they look-after themselves.                     | T | F |
| 22. | The future is too uncertain for a person to make serious plans.                                 | T | F |
| 23. | I like to talk before groups of people.                                                         | T | F |
| 24. | I am often bothered by useless thoughts which keep running through my mind.                     | T | F |
| 25. | When prices are high you can't blame people for getting all they can while the getting is good. | T | F |
| 26. | I usually feel that life is worthwhile.                                                         | T | F |
| 27. | I think most people would lie to get ahead.                                                     | T | F |
| 28. | It is hard for me to act natural when I am with new people.                                     | T | F |
| 29. | I feel that I have often been punished without cause.                                           | T | F |
| 30. | I think I am usually a leader in my group.                                                      | T | F |
| 31. | I enjoy planning things, and deciding what each person should do.                               | T | F |
| 32. | Success is a matter of will power.                                                              | T | F |
| 33. | I feel like giving up quickly when things go wrong.                                             | T | F |
| 34. | It seems that people used to have more fun than they do now.                                    | T | F |