ASSESSMENT OF LEADERSHIP POTENTIAL

IN

ARMED FORCES

ASSESSMENT OF LEADERSHIP POTENTIAL IN ARMED FORCES

BY

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But those who strive and fight
Hath He distinguished
Above those who sit (at home)
By a special reward,
Ranks specially bestowed
By him, and Forgiveness
And Mercy. For Allah is
Oft-Forgiving, Most Merciful.

Al - Quran
Surah Toba-verse, 112

Dedicated to

*To my son "**Humza**"*
Who has led *my*
life to happiness.

CONTENTS

CONTENTS

LIST OF TABLES

LIST OF ANNEXURES

Annexures

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ACKNOWLEDGEMENT

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ABSTRACT

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The study has developed a rating scale to assess the leadership potential in armed forces of Pakistan. The data has been collected from all the agencies involved in assessment of leadership potential in the country and from the officers who have practically commanded troops both in peace and war. After content analysis of the data and judges criticism 47 traits were selected for the scale. 140 military cadets were rated on these 47 traits on a five point scale. Traits rated high for Army, Navy and Airforce were separated. Traits rated high for various Arms/Branches/Corps were also separated. It was seen that the traits rated high for a particular arm or branch go in accordance with job requirements of that particular arm or branch. The alpha coefficient of the scale was 0.973 and all the traits were highly correlated with the total at a significance level of .001. Varimax Rotation of the data represented four factors. The titles given to them based on factor loading were sociability, dominance, professional competence and dynamism. The research has not only identified the traits desired for various services and their branches but has also looked for their implications and practical uses.

INTRODUCTION

INTRODUCTION

Most of us believe that we have a pretty good idea of what leadership is but we will have hard time articulating a precise definition. We know it has something to do with what we want, but beyond that, our verbalization grows a little vague. Various books cover the subject but very few offer useful insights about the meaning of leadership. Military Leadership bears the same fate and its various definitions do not clearly explain the real meaning of this multifacet concept.

The researches conducted on military leadership have relied mainly on gathering various physical and mental capabilities of great military generals. If we review the literature on military leadership, most of it is based on the biographies and auto-biographies of great military leaders. Army officers have written books in which they have discussed those qualitities and capabilites of an officer who can lead their men to success. Reviewing Field Marshal Montgomery's book "The path to leadership" or General Clarke's "Guide lines for the leader and the commander", Major Chandar's "The art of military leadership" General Attique's "Junior Leaders" and General Musa's "Jawan to General" we will find that all of them have discussed the traits essential for a military leader when he is himself facing or has to prepare his men to face the iron and fire of war.

Military research journals such as Military Review, Army Infantry, US Army Field Artillery journal, Armour, International Defence Review and others mostly contain review articles on leadership based on the same pardigm of discussing the capabilites essential for a military leader. Though Pakistan Army publishes two defence journals namely Pakistan Army Journal and Defence Review but research on military leadership is very sparse and is seldom published in these journals. But this does not mean that military leadership is not a problem in Pakistan beacause every officer in Pakistan army has to command soldiers at various levels both in war and peace. Hence leadership is a very important aspects of army life.

Inter Services Selection Board selects the candidates who possess basic leadership potential in them. The selected lot is sent to the academies for Army, Navy and Airforce. Here the cadets are given the rigorous military training and are also trained to command and control the troops. Thus leadership training is the foremost aspect of military academies in Pakistan. They also have devised methods for assessing various leadership traits throughout the training tenure of a cadet. Though their system of assessment is being validated with time and experience of the instructors and administrators of the academies but a need remains to look for some scientific and precise method for assessing various leadership traits in leaders of the future armed forces. Along with the assessment instrument it is necessary to

traits which a young military officer should possess, and the traits which are required for various arms/corps/branches of Pakistani armed forces.

Present study was framed to develop a rating scale which can be helpful in assesing the leadership potential in military cadets and also to identify the overall leadership traits present in Pakistani armed forces as a whole. It also identifies the traits required for Army, Navy and Airforce separately. Further it also divides the traits required of various arms/corps/ branches of Pakistani armed forces. The results of the research are also indicative of those broad areas in which Pakistani military leadership is divided. Before discussing the actual research let's review the literature on leadership to get a clear understanding about this multifacet concept.

The study of leadership is an ancient discipline. The ancient Egyptians attributed qualities of divine in their king. They said him, "Authoritative utterness in thy mouth, perception is in thy heart, and thy tongue is the shrine of justice". The Greeks demanded of their qualities of authority, discrimination, and just behaviour (Saracheck, 1968). The patterns of behaviour regarded as acceptable in leaders has differed from time to time and from one culture to another.

A scholarly highlight of the Renaissance was Machiavellis "The Prince" still widely quoted as a guide to effective leadership of all sorts (Christie and Geis,1970).

When we look at various anthropological reports of various primitive groups in Australia, Fiji, New Guinea, the Congo and elsewhere, it is found that leadership occurs universally among all people regardless of culture. (Bass, 1981). Parenthood makes for ready-made patterns of leadership. Hence leadership is one of the most observed phenomena on earth.

DEFINITION

As leadership is one of the most observed phenomenon on earth but it is least understood. The term "Leadership" means different things to different people. As is often the case when a word from the common vocabulary is incorporated into the technical vocabulary of a scientific discipline, leadership has not been precisely redefined and still carries extraneous connotations that create ambiguity of meaning (Janda, 1960). Further confusion is caused by the use of other imprecise terms such as power, authority, management, administration, control and supervision to describe the same phenomena. Bennis in 1957 surveyed the leadership literature and concluded, "Always, it seems, the concept of leadership eludes us or turns up in another form to taunt

us again with its slipperiness and complexity. So we have invented an endless proliferation of terms to deal with it... and still the concept is not sufficiently defined" (Bass,1981).

Researchers usually define leadership according to their individual perspective and the aspect of the phenomenon of most interest to them. After a comprehensive review of leadership literature, Stogdill (1974) concluded that "there are almost as many definitions of leadership as there are persons who have attempted to define" (p. 259). Leadership has been defined in terms of individual traits, behaviour, influence over other people, interaction patterns, role relationships, occupation of an administrative position and perception of others, and also regarding legitimacy of influence. Leadership in the present decade is being defined as "Leadership is the influential increment over and above mechanical compliance with the routine directives of the organization (Katz & Kahn, 1978). "Leadership is the relationship between two or more people in which one attempts to influence the other toward the accomplishment of some goal or goals" (Szilagyi & Wallace, 1980).

In research, the operational definition of leadership will depend to a great extent or the purpose of researcher. The purpose may be to identify leaders, to train them, to discover what they do, to determine how they are selected, or to compare effective and ineffective leaders. As Karmell (1978)

notes, "it is consequently very difficult to settle on a single definition of leadership that is general enough to serve as an operationalization of the variables.

THEORIES AND MODELS OF LEADERSHIP

Theories of leadership attempt to explain either the factors involved in emergence of leadership or the nature of leadership and its consequences. Models are replicas or reconstructions of the realities. Both are useful in defining, development and application of leadership. A brief summary of those theories and models given from time to time is presented which clarify the picture of military leadership.

(1) GREAT MAN THEORIES

For many, history was shaped by the leadership of great men. Without Moses, the Jews would have remained in Egypt. Without Churchill, the British would have given up in 1940. The Russian Revolution would have taken a different course if Lenin had been hanged by the old regime instead of being exiled. For the philosophers, such as Nietzsche, a sudden decision by a great man could redetermine history. To William James, the mutations of society were due to great men. They initiated movement and prevented

others from leading society in another direction.

Influenced by Galton's study of the hereditary background of great men, several early theorists attempted to explain leadership on the basis of inheritance. Woods (1913) studied fourteen nations over periods of five to ten centuries. The conditions of each regions were found to approximate the ruler's capabilities. Wiggam (1981) advanced the proposition that the survival of the fittest and intermarriage among them produces an aristocratic class differing biologically from the lower classes. Thus, an adequate supply of superior leaders depends upon a proportionately high birth rate among the abler classes.

(2) TRAIT THEORIES

If the leader is endowed with superior qualities that differentiate him from his followers, it should be possible to identify these qualities. This assumption gave rise to the trait theories of leadership. Bird (1940) compiled a list of seventy-nine such traits from twenty psychologically oriented studies. A similar work was compiled by Smith and Kruger (1933) for educators and by Jenkins (1947) for understanding military leadership (Stogdill, 1974). As mentioned earliear most of military experts have framed their books and articles on the paradigm of trait theory.

(3) ENVIRONMENTAL THEORIES

Many early theorists advanced the view that the emergence of a great leader is a result of time, place and circumstances.

What the great men did was automatically right to do because he fulfilled what was needed. For Herbert Spencer, societies evolved in a uniform, gradual, progressive manner. No great man could change the course of this development. For Engels, Marx, and their successors, economic-necessity made history. Obstacles to expanding production must be cleared. The greater the obstacles, the greater the need and the more capable must be the leader. But who he or she turns out to be is irrelevant (Hook, 1943).

Schneider (1937) found that the number of great military leaders in England was proportional to the number of conflicts in which the nation engaged. Thus the social situation was related to the achievement of leadership. And it does not reside in a person but is a function of the occasion.

(3) PERSONAL SITUATIONAL THEORIES

Both the great-man theorists and the situational theorists attempted to explain leadership as an effect of a single set of forces. The interactive effects

of individual and situational factors were overlooked. Westburgh (1931) suggested that the study of leadership must include the affective, intellectual, and action traits of the individual as well as the specific conditions under which the individual operates. Case (1933) maintained that leadership is produced by the conjunction of three factors: (1) the personality traits of the leader; (2) the nature of the group and of its members; and (3) the event (change or problem) confronting the group.

Bass (1966) argued that the military generals who have won wars not only had personal qualities but also knew their men under command and were fully aware of the events.

(4) PSYCHOANALYTIC THEORIES

Freud himself (1922) as well as many other psychoanalytically oriented writers such as Frank (1939), Fromm (1941), Erikson (1964), and Levinson (1970) addressed the leadership issue at length. They see the leader as father figure, as source of love or fear, as embodiment of the superego, as emotional outlet for followers frustration and destructive aggression, as in need to distribute love and affection fairly among followers (Wolman, 1971).

Psychoanalysis has had a marked influence on psychohistorians trying to understand adult political and military leaders in terms of their childhood deprivations, cultural milieu, and relationship with parental authority, and the psychodynamic needs they fulfil among their followers. Most widely quoted example by them of a military leader is that of *Hitler*. Psychoanalytical theory was also used by Hummel (1975) and Vries (1977) to show how the interaction of leader personalities and situations is dramatized in times of crises (Yukl, 1981).

(5) INTERACTION-EXPECTATION THEORIES

(a) **Leader role theory:** Homans (1950) developed a theory of a leadership role using three basic variables: action, interaction, and sentiments. The higher the rank of the persons within the group, the more nearly their activities conform to the group norms, the wider their range of interactions, and the larger the number of group members for whom they originate interactions. In Hemphill's (1954) theory, leadership arises in situations in which component parts of group tasks are dependently related to one another and to the solution of a common problem among group members. His theory emerges from the differentiation of structure-in-interaction which permits prediction of future interaction activity with an accuracy exceeding chance. This theory is also an explanation of Islamic

concept of 'Jehad' in which the whole fighting group is bounded as brothers and they fight for a single cause that is Islam.

(b) **Role Attainment Theory:** Stogdill (1959) developed an expectancy-reinforcement theory of role attainment. As group members interact and engage in mutual task performance, they reinforce the expectation that each will continue to act and interact in accord with his previous performance. The leadership potential of any given member is defined by the extent to which he initiates and maintains structure in interaction and expectation. As cohesivness is the most important Ingredient of military forces hence military leaders are a continued source of reinforcement for their soilders.

(c) **Reinforced Change Theory:** In a theory proposed by Bass (1960), leadership is the observed effort of one member to change the motivation and understanding of other members or to change their behaviour. If a member is successful, a change is observed in other members accepting leadership. Motivation is changed by changing the expectations of reward or punishment. Leaders acquire their position by virtue of their perceived ability to reinforce the behaviour of group members by granting or denying rewards or punishments. Since group effectiveness is evaluated in terms of the group's ability to reward its members, leaders are valued when they can enable a group to provide expected rewards. War medals which are recommended by

the commanders do play a vital role in making a soilder fight courageously.

(d) **Path Goal Theory:** The theory suggests that the leader can determine the follower's perception by the abundance of rewards available to him or her. The leader can also determine the follower's perception of the paths (behaviours) through which rewards may be attained. As popularized by House (1971), the path goal theory of leadership emphasis that leaders enhance the psychological states, that is, arouse subordinates to perform and achieve satisfaction from the job to be done. The leaders clarify the goals of their subordinates as well as the paths to those goals. In military set up motivational speeches which clarify the goal and its path do play a vital role in the win of a war.

(6) HUMANISTIC THEORIES

The theories of Argyris, Blake and Mouton, Likert and Mc Gregor are concerned with development of effective and cohesive organizations (Bass, 1981). They believe that human being is by nature a motivated organism. The organization is by nature structured and controlled. It is the function of leadership to modify the organization in order to provide freedom for individuals to realize their own motivational potential for fulfilment of their own needs and at the same time contribute toward the accomplishment of

organizational goals. As military organization are highly structured and controlled hence the leader has to provide freedom to soilders, for realizing their motivational potential.

(7) BEHAVIORAL THEORIES

Mawhinney and Ford (1977) reinterpreted path-goal theory in terms of operant conditioning. Scott (1977) saw the need to replace conceiving of leadership as due to influence or persuasion with an analysis of the observable leader behaviours that change the behaviour of subordinates. Emphasized behaviours were reinforced and made rewards contingent. It was determined that leader's positive reward behaviour will increase a subordinate performance. This theory play a major role in military set up not only in war but in its functioning in peace time also.

(8) PERCEPTUAL AND COGNITIVE THEORIES

(a) **Attribution Theory:** Each member of a group is seen to have his or her own theory of leadership. If we want to understand a leader's behaviour we must begin by going inside the leader's head to find out what he or she is thinking about the situation in which he leads (Pfeffer, 1977). We observe the behaviour of leaders and infer the causes of these behaviour to be various

personal traits or external constraints if these causes match the observers naive assumption about what leader should do then leadership is used to describe the person observed (Calder, 1977). Attribution theory is clearly examplified when we read the biographies of great military leaders.

(b) **Systems Analysis:** Leaders and their followers can be conceived as open social systems. The systems are open to the outside environment and they are sensitive to the constraints imposed on them by the outside. The system imports energy (power) and information from the outside, transforms it, and exports goods and services.

The Bass-Valenzi model (Bass & Valeuzi, 1974) proposes that whether leaders are directive, negotiative, consultive, participative, or delegative depends on their perceptions of the system's inputs and within systems relations. The leader and his or her immediate work group form an open system of inputs (organizational, tasks, and work group variables); within-system relations (power and information differentials) and outputs (productivity and satisfaction).

(c) **Rational-Deductive Approach:** Vroom and Yetton (1974) posed ten questions which leaders should ask themselves in deciding whether to be directive or participative in decision making with their subordinates and

whether to do so one at a time with individual subordinates or with the whole group all at once. Essentially, they argued that supervisors ought to be directive when they are confident that they know what needs to be done and when their subordinates do not have this knowledge. Furthermore, Vroom and Yetton suggested that in this situation a decision made by the supervisor will be accepted by subordinates. On the contrary if the leader lacks insight to the problem he should be participative. Military leader are mostly directive because they have good understanding of their mission before operationalizing in the field.

ASSESSMENT OF LEADERSHIP POTENTIAL

Assessing leaders is as old as man first started living in groups. In the stone age the person who was more successful in killing the beast of prey was made the head or leader of the clan. When possession of land started the person who could fight boldly with the enemies was the leader. Similarly when agriculture was thought to be the feeding institution then the man with more lands and cattle was the leader. With all our industrial revolutions and political changes still the man who either possess a large amount of goodies or wealth is a leader or a man with extra ordinary talent and capabilities rises to lead men.

Formal research on leadership started in early 30s. In 1933 Smith and Krueger surveyed the literature on leadership in general and Jenkins in 1947 studied the development of leadership methodology especially related to military situations (Stogdill, 1974). Recent researches have been compiled by Bass (1981) and Yukl (1981). Hunt and Blair (1988) have collected the literature on leadership on the future battlefield.

Reviewing the literature on the assessment of leadership potential, following major methods come forward for the identification and assessment of the personal characteristics of leaders.

(a) **Observation and Time Sampling of Behaviour in Group Situations:** In these studies the behaviour of two or more individuals is observed in situations which permit the emergence of leadership activities. The situation may be highly structured in advance. The observational studies which have yielded the most relevant data on leadership are those of Chevaleva-Ianovskaia (1929) and the pioneering investigation of Terman (1904) Henning (1929) has devised a number of ingenious experimental situations for the study of leadership in pairs of children, but the investigations in which these methods are employed have proved disappointingly unproductive (Bass, 1981).

(b) **Choice of Associates (Voting, Naming, Ranking,Sociometric):** The usual procedure in these studies, most of which use children or students as subjects, is to ask the members of a group to name the persons whom they would prefer as leaders, and, in some, cases to describe the characteristics of each nominee which make him desirable as a leader. Sociometry is an extension of this method which involves the construction of a "Socio-gram" or chart showing graphically the preference relationship of each member to every other member of the group.

(c) **Nomination by Qualified Observer:** In these studies, leaders are named by teachers, club leaders, or other adult observers who are regarded as being in a position to identify the leaders in the groups selected for study. The leaders are compared with the members of control groups.

(d) **Selection of Persons Occupying Positions of Leadership:** Leadership in these studies is regarded as synonymous with holding office or some position of responsibility. The majority of the studies use high school or college subjects, and define leadership as holding some office such as president of student body, president of a fraternity or society, captain of athletic or debating team, chairman of a club, and the like.

(e) **Analysis of Biographical and Case History Data:** Biograp case histories are studied to point out the leadership traits and qualities.

(f)The Listing of Traits Considered Essential to Leadership: Trait theorists such as Allport, Cattel and Eysenck have proposed that traits are the fundamental building blocks of human personality. Personologists consider the trait-adjectives as a good substitute of personality questionnaires (Agha, 1991). Many items of personality questionnaires are only elaboration of what can be expressed in a word conversely adjectives are at times condensation of possible sentences. These sentences or questions have all the advantages of providing context but at cost of loosing generality of use. The generality of use was probably the major consideration in the development of most widely used adjective check list (Gough and Heilbran, 1980) originally developed for use in the research program of the Institute of Personality Assessment and Research. Adjective check list (ACL) developed its military leadership scale using military cadets, midshipman and Italian Army draftees. The scale was then validated or Army and Airforce Officers.

The high-scores on ACL, military leadership scale is oriented toward duties and obligations, hold fast to an agreed-upon line of action, and works hard to see that consensual goals are attained. He or she exerts a stead flying influence on others, values good organization and planning. The low-score is

much less convinced of the worth of unremitting effort and self-discipline, enjoys change and variety and like to probe limits to see if the rules can be bent of broken.

The use of traits to determine a leader can be traced back to the ancient Greeks and Romans who believed that leaders are born, not made. This "Great man" theory of leadership said that a person was born either with or without necessary traits for leadership (Luthan, 1977). This theory was most extensively applied when military leadership was studied. Starting from listing down the traits of Alexander, Mohammed Bin Qasim, Napoleon, Babar and many other great military leaders of the world, systematic studies on military leadership traits are reported in the late 40s (Bass, 1981).

Military academies in Pakistan also use list of traits to assess leadership potential in the cadets. Each cadet before commissioning has to obtain an optimum score on these traits. Traits on which a cadet is weak are worked upon and enhanced according to the job requirement of the service he is tipped for.

Various supplementary measures are also employed in order to determine the traits associated with leadership. Frequently used tests in various researches are listed below:-

a) Standardized tests.

1. Intelligence test.

2. Personality test.

3. Intelligence and Personality tests.

b) Questionnaires.

c) Rating Scales.

d) Interviews.

e) Factor Analysis.

In the present study the leadership potential of military cadets was rated by the their platoon/division/flight commanders (who had supervised them for at least two years) on a list of adjective traits. The adjective traits of the present study are studied with the help of a five point scale.This scale was initially developed for attitude measurement (Likert, 1932). Usually a 1 to 5 scale of response was used and subjects were asked to check whether they strongly agree, agree, undecided, disagree or strongly disagree with a statement. The responses were weighted as 1-2-3-4-5 or 5-4-3-2-1. Apart from attitude measurement five point scale has also been successfully used for adjective trait measurements (Nunnally, 1978). Many studies on personal concepts, self-description, and other issues in social psychology have been and are being studied with the help of this scale (Edwards, 1970).

MILITARY LEADERSHIP

Leadership is the most vital aspect in the working of military machine. Command is like a motor nervous system for armed forces. As nervous system carries action all the way down from the brain through the lower nerve-centres to the muscles, so command proceeds from the "commander in chief" through a succession of commanding officers down to the soldiers who finally execute the actions. As discipline is one of the major qualities of armed forces, hence it is easier for a leader to execute his orders and the subordinates are also well disciplined to obey them. This aspect on one hand facilitates a smooth functioning of the military machinery but on the other it makes the leader over burdened with a lot of responsibility. One wrong order by him can create a big chaos.

The battlefield of the future is predicted to be one of enormous destruction, resulting in great confusion and high levels of fear among all those involved. In that scenario, conventional weapons have become far more lethal, and the possibility of chemical and tactical nuclear warfare is very real. Electronic warfare may make communication between units in the field and their commanders at headquarters impossible. Even attempts to communicate may result in destruction from weapon systems that lock on to radio signals. Because of night fighting capabilities, soldiers may be called

upon to fight continually with little or no rest. Rear areas, normally secure, are now likely to be attacked effectively due to unclear battlelines with both sides operating behind each other's lines with substantial forces. These factors were exemplified on ground in the recent "Gulf Crisis".

In outline form, these are some of the key characteristics which will make the future battlefield different from anything previously encountered. An understanding of these key characteristics is critical for current and future planning. So, too, is an understanding of their implications for soldiers, and their commanders who must lead them and manage their activities and resources, and for the Army organization which must be designed and structured to function under these turbulent circumstances.

One of the most challenging problems is preparing for the future battlefield and beyond is that of assuring the availability of capable leaders, who will occupy the key command and staff positions. Since these officers will have a major responsibility for the organization and direction of the future defense force, it is crucial that they be as well prepared as possible. Unfortunately, we do not have as yet a clear understanding of what their jobs and the skills needed to perform them effectively will be. We can, however, draw from available literature on current job and skill requirements for senior leaders in planning the development of senior leaders for the future army, and

we can take advantage of past research on this topic in the planning of future research. We do not expect future requirements to be the same as current requirements, but knowledge of the latter can contribute to our examination of the former. (It can, for example, serve as a framework or starting point for identifying crucial variables, highlighting deficiencies, and guiding us in the questions we ask).

A great deal has been written on what leaders do or should do. Although some of this is based on empirical data, usually drawn from questionnaires or interviews, most of it is drawn from personal experiences and observations of a nonsystematic nature. In his annotated bibliography on the subject, Kimmel (1981) identified sixty-eight contributions describing the functions and role requirements of senior leaders, only seven of which dealt with the military. Of the seven military contributions, four were research efforts, two were personal opinion essays, and one serves as the major doctrinal statement of the functions, skills and role requirements of executive-level army leaders.This and many other contributions on leadership reflect that research on military leadership is less quoted. One of the reasons for this may be that most armed forces organizations keep their research work as confidential.

Use of psychological tests in armed forces can be traced back to the period between the world wars when soldiers and officers were selected with the help of Army Alpha and Beta tests. Since then many tests were prepared for selection and recruitment of soldiers and officers in the armed forces. Formal research pertaining to military leadership in relation to selected intellectual factors was by Marks, Guilford and Merrifield in 1959. Since then most research done mainly covers the intellectual aspect of the military leaders. (Albrecht, Glaser and Marks, 1964; Stogdill, 1974; Bass; 1981). Personality aspects of leadership specially in military setting gained importance with the development of various personality scales. Most extensively used scale for selection, training and sorting of leaders in armed forces of America and most countries of Europe was MMPI. (Abramson, 1945; Goorney, 1970; Bloom, 1977; Butcher et al, 1990). Other methods of assessing traits and skills include projective tests and situational tests. TAT and WAT are the most popular asessment instruments for British, Indian and Pakistani armed forces.

In situational tests, leaderless group discussion and progressive group tasks are presented to test the leadership capabilities of candidates who apply for selection as military officers in Pakistan, Eygpt, Korea and Turkey.

Assessment and classification of leader in military settings have been dominated by traits and skills approach (Yukl, 1981). Military leaders are selected if they possess certain specified traits and then sorted into various branches of armed forces according to the skills or traits required for that particular branch.

PAKISTAN ARMED FORCES

Pakistan army on independence inherited approximately 200,000 Muslim soldiers, with a very few officers (Riza, 1989). The role assigned to it was:

1) To prevent aggression, to plan for defence and to provide a frame work for expansion in the event of attack by a minor or major power.
2) Their equipment and training must be of the standard required for war against a first class enemy.
3) The administrative layout of all bases and installations must also be planned and carried out with regard to the needs of expansion a modern developments. (Riza, 1989).

Within period of two years, Pakistan military forces reorganized them, and set up their headquarters at Rawalpindi, Karachi and Peshawar. Each

military force i.e Army, Navy and Airforce divided men into various arms/branches/corps to meet the requirements of war situation. After independence Pakistani armed forces have fought three major wars and at present they are still fighting on the worlds highest battle ground Sia-Cheen. In all these clashes the enemy remained the same i.e. India.

Now Pakistani armed forces are fully equipped with the latest arms. Their soldiers and officers are trained in the country as well as qualified in various war courses from abroad. They are kept abreast with the latest changes in technology and given the latest professional skill. They are also sent for field exercises every year where they have to exercise an actual war situation, test their equipment and show their professional, technical and leadership skills on ground.

Pakistan army is mainly divided into following branches:

1. Infantry
2. Artillery
3. Signal
4. Air defence.
5. Ordinance
6. Army Service Corps (ASC)
7. Engineering
8. Armoured corps

Pakistan Navy is mainly composed of the following branches:

1. Operations.
2. Engineering and Electrical.
3. Supply and Services.

Pakistan Air force comprises of mainly two branches:

1. General Duty Pilot (GDP).
2. Cadet of Aeronautical Engineer (CAE).

Apart from these certain other branches are medical, psychologist, aviation, administration, education and others but they are the supporting branches and usually do not take part in the actual combat. Leadership is the most vital ingredient of all the branches of Pakitani armed forces which play an active role in the war. Each officer has to command soldiers, his leadership capabilities are not only required in war but in peace as well because he has to keep his platoon, company or unit equally functioning and alert in adverse geographical conditions, because units are usually located away from cities in deserted areas or near the border areas.

Selection of military officers in Army, Navy, and Airforce have more or less same procedure. Candidates are initially recruited by their respective selection centres. Then their suitability as military officers is gauged by the Inter Services Selection Board (ISSB) and the selected lot is sent to the

respective academies for which a candidate had applied. Both in ISSB and the academies the future military officers are judged for their leadership potential on a set of traits which are measured on five, seven or nine point scale. Though minor changes according to the job requirements have been incorporated in assessment systems. But a need remains first to identify all those traits required of a Pakistani military leader. Then to classify the traits in accordance with the service in general and arms/branches/corps in particular.It is also important to find out the areas comprising leadership and develop a scale based on these areas to measure leadership potential in relatively junior officers (Lieutenant to Major) in Pakistani armed forces.

AIMS AND OBJECTIVES OF THE STUDY

1. To list the traits/characteristics important for a Pakistani military officers after the analysis of the data collected from the sources who are involved in either assessment of leadership or have themselves been military leaders both in war and peace.
2. To rate the military cadets of the three services on the list of traits prepared and to find out the traits which are rated high in armed forces in general.
3. To identify those traits which differntiate between the cadets of the three forces.
4. To find out the traits which are rated high or low for a particular arms/branch/corps of Army, Navy, or Airforce.
5. To statistically analyse the data through factor analysis and get those factors which contribute to the concept of leadership in armed forces.

This study was undertaken in order to assess military cadets to obtain the essential leadership traits required for a military officer. It is expected to help in revising and updating the present Officer Like Qualities (OLQ) assessment system in the academies. The study was also undertaken to indicate the essential traits required for Army, Navy or Airforce and those required for particular arms/branch/corps of the three services. It also

indicates the broader areas in which military leadership is divided which can be basis for future studies on leadership.

The study can also be replicated to find out the leadership potential of the selected candidates for civil services and traits essential for various cadres can also be determined.

Above all this study will be a basis for construction of an objective psychological instrument for the assessment of leadership potential in Pakistani armed forces.

METHODOLOGY

METHODOLOGY

Phase I

In the first phase a list of traits/ characteristics/ qualities possessed by a military officer was prepared by collecting data from the following sources:

a) Books, research articles and published papers on leadership, and the organizations where leadership is assessed including, Inter Services Selection Board (ISSB), Pakistan Military Academy (PMA), Pakistan Naval Academy (PNA), Pakistan Air Force Academy (PAF), US Marine Corps, RMC Canada, RAF College, US Army, BRNC (Dartmouth).

b) 90 military cadets selected at random 50 from PMA, 20 from PNA and 20 from PAF academy were asked to list the traits or characteristics present in their Platoon/Division/Flight Commander.

c) 40 Platoon/Division/Flight commanders, 20 from PMA, 10 each from PNA and PAF were selected at random and asked to enlist the leadership qualities which they consider as prerequisite for a military officer.

d) 40 serving military officers with 8-20 years of commissioned service, 20 from army, 10 each from navy and air force were also asked to enlist the leadership qualities they thought are prerequisite for a military officer.

e) Nine senior military officers five from army, two from navy and two from PAF who had actually taken part in the 1965, 1971 and Sia Cheen wars were asked to enlist those qualities which should be present in a military officer while in actual combat with the enemy.

A careful content analysis of the traits, qualities and characteristics generated by the above mentioned sources was carried out. Those traits qualities and characteristics of a leader which were common in the selection systems, or were enlisted by more than five respondents of a particular category were taken and a final list of 73 traits was prepared. (Attached as Annexure A)

The list of 73 traits was again given to 10 judges,out of which 6 were professional psychologists in the Armed Forces and 4 were psychologists at the National Institute of Psychology having interest in studying and assessing leadership. These judges were given the instructions as indented in Annexure 'L'.

After the judges analysis those traits which were not clear, did not conveyed proper meaning or not properly worded were either abundant, reworded or made more meaningful. Those traits which conveyed the same meaning or sense were also pinned up. Finally a list of 47 trait adjectives was prepared keeping in view the judges preference and criticism (Annexure B). These were thought to be the traits/characteristics possessed by a military leader (relatively a junior officer Lt. to Maj. or equivalent in other forces) both in peace and war.

Phase II

SUBJECTS:

A total of 140 subjects (Military Cadets of final term) were randomly selected. Out of these 70 were from Pakistan Military Academy (PMA), 30 from Pakistan Naval Academy (PNA) Karachi and 40 from Pakistan Air Force (PAF) academy Risalpur.

Military cadets after being selected by Inter Services Selection Board are sent to the respective academies for further training. Where apart from their educational and professional training they are groomed with an objective that they will be the future leaders in the armed forces both in war and peace. Those cadets of the final term were selected in the study who were being

passed out within 10-20 days after their assessment for the study was carried out.

Random selection of the cadets was done by writing the names of all the cadets of final term in a particular academy on chits and then picking out the required number of subjects from the basket containing the chits. List of the names of the randomly selected subjects alongwith their cadet number and respective platoon/division/flight was prepared.

INSTRUMENT

Instrument of the study consisted of a list of trait adjectives prepared in the first phase (Annexure B). Each item of the list was placed on a five point scale so that each trait possessed by the subject cadet was measured with the help of a five point scale.

PROCEDURE

After the random selection of cadets from an academy, their platoon/division/flight commanders were identified and contacted. They were given the instructions (Annexure, M) and requested to judge the cadet indicated on the instruction sheet.

RESULTS

RESULTS

Statistical Package for Social Sciences (SPSS) was used for analysis of the results. They were analyzed as follows.

1) Mean score and standard deviation of each trait for the total sample was calculated.

2 Mean score and standard deviation of each trait for a particular force (Army, Navy, Airforce) was calculated.

3) Arms/branch/corps for each force was tabulated against all the traits.

4) Item total correlation was computed.

5) Alpha- Coefficient was computed

6) Data was factor analyzed using Principal Components Analysis (PCA), followed by Varimax Rotation (Kaiser, 1958; Kerlinger, 1986) The appropriate number of factors to be rotated was determined through an examination of the Eigen value pattern (Cattell, 1966).

Analysis 1 indicated those traits which were rated high by the Platoon/Division/ Flight commanders in the military cadets. Out of 47 traits 31 were rated high with mean 3.50 and above standard deviation less than 1.00. (Annexure. C.).

Analysis 2 indicated those traits which were rated high for a particular force. 23 traits were rated high for Army, 17 for Airforce and 12 for Navy. List of the traits which had mean 3.50 and above standard deviation less than 1.00 for a particular force are attached as Annexure D, E & F.

In Analysis 3 all the traits were tabulated against the arm/branch/corps of a particular force for which a cadet was recommended. In army they were recommended for eight branches, Naval cadets for three and Airforce cadets for two. Arms/branches/corps for which the cadets were recommended along with the traits which rate high for each category are attached as Annexure G, H & J.

Analysis 4 is an indicative of the item-total correlation of the scale. All the traits were highly correlated from $r = 0.42$ to 0.77 and all were significant at .001 level. (Annexure K.).

The alpha-coefficient computed in analysis No.5 was 0.973.

When the data was analysed with PCA (Table 1) the results indicated that all the variables loaded high on a single factor which indicates that this scale measures a single composite construct.

When the data was subjected to Varimax Rotation. First four factors had factor loadings of more then 0.40. These factors were considered as valid in accordance with Cliff and Hamburger recommendations on standard error of factor loadings (Cliff and Hamburger, 1967). The factors alongwith the variables and their factor loadings are given in Table-4.

The titles given to these factors on the basis of factor loadings could be:

FACTOR 1 = SOCIABILITY

FACTOR 2 = DOMINANCE

FACTOR 3 = PROFESSIONAL COMPETENCE

FACTOR 4 = DYNAMISM

Table 3, 4, 5, & 6 represent the cluster of traits in the above mentioned factors with respect to the services and their arms/branches/corps. Traits mean and standard deviation are also shown.

Table —1

Factor Loading of First Four Factors After PCA

Item No.	Variables	Factor Loadings F1	F2	F3	F4
1.	Smart Phy. Appearance	.439	.382	.299	.031
2	Energetic	.590	.339	.409	-.131
3.	Knowledgeable	.685	.225	-.405	-.159
4.	Insightful	.695	.284	-.360	-.205
5.	Communicative	.660	.360	-.273	.192
6.	Original	.730	.163	-.169	.185
7.	Consistent	.719	.356	-.033	.271
8.	Extrovert	.651	.399	-.112	.135
9.	Dominant	.663	.424	.076	.184
10.	Possesses Initiative	.688	.393	.128	.034
11.	Persistent	.642	.180	.077	-.087
12.	Aggressive	.534	.328	.337	-.107
13.	Trust Worthy	.625	-.280	.309	-.033
14.	Loyal / Sincere	.639	-.398	.316	.114
15.	Responsible	.711	-.223	-.006	-.078
16.	Technically Skillful	.686	.020	-.267	-.221
17.	Socially Skillful	.707	.155	-.235	.130
18.	Careful	.670	-.256	-.082	-.223
19.	Morally Courageous	.761	-.273	.135	-.027
20.	Phy .Courageous	.693	.060	.426	-.152
21.	Decisive	.792	.078	.010	-.061
22.	Task Oriented	.740	-.097	-.041	-.235
23.	Preserving	.714	-.015	-.107	-.374
24.	Phy. Strong	.569	.166	.485	-.338
25.	Emotional Stability	.648	-.108	.233	.280
26.	Open Minded	.719	-.111	.254	.195
27.	Tolerant / Patient	.693	-.222	.073	.393
28.	Desirous to Excel	.690	-.110	-.132	-.104
29.	Self - Assured	.757	-.024	-.133	-.074
30.	Caring	.737	-.100	-.113	.193
31.	Adventurous	.604	.259	.215	-.162
32.	Lively	.736	.299	-.044	.225
33.	Daring / Bold	.709	.304	.168	.167
34.	Good Planner	.784	.048	-.146	-.113
35.	Effective	.705	.108	.026	-.140
36.	Humble	.587	-.495	.061	.146
37.	Disciplined	.712	-.473	.079	.079
38.	Considerate	.699	-.379	-.054	-.054
39.	Hard Worker	.706	-.262	-.113	-.340
40.	Honest	.644	-.345	-.131	.230
41.	Professionally Competent	.656	-.076	-.204	-.273
42.	Religious	.608	-.448	-.001	-.045
43.	Patriot	.649	-.247	.136	.158
44.	Optimistic	.697	.046	-.143	.021
45.	Cheerful / Humorous	.561	.124	-.207	.304
46.	Practical	.736	-.022	-.229	.054
47.	Cooperative	.619	-.386	-.105	.239
	Percent of Total variance	45.8	7.3	4.5	.3.6

Table—2

FACTOR LOADINGS AFTER VARIMAX ROTATION

Factor 1	a	Factor 2	a	Factor 3	a	Factor 4	a
Trust worthy	.633	Communicative	.782	Knowledgeable	.570	Smart Physical Appearance	.497
Loyal/Sincere	.795	Original	.659	Insightful	.592	Energetic	.719
Responsible	.628	Confident	.755	Technically skillful	.676	Aggressive	.427
Socially skillful	.612	Extrovert	.665	Careful	.571	Physically courageous	.711
Morally courageous	.616	Dominant	.678	Task oriented	.566	Physically strong	.762
Emotionally stable	.447	Possesses Initiative	.587	Persevering	.693	Adventurous	.647
Open-minded	.470	Decisive	.443	Self-Assured	.514		
Tolerant/Patient	.589	Lively	.679	Good Planner	.532		
Desirous to excel	.460	Daring/Bold	.689	Effective	.443		
Caring	.584	Optimistic	.438	Hard worker	.651		
Disciplined	.707	Good Planner	.434	Practical	.520		
Considerate	.660	Persistent	.401	Professionally Competent	.616		
Honest	.689						
Religious	.662						
Patriot	.645						
Cooperative	.703						
Cheerful/Humorous	.588						
Humble	.661						

'a'= Factor loadings.

Table—3

FACTOR WISE DISTRIBUTION OF TRAITS FOR ARMY, NAVY AND AIRFORCE

	Factor 1	$\bar{X}$	SD	Factor 2	$\bar{X}$	SD	Factor 3	$\bar{X}$	SD	Factor 4	$\bar{X}$	SD
Army	Trust worthy	3.79	0.87	Confident	3.59	0.89	Knowledgeable	3.50	0.94	Smart Physical Appearance	3.59	1.00
	Loyal/Sincere	3.79	0.80	Optimistic	3.51	0.88	Hard Worker	3.63	0.85	Energetic	3.57	0.88
	Morally Courages	3.76	0.81				Prof. Competent	3.57	0.92	Physically Courageous	3.56	0.83
	Desirous to excel	3.50	0.97							Physically Strong	3.50	0.88
	Cooperative	3.89	0.84							Adventurous	3.50	0.87
	Emotionally Stable	3.66	0.81									
	Open minded	3.61	0.91									
	Humble	3.60	0.91									
	Considerate	3.67	0.91									
	Disciplined	3.56	0.91									
	Honest	3.69	0.97									
	Religious	3.66	0.90									
	Patriot	3.76	0.86									
Navy	Loyal/Sincere	3.57	0.73				Prof. Competent	3.57	0.83			
	Responsible	3.57	1.00				Technically Skillful	3.58	0.66			
	Socially Skillful	3.53	0.61				Self-assured	3.50	0.87			
	Caring	3.53	0.86				Good planner	3.50	0.92			
	Disciplined	3.52	0.98				Hard worker	3.50	0.95			
	Religious	3.53	0.90									
	Patriot	3.53	0.80									
Airforce	Responsible	3.60	0.81	Persistent	3.53	1.00	Knowledgeable	3.65	0.83	Smart Physical Appearance	3.98	0.86
	Emotionally stable	3.55	0.93	Possesses initiative	3.50	0.91	Technically skillful	3.53	0.88	Energetic	3.65	0.71
	Open minded	3.63	0.93	Communicative	3.60	0.74	Hard worker	3.73	0.82	Physically courageous	3.65	0.89
	Honest	3.68	0.92	Confident	3.65	0.70	Prof. Competent	3.55	1.00	Adventurous	3.55	0.81
				Lively	3.50	0.88						

$\bar{X}$= Mean, SD= Standard Deviation

Table—4

FACTOR WISE DISTRIBUTION OF TRAITS FOR ARMY CORPS

	Factor 1	$\bar{X}$	SD	Factor 2	$\bar{X}$	SD	Factor 3	$\bar{X}$	SD	Factor 4	$\bar{X}$	SD
Infantry	Trust worthy	3.79	0.87	Confident	3.59	0.89	Hard worker	3.51	0.85	Smart Physical Appearance	3.59	1.00
	Loyal/Sincere	3.69	0.83	Possesses initiative	3.59	0.95				Physically Courageous	3.60	0.65
	Morally Courages	3.71	0.79	Lively	3.53	0.91				Physically Strong	3.59	0.70
	Emotionally stable	3.53	0.84	Daring/Bold	3.59	0.98						
	Open minded	3.59	0.82									
	Emotionally Stable	3.66	0.81									
	Open minded	3.61	0.91									
	Desirous to excel	3.56	1.00									
	Caring	3.54	0.85									
	Considerate	3.60	0.85									
	Honest	3.63	0.97									
	Patriot	3.74	0.85									
	Cooperative	3.89	0.87									
Artillery	Trust worthy	3.88	0.50	Confident	3.56	0.63	Technically skilful	3.69	0.79	Physically Courageous	3.69	0.48
	Loyal/Sincere	3.94	0.57				Careful	3.69	0.60	Physically Strong	3.50	0.73
	Responsible	3.81	0.83				Self-assured	3.69	0.60			
	Socially skillful	3.69	0.70									
	Morally courageous	4.00	0.82									
	Emotionally Stable	3.88	0.62									
	Open minded	3.69	0.60									
	Tolerant/Patient	3.75	0.58									
	Desirous to excel	3.94	0.68									
	Religious	3.81	0.75									
	Cooperative	4.06	0.68									
	Disciplined	4.00	0.89									
	Considerate	4.25	0.58									
Armoured Core	Trust worthy	3.67	0.58	Original	3.67	0.58	Self assured	3.67	0.58	Smart Physical Appearance	4.67	0.58
	Loyal/Sincere	4.00	-	Confident	3.67	0.58	Prof. competent	3.67	0.58	Aggressive	4.00	-
	Emotionally Stable	3.67	0.58	Dominant	4.00	1.00	Practical	3.67	0.58			
	Open minded	4.00	-	Optimistic	4.00	-						
	Patriot	3.67	0.58									
	Cheerful/Humorous	3.67	0.58									

$\bar{X}$= Mean, SD= Standard Deviation

Table--5

FACTOR WISE DISTRIBUTION OF TRAITS FOR NAVAL BRANCHES

	Factor 1	$\bar{X}$	SD	Factor 2	$\bar{X}$	SD	Factor 3	$\bar{X}$	SD	Factor 4	$\bar{X}$	SD
Operations	Trust worthy	3.79	0.80	Original	3.50	0.65	Knowledgeable	3.50	0.76	Energetic	3.86	0.66
	Loyal/Sincere	3.86	0.86	Confident	3.71	0.73	Self assured	3.57	0.85	Physically Courageous	3.71	0.83
	Responsible	3.86	0.86				Prof. Competent	3.64	0.74	Physically Strong	3.64	0.74
	Morally courageous	3.50	0.65				Practical	3.50	0.52	Adventurous	3.64	0.63
	Desirous to excel	3.71	0.83									
	Caring	3.79	0.58									
	Disciplined	3.64	1.00									
	Honest	3.71	0.61									
	Patriot	3.59	0.84									
Elec. Engr.	Emotionally stable	3.50	0.76	Communicative	3.50	0.93	Knowledgeable	3.50	0.76			
	Tolerant/Patient	3.50	0.76	Confident	3.63	1.00	Good planner	3.53	0.99			
	Caring	3.63	0.92	Original	3.63	1.00	Task oriented	3.53	0.64			
	Honest	3.50	0.76									
	Cooperative	3.63	0.64									
Supply & Services	Trustworthy	3.53	0.35	Communicative	3.55	1.00						
	Disciplined	3.63	0.74	Original	3.58	1.00						
	Cooperative	3.56	0.35									

$\bar{X}$= Mean, SD= Standard Deviation

Table—6

FACTOR WISE DISTRIBUTION OF TRAITS FOR AIRFORCE BRANCHES

	Factor 1	$\bar{X}$	SD	Factor 2	$\bar{X}$	SD	Factor 3	$\bar{X}$	SD	Factor 4	$\bar{X}$	SD
GDP	Emotionally stable	3.90	0.72	Persistent	3.70	0.66				Smart Physical Appearance	4.25	0.64
	Open minded	4.10	0.91	Possesses initiative	3.95	0.69				Energetic	3.75	0.64
	Desirous to excel	3.70	0.66	Confident	3.75	0.64				Physically courageous	3.90	0.97
				Lively	3.90	0.79				Adventurous	3.60	0.68
				Optimistic	3.80	0.77						
CAE	Responsible	3.80	0.94	Communicative	3.50	0.73	knowledgeable	3.50	0.98			
				Decisive	3.55	0.76	Technically skillful	3.55	0.97			
							Hard worker	3.50	0.75			
							Prof. competent	3.55	1.00			

$\bar{X}$= Mean, SD= Standard Deviation

DISCUSSION

DISCUSSION

Armed forces of Pakistan are in a bit developed phase as compared to other institutions of the country. They have tested their credibility in two major (1965 and 1971) and two minor (Kashmir and Sia-Cheen) wars. Now the forces are equipped with the latest technology and determined soldiers. Selection training and assessment of officers who have to command the soldiers and handle the latest technological advances in war-fare is still based on the inherited system of the Britishers. Researches have been conducted to evaluate the selection system at ISSB and develop a more comprehensive system of assessing leadership traits in military cadets in the academics but their sphere has been limited thus have not brought any glaring change in the assessment and evaluation system of leadership potential in Pakistani armed forces (Sarfraz,1990). So a need was felt to do research on assessment and evalution of leadership potential in Pakistan armed forces.

Reviewing the literature on assessment of military leadership it was found that identifying and assessing the traits essential for leadership has been the most commonest method used through out the world (Trussell, 1971, Kimmel 1981, Yukl, 1981). This study was also based on the same paradigm and identified those traits which are thought to be essential for a Pakistani military leader and assess the leadership potential on a five points scale on

these traits. The traits were identified from all those sources within the country who are either involved in assessing military leadership potential in armed forces or the military officers who have themselves led the troops both in peace and war. The data collected was analyzed and evaluated by the judges and a final list of 47 traits was prepared.

Looking at this list of 47 traits (Annexure-B) it is revealed that milltary leadership has varying dimensions. It is a complex phenomenon as we can see that a leader should have traits such as considerate, cooperative, humble, disciplined,caring, open minded, loyal, sincere but on the other hand he should also be aggressive, physically strong, task oriented, domineering and effective. Another aspect of his personality requires traits such as religiosity, patriotism, responsibility and honesty still on another sphere he should be knowledgable, professionally competent, insightful and original. The traits identified in the list do include all those traits and dimensions which Stogdill reported in 1974 after reviewing 163 traits studies conducted during the period from 1949 to 1970 (Bass, 1981). The traits mentioned in the list are more or less the same when compared with those mentioned in the leader behaviour description questionnaire (LBDQ-XII) of Ohio State Leadership studies (Stogdill, 1974), those included in Gough and Helibrum leadership scale of ACL (1980) and those mentioned by Yukl (1981) in his taxonomy for leadership.

All the traits in the list were placed on a five point scale which is thought to work the best when we are measuring a concept having varying dimensions (Johnson & Dixon, 1984). Military cadets of the final term were assessed by their platoon/division/flight commanders on the scale. Apart from being from all the three forces of Pakistan military, the cadets were randomly selected so that they can represent all the corps/arms/branches of their force. The rationale behind selecting the cadets of final term and getting them assessed by their respective platoon/division/fight commanders was that these cadets were to command soldiers after their passing out which was only 10-20 days after the assessment took place. Secondly platoon/division/flight commanders do have a very close supervision on the cadets for at least two years and their foremost duty is to develop and assess leadership traits in the cadets under supervision. Assessment of traits by a qualified observer is also thought to be a valid method when dealing with armed forces set up (Kohs & Irle, 1981).

Annexure 'C' represents those traits which were rated high ($x > 3.50$, $SD \leqslant 1.00$) by the platoon/division/flight commanders in the cadets of all the three services. These indicate that a Pakistani military officers should be physically strong, confident, courageous, daring and bold. On the other hand, he should also be careful, considerate, caring, humble, cooperative, responsible, patriot and religious. Hence on one hand military leadership demands physical

and mental robustness on the other he should also possess the social skills necessary for handling and motivating soldiers to face the bullets of war (Khan,1962). Patriotism and religion are the main pillars for morale building of the soldiers. Pakistan being an Islamic State it has more than 99% of his soldiers and officers as muslims. For muslims presence of Islamic values in a leader make more effective and successful (Beg,1990). Qualities/characteristics such as humbleness, honesty, justice, patience, loyalty and determination have been identified as qualities of military leaders by 'God Almighty' in Holy Quran (Javed,1982).

Annexure D,E and F represents the traits which are rated high for a particular force ($\bar{x} < 3.50$, SD $\leqslant 1.00$) i.e. Army, Navy or Airforce. Comparing the traits rated high for army cadets with naval cadets it can be seen that army cadets apart from possessing social skills such as humble, considerate, cooperative also have to be physically strong, energetic and adventurous as these traits are an essential requirement of a solders fighting on ground (Habib,1990).

Planning, technical skills and professional competence are the basis to keep a ship sailing on the rough sea (Deluga, 1991). Naval officers are also away from their families for a longer period of time and hence require social skills and a caring and responsible attitude so that they can form a happy

atmosphere in the ship with other sailors. So the traits indicating sociability are rated high in the naval cadets.

Air force cadets job is not mainly to command men but to command machines. Flying an aeroplane not only requires technical skill but also confidence and initiative. Traits such as being open minded, adventurous, persistent and emotionally stable are also thought to be essential for a pilot (Cunnigham, Wimpee,& Ballentine, 1990). Gulf crises have made the pilots and airwar as pivotal factors for wining a war. It has proved that pilot should be professionally very competent, courageous and knowledgable so that they can easily identify and strike the targets of the enemy with precision and accuracy. Nearly All the traits which are mentioned above have been rated high in the future air leaders of Pakistan (Annexure E).

When the mean ratings of traits were tabulated against the arms/branch/corps for which a cadet is recommended in a particular force it was seen that in almost all the branches traits recommended go in accordance with the job requirement of the branch. An infantry officers in army should be physically strong, daring bold and courageous (Habib,1990). While an officer in signals corps should be technically skilful, professionally competent and communicative and an artillery officer apart from being technically skilful should also be self-assured, precise, and having a responsible attitute as he has

to handle sensitive missiles which are now-a-days also having nuclear and chemical heads. In the similar fashion if we see the trait rated high for all the branches of army we find that traits are more or less matched with the job requirements of the group for which they are rated high.

In navy the branch which commands the ship and men on the ship is "operations" so the officers who are recommended for this branch should be energetic, confident, original, responsible, professionally competent and practical in nature as compared to the engineering and electrical branch which look after the mechanical and electrical operations of a ship. Supply and services branch of navy looks after the ration, money and other supplies of the men and ship hence are expected to possess traits such as being honest, trustworthy and cooperative. Annexure H of the study reflects that traits rated high for naval branches are matching with their job requirements.

Traits rated high for general duty pilots (GDP) and aeronautical engineers (CAE) of Pakistan airforce also correspond with the requirements of the these branches. Pilots are required to be courageous, adventurous, possess initiative and are emotionally stable while engineers are technically skilful, professionally competent, knowledgeable and responsible (Annexure, J).

When the data of the study was factor analyzed with "Principle Component Analysis" (PCA) it revealed that all the traits loaded high on factor No.1. The factor loading on this factor were between 0.791 to 0.439. Such a high loadings on a single factor does indicate that this scale measures a single composite construct (Cureton & Agostino, 1983). In the present study this composite construct was leadership. If the traits are loaded high on a single factor they are also highly correlated with each other and the total (Comrey, 1988). Annexure K Shows the correlation of each variable with total. This clearly indicates that all the variables are highly correlated between 0.42 to 0.77 and are significant at .001 level. Further support for the scale measuring the same construct is gathered when we see the alpha coefficient for the data which is 0.973.

In construction of a scale, besides analyzing the factorial validity of scale, the components of the scale comprising the factor are also of major interest. For this purpose Varimax Rotation was performed to get an insight into the components of the composite construct (Gorsuch, 1983, Comery, 1988). The factors extracted with this rotation along with their factor loadings are shown in table 4. It is evident from the table that factor 1 has the maximum number of traits loaded on it. The traits loaded high on this factor are loyal/sincere (a=.795), disciplined (a=.707), cooperative (a=.703), religious (a=.662), humble (a=.661) patriot (a=.645), trust worthy (a=.633)

and responsible (a=.628). These traits reflect the social and interpersonal skills of a leader. Stogdill also reported after an analysis of fifty two factorial studies on military and industrial leaders that social and Interpersonal skills factor was identified in sixteen studies as the most prominent factor (Bass, 1981,p.90). Similar results were reported by Posner and Kouzes (1988) in their study on development and validation of the leadership practices inventory. Inter personal activities also explained maximum variance when air force personnals work dimentions were factor analyzed by Cunninghum, Wimpee and Ballentne in 1990. Title given to the factor in the present study is 'SOCIABILITY'. Patriotism and being religious are also loaded high in this factor it has been observed in the wars Pakistan has fought that those leaders have been successful who have a good faith in their religion and also have a great love for their country (Beg,1990).

The traits loaded high on factor 2 are communicative (a=.782), confident (a=.755), lively (a=.679), dominant (a=.678), original (a=.659) daring/ bold (a=.689). Looking at these traits the title given to this factor is 'DOMINANCE '. Traits loaded on this factor have also been given prominence in various studies done in the military setup. (Fleet & Yukl,1988).

With the recent changes in the warfare technology a leader is required to be technically skilful, professionally competent task oriented, hard worker

and a good planner (Hunt,1988). All these traits are loaded high on factor 3 which can be given a title as 'PROFESSIONAL COMPETENCE'. A military leader should also be energetic, courageous, physically strong and adventurous (Habib, 1990). It is evident from table 2 that the factor 4 reflects high loadings on traits physically strong, energetic, courageous. This factor can be labelled as 'DYNAMISM'.

Reviewing the results discussed above one can say that the military leadership traits as understood in Pakistan are broadly composed of sociability, dominance, professional competence and dynamism.

It will now be ineresting to review the clustering of traits in various sectors of the armed forces along with the areas of which Pakistani military leadership comprises.

Table 3 indicates factor wise distribution of traits for the three services of armed forces that is Army, Navy and Airforce. It reveals that the trait rated high for army ($\bar{X} > 3.50$ and $SD \leqslant 1.00$) cluster on factor 1 and 4. This indicates that army leaders are demanded for being sociable and should possess dynamic qualities so that they are able to lead their troops in odd situation of the war and keep their morale high. As morale building has a direct link with the social and dynamic qualities of a leader (Haider, 1990),

hence an army leader or commander should be cooperative, humble and considerate and also be courageous, energetic and adventurous so that he is able to make his men face bullets on the front. With the change in technology army leadership also demands professional competence and knowledge about the latest technological advancements hence these traits are also rated high in factor 3, as reflected in the table.

When the traits rated high for navy ($\bar{X} > 3.50$ and SD $\leqslant 1.0$) are compared with army, it is seen that a naval officer also requires to be sociable but on its loyality, responsibility and caring sectors. A naval officer also requires a greater degree of professional competence as it is seen that the traits rated high for naval officers cluster more on factor 3. Contrary to army leaders the navy leaders are not rated high on any of the traits belonging to dominance (factor 2) and dynamism (factor 4). This may be due to the fact that the naval officers have to keep their men sailing for months away from their families where they only interact with the men on board hence traits requiring dynamic qualities and a dominaring attitude does not suit a naval officer (Deluga, 1991).

Airforce leaders have an even distribution of traits rated high on all the four factors (Table 3). A pilot requires to be dominaring and dynamic as he has to command the skies and play a vital role in wining a battle (Bloom,

1977) while the engineers must have the technical skills so that they can ensure the safe flight of the machines who have always turned the tables of war in history.

Traits which rate high for the three main army corps ($\overline{X} > 3.50$ and SD $\leqslant 1.0$) are shown in table 4. Infantry leaders apart from being sociable also have to dominate the troops and have dynamic qualities such as smart physical appearance, physically courageous and due to their job requirement they also display strong physique (Habib, 1990). Traits rated high for artillery leaders also cluster more in the sociability sector but their job requires them to be more technically skillful, careful and self-assured (Afzal, 1990). Amoured Core officers along with their social characteristics also display a dominaring attitude and a smart physical bearing.

When Naval branches, high rated traits were distributed (Table 5) along the factors it was seen that the operations branch which is also known as the executive branch of navy had traits clustered more on the sociability, professional competence and dynamism. As this branch is the commanding branch of navy hence its officers are expected to be professionally competent, dynamic and sociable so that they are able to keep the men on ship in a safe and healthy atmosphere (McDonald, Beckett & Hodgdon, 1991). The electric and engineering branch of navy has to look after the electrical and mechanical

problems of a ship hence officers belonging to this branch have to sociable but important for them is to be professionally competent and more task oriented so that the electrical and mechanical operations of the ship remain functioning properly. Table 5 shows that traits rated high for these leaders cluster on professional competence and dominance along with sociability. Supply and services branch leaders are expected to be trustworthy and cooperative in nature so that they can deliver the goods to the sailors with honesty and deligence. It is clear from Table 5 that cadets tipped for this group are rated high in sociability factor on traits such as trustworthy, disciplined and cooperative and in dominance on being communicative and original.

Airforce branches distribution also goes in accordance with the job requirements of its branches. Table 6 is indicative that traits rated high ($\overline{X}$ > 3.50 and SD $\leq$ 1.00) for GDP cadets who have to remain very agile and active when they are in air a small negligence can cause big desaster not only for them but for their country also. Hence traits such as emotional stability and desirous to excel are rated high in the sociability sector and traits such as confident, lively, possessing initiative persistence and optimism in the dominance sector with energetic and adventurous in the dynamism sector are rated high for commanders of machines in the air. CAE cadets have to look after the engineering set up of airforce. They maintain and even built planes which command the skies, so professional competence is the factor where

their high rated traits should cluster. Looking at table 6 it is evident that high rated traits cluster on professional competence factor and the only trait rated high of sociability is being responsible and on dominance are communicative and decisive. Engineers job not only requires a lot of responsibility but also has to properly communicate his work to his juniors for its proper execution. He requires a good decision power so that the machine prepared to command the skies has a real hold over the enemy in air and plays a decisive role in winning the war.

After developing a scale for assessment of leadership potential in armed forces this study has also identified the traits essnetial for the three services i.e. army, navy and airforce and their branches. It has also distributed the leadership traits of Pakistani armed forces into various sectors and has looked for the extent of these traits desired for various services. Their implications and practical uses for the service in general and its arm/branch/corp in particular was also high lighted in the study.

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ANNEXURES

Annexure 'A'

LEADER SHIP TRAITS COLLECTED FROM VARIOUS SOURCES

1. SMART PHYSICAL APPEARANCE
2. ENERGETIC
3. KNOWLEDGEABLE
4. INSIGHTFUL
5. FLUENCY OF SPEECH
6. ORIGINAL
7. ADAPTABLE
8. EXTROVERT
9. DOMINATE
10. POSSESSES INITIATIVE
11. PERSISTENT
12. DEPENDABLE.
13. TRUST WORTHY
14. LOYAL
15. RESPONSIBLE
16. TECHNICAL SKILLS
17. INTERPERSONAL SKILLS
18. EMPHASIS PERFORMANCE
19. MORALLY COURAGEOUS
20. PHYSICALLY COURAGEOUS
21. DIRECTIVE
22. TASK ORIENTED
23. WILLING TO BE A MODEL
24. PHYSICAL STAMINA
25. EMOTIONAL STABILITY
26. WILLING FOR EXPERIENCE
27. SENSE OF HUMOUR
28. OPEN MINDED
29. TOLERANT/PATIENT
30. DESIRE TO EXCEL
31. SELF-ASSURED
32. DIPLOMATIC
33. CARES FOR OTHER (Humane)
34. ADVENTUROUS
35. LIVELY
36. DARING/BOLD
37. POSSESSES SOCIAL & ECONOMIC STATUS
38. PLANNING ABILITY
39. INSPIRES SUBORDINATES
40. HUMBLE
41. CRITICAL
42. DISCIPLINED
43. CONSIDERATE
44. HARD WORKER
45. HONEST
46. PROFESSIONALLY COMPETENT
47. RELIGIOUS
48. PATRIOT
49. SETS PERSONAL EXAMPLES
50. OPTIMISTIC
51. PRESERVING
52. REASONABLE
53. ORGANIZED
54. SPONTANEOUS
55. REFINED
56. TOLERANT
57. STABLE
58. CAREFUL
59. VIRTUOUS
60. ARGUMENTATIVE
61. EGOISTIC
62. SELF CONTROLLED
63. ASSERTIVE
64. PRINCIPLED
65. HELPFUL
66. CULTURED
67. POLITE
68. HUMOROUS
69. FLEXIBLE
70. MAGNANIMOUS
71. ETHICAL
72. METICULOUS
73. ESPRIT DE CORPS

TRAITS SELECTED AFTER JUDGES ANALYSIS

1. SMART PHYSICAL APPEARANCE
2. ENERGETIC
3. KNOWLEDGEABLE
4. INSIGHTFUL
5. COMMUNICATIVE
6. ORIGINAL
7. CONFIDENT
8. EXTROVERT
9. DOMINANT
10. POSSESSES INITIATIVE
11. PERSISTENT
12. AGGRESSIVE
13. TRUST WORTHY
14. LOYAL/SINCERE
15. RESPONSIBLE
16. TECHNICALLY SKILLFUL
17. SOCIALLY SKILLFUL
18. CAREFUL
19. MORALLY COURAGEOUS
20. PHYSICALLY COURAGEOUS
21. DECISIVE
22. TASK ORIENTED
23. PERSEVERING
24. PHYSICALLY STRONG
25. EMOTIONALLY STABLE
26. OPEN MINDED
27. TOLERANT/PATIENT
28. DESIROUS TO EXCEL
29. SELF-ASSURED
30. CARING
31. ADVENTUROUS
32. LIVELY
33. DARING/BOLD
34. GOOD PLANNER
35. EFFECTIVE
36. HUMBLE
37. DISCIPLINED
38. CONSIDERATE
39. HARD WORKER
40. HONEST
41. PROFESSIONALLY COMPETENT
42. RELIGIOUS
43. PATRIOTIC
44. OPTIMISTIC
45. CHEERFUL/HUMOROUS
46. PRACTICAL
47. COOPERATIVE

Annexure 'C'

TRAITS RATED HIGH FOR THE CADETS OF ARMY, NAVY AND AIRFORCE

	TRAIT	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	3.59	1.00
2.	CONFIDENT	3.61	0.84
3.	TRUST WORTH	3.64	0.84
4.	LOYAL/SINCERE	3.70	0.85
5.	RESPONSIBLE	3.56	0.95
6.	SOCIALLY SKILLFUL	3.50	0.83
7.	CAREFUL	3.51	0.94
8.	MORALLY COURAGEOUS	3.56	0.80
9.	PHYSICALLY COURAGEOUS	3.52	0.85
10.	PHYSICALLY STRONG	3.50	0.83
11.	EMOTIONAL STABILITY	3.54	0.87
12.	OPEN MINDED	3.52	0.89
13.	TOLERANT/PATIENT	3.59	0.84
14.	DESIROUS TO EXCEL	3.54	0.90
15.	SELF-ASSURED	3.56	0.87
16.	CARING	3.51	0.86
17.	ADVENTUROUS	3.50	0.85
18.	DARING/BOLD	3.57	0.90
19.	HUMBLE	3.51	0.89
20.	DISCIPLINED	3.51	0.99
21.	CONSIDERATE	3.58	0.85
22.	HARD WORKER	3.52	0.90
23.	HONEST	3.64	0.91
24.	OPTIMISTIC	3.51	0.80
25.	RELIGIOUS	3.54	0.89
26.	PATRIOT	3.68	0.85
27.	COOPERATIVE	3.67	0.78
28.	ENERGETIC	3.59	0.84
29.	KNOWLEDGEABLE	3.53	0.91
30.	COMMUNICATIVE	3.50	0.88
31.	PROFESSIONALLY COMPETENT	3.50	0.94

Annexure 'D'

TRAITS RATED HIGH FOR ARMY CADETS

	TRAIT	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	3.59	1.00
2.	ENERGETIC	3.57	0.88
3.	KNOWLEDGEABLE	3.50	0.94
4.	CONFIDENT	3.59	0.89
5.	TRUST WORTHY	3.79	0.87
6.	LOYAL/SINCERE	3.79	0.80
7.	MORALLY COURAGEOUS	3.76	0.81
8.	DESIROUS TO EXCEL	3.50	0.97
9.	COOPERATIVE	3.89	0.84
10.	PHYSICALLY COURAGEOUS	3.56	0.83
11.	PHYSICALLY STRONG	3.50	0.88
12.	EMOTIONALLY STABLE	3.66	0.81
13.	OPEN MINDED	3.61	0.91
14.	HUMBLE	3.60	0.91
15.	CONSIDERATE	3.67	0.91
16.	DISCIPLINED	3.56	0.91
17.	HARD WORKER	3.63	0.85
18.	HONEST	3.69	0.97
19.	RELIGIOUS	3.66	0.90
20.	PATRIOT	3.76	0.86
21.	OPTIMISTIC	3.51	0.88
22.	PROFESSIONALLY COMPETENT	3.57	0.92
23.	ADVENTUROUS	3.50	0.87

.Annexure 'E'

TRAITS RATED HIGH FOR NAVAL CADETS

	TRAIT	$\bar{X}$	SD
1.	LOYAL/SINCERE	3.57	0.73
2.	RESPONSIBLE	3.57	1.00
3.	SOCIALLY SKILLFUL	3.53	0.61
4.	PROFESSIONALLY COMPETENT	3.57	0.83
5.	TECHNICALLY SKILLFUL	3.58	0.66
6.	SELF ASSURED	3.50	0.87
7.	CARING	3.53	0.86
8.	GOOD PLANNER	3.50	0.92
9.	DISCIPLINED	3.52	0.98
10.	HARD WORKER	3.50	0.95
11.	RELIGIOUS	3.53	0.90
12.	PATRIOT.	3.53	0.80

Annexure 'F'

TRAITS RATED HIGH FOR AIRFORCE CADETS

	TRAIT	$\bar{X}$	SD
1.	PERSISTENT	3.53	0.82
2.	POSSESSIVE INITIATIVE	3.50	0.91
3.	SMART PHYSICAL APPEARANCE	3.98	0.86
4.	ENERGETIC	3.65	0.74
5.	KNOWLEDGEABLE	3.65	0.83
6.	COMMUNICATIVE	3.60	0.74
7.	CONFIDENT	3.65	0.70
8.	RESPONSIBLE	3.60	0.81
9.	TECHNICALLY SKILLFUL	3.53	0.88
10.	PHYSICALLY COURAGEOUS	3.65	0.89
11.	EMOTIONALLY STABLE	3.55	0.93
12.	OPEN MINDED	3.63	0.93
13.	LIVELY	3.50	0.88
14.	ADVENTUROUS	3.55	0.81
15.	HARD WORKER	3.73	0.82
16.	HONEST	3.68	0.92
17.	PROFESSIONALLY COMPETENT	3.55	1.00

Annexure 'G'

TRAITS RATED HIGH FOR 'INFANTRY GROUP'

	TRAIT	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	3.69	1.00
2.	CONFIDENT	3.60	0.95
3.	POSSESSES INITIATIVE	3.59	0.95
4.	TRUST WORTHY	3.69	0.96
5.	LOYAL/SINCERE	3.69	0.83
6.	MORALLY COURAGEOUS	3.71	0.79
7.	PHYSICALLY COURAGEOUS	3.60	0.65
8.	PHYSICALLY STRONG	3.59	0.70
9.	EMOTIONALLY STABLE	3.53	0.81
10.	OPEN MINDED	3.59	0.82
11.	DESIROUS TO EXCEL	3.56	1.00
12.	CARING	3.54	0.85
13.	LIVELY	3.53	0.95
14.	DARING/BOLD	3.59	0.98
15.	CONSIDERATE	3.60	0.85
16.	HARD WORKER	3.51	0.85
17.	HONEST	3.63	0.97
18.	RELIGIOUS	3.60	0.91
19.	PATRIOT	3.74	0.95
20.	COOPERATIVE	3.89	0.87

Annexure 'G'

TRAITS RATED HIGH FOR 'ARTILLERY GROUP'

	TRAIT	$\bar{X}$	SD
1.	CONFIDENT	3.56	0.63
2.	TRUST WORTHY	3.88	0.50
3.	LOYAL/SINCERE	3.94	0.57
4.	RESPONSIBLE	3.81	0.83
5.	TECHNICALLY SKILLFUL	3.69	0.79
6.	SOCIALLY SKILLFUL	3.69	0.70
7.	CAREFUL	3.69	0.60
8.	MORALLY COURAGEOUS	4.00	0.82
9.	PHYSICALLY COURAGEOUS	3.69	0.48
10.	PHYSICALLY STRONG	3.50	0.73
11.	EMOTIONALLY STABLE	3.88	0.62
12.	OPEN MINDED	3.69	0.60
13.	TOLERANT/PATIENT	3.75	0.58
14.	DESIROUS TO EXCEL	3.94	0.68
15.	SELF-ASSURED	3.69	0.60
16.	HUMBLE	4.06	0.85
17.	DISCIPLINED	4.00	0.89
18.	CONSIDERATE	4.25	0.58
19.	RELIGIOUS	3.81	0.75
20.	COOPERATIVE	4.06	0.68

Annexure 'G'

TRAITS RATED HIGH FOR 'ARMOURED CORE' GROUP

	TRAIT	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	4.67	0.58
2.	ORIGINAL	3.67	0.58
3.	CONFIDENT	3.67	0.58
4.	DOMINANT	4.00	1.03
5.	AGGRESSIVE	4.00	-----
6.	TRUST WORTHY	3.67	0.58
7.	LOYAL/SINCERE	4.00	-----
8.	EMOTIONALLY STABLE	3.67	0.58
9.	OPEN MINDED	4.00	-----
10.	SELF-ASSURED	3.67	0.58
11.	PROFESSIONALLY COMPETENT	3.67	0.58
12.	PATRIOT	3.67	0.58
13.	OPTIMISTIC	4.00	-----
14.	CHEERFUL/HUMOROUS	3.67	0.58
15.	PRACTICAL	3.67	0.58

Annexure 'G'

TRAITS RATED HIGH FOR 'SIGNAL GROUP'

	TRAITS	$\bar{X}$	SD
1.	HONEST	3.67	0.58
2.	PATRIOT	3.67	0.58
3.	COOPERATIVE	3.67	0.58
4.	TECHNICALLY SKILLFUL	3.53	0.71
5.	DECISIVE	3.50	-----
6.	HUMBLE	3.58	0.67
7.	DISCIPLINED	3.50	0.89
8.	COMMUNICATIVE	3.7	-----

Annexure 'G'

TRAITS RATED HIGH FOR 'ORDINANCE GROUP'

	TRAITS	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	4.00	-----
2.	CONFIDENT	3.67	0.58
3.	LOYAL/SINCERE	3.70	1.00
4.	SOCIALLY SKILLFUL	3.67	0.58
5.	MORALLY COURAGEOUS	3.76	0.53
6.	PERSEVERING	3.58	0.81
7.	PHYSICALLY STRONG	4.00	-----
8.	EMOTIONAL STABILITY	4.33	0.58
9.	OPEN MINDED	4.33	1.00
10.	HUMBLE	4.00	1.00
11.	DISCIPLINED	3.67	0.58
12.	OPTIMISTIC	3.67	0.58
13.	RELIGIOUS	4.67	0.58

Annexure 'G'

TRAITS RATED HIGH FOR 'AIR DEFENCE' GROUP

	TRAITS	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	4.50	0.58
2.	CONFIDENT	4.50	0.58
3.	TRUST WORTHY	4.75	0.50
4.	LOYAL/SINCERE	4.50	1.00
5.	TECHNICALLY SKILLFUL	4.50	0.58
6.	CAREFUL	4.50	0.58
7.	MORALLY COURAGEOUS	4.50	0.58
8.	PHYSICALLY STRONG	4.50	0.58
9.	EMOTIONALLY STABLE	4.75	0.50
10.	OPEN MINDED	5.00	-----
11.	TOLERANT/PATIENT	4.50	1.00
12.	ADVENTUROUS	4.50	0.58
13.	EFFECTIVE	4.50	0.58
14.	DISCIPLINED	4.75	0.50
15.	RELIGIOUS	4.75	0.50
16.	PROFESSIONALLY COMPETENT.	4.50	0.58

Annexure 'G'

TRAITS RATED HIGH FOR 'ASC' GROUP

	TRAITS	$\bar{X}$	SD
1.	TRUST WORTHY	3.52	0.58
2.	LOYAL/SINCERE	3.67	0.76
3.	RESPONSIBLE	3.53	0.68
4.	TASK ORIENTED	3.53	0.58
5.	HONEST	3.83	0.55
6.	RELIGIOUS	3.67	0.58
7.	PATRIOT	3.81	1.00
8.	COOPERATIVE	3.73	0.58
9.	ADVENTUROUS	3.67	1.00
10.	PRACTICAL	3.50	0.58

Annexure 'G'

TRAITS RATED HIGH FOR 'ENGINEERS' GROUP

	TRAITS	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	4.33	0.58
2.	ENERGETIC	4.00	1.00
3.	KNOWLEDGEABLE	4.33	0.58
4.	ORIGINAL	4.33	0.58
5.	CONFIDENT	4.33	0.58
6.	TRUST WORTHY	4.33	0.58
7.	TECHNICALLY SKILLFUL	4.33	0.58
8.	PROFESSDIONALLY COMPETENT	4.00	-----
9.	PHYSICALLY COURAGEOUS	4.33	0.58
10.	EMOTIONALLY STABLE	4.33	1.00
11.	HARD WORKER.	4.33	0.58
12.	HONEST	4.33	0.58
13.	PRACTICAL	4.33	0.58
14.	OPTIMISTIC	4.00	1.00

Annexure 'H'

TRAITS RATED HIGH IN NAVAL 'OPERATIONS' GROUP

	TRAITS	$\bar{X}$	SD
1.	ENERGETIC	3.86	0.66
2.	KNOWLEDGEABLE	3.50	0.76
3.	ORIGINAL	3.50	0.65
4.	CONFIDENT	3.71	0.73
5.	TRUST WORTHY	3.79	0.80
6.	LOYAL/SINCERE	3.86	0.86
7.	RESPONSIBLE	3.86	0.86
8.	MORALLY COURAGEOUS	3.50	0.65
9.	PHYSICALLY COURAGEOUS	3.71	0.83
10.	PHYSICALLY STRONG	3.64	0.74
11.	DESIROUS TO EXCEL	3.71	0.83
12.	SELF-ASSURED	3.57	0.85
13.	CARING	3.79	0.58
14.	ADVENTUROUS	3.64	0.63
15.	DISCIPLINED	3.64	1.00
16.	HONEST	3.71	0.61
17.	PROFESSIONALLY COMPETENT	3.64	0.74
18.	PATRIOT	3.57	0.94
19.	PRACTICAL	3.50	0.52

Annexure 'H'

TRAITS RATED HIGH IN 'ELECTRICAL AND ENGINEERING GROUP'

	TRAITS	$\bar{X}$	SD
1.	KNOWLEDGEABLE	3.50	0.76
2.	COMMUNICATIVE	3.50	0.93
3.	CONFIDENT	3.63	1.00
4.	EMOTIONAL STABLE	3.50	0.76
5.	TOLERANT/PATIENT	3.50	0.76
6.	CARING	3.63	0.92
7.	HONEST	3.50	0.76
8.	COOPERATIVE	3.63	0.74
9.	GOOD PLANNER	3.53	0.99
10.	TASK ORIENTED	3.53	0.64
11.	ORIGINAL	3.63	1.00

Annexure 'H'

TRAITS RATED HIGH IN 'SUPPLY AND SERVICES' GROUP

	TRAITS	$\bar{X}$	SD
1.	COMMUNICATIVE	3.55	1.00
2.	ORIGINAL	3.58	1.00
3.	TRUST WORTHY	3.53	0.35
4.	DISCIPLINED	3.63	0.74
5.	COOPERATIVE.	3.53	0.35

Annexure 'J'

TRAITS RATED HIGH FOR GENERAL DUTY PILOT (GDP)

	TRAITS	$\bar{X}$	SD
1.	SMART PHYSICAL APPEARANCE	4.25	0.64
2.	PERSISTENT	3.70	0.86
3.	POSSESSIVE INITIATIVE	3.95	0.69
4.	ENERGETIC	3.75	0.64
5.	CONFIDENT	3.85	0.75
6.	EMOTIONAL STABILITY	3.90	0.72
7.	LIVELY	3.90	0.79
8.	OPEN MINDED	4.10	0.91
9.	PHYSICALLY COURAGEOUS	3.90	0.97
10.	ADVENTUROUS	3.60	0.88
11.	OPTIMISTIC	3.80	0.77
12.	DESIROUS TO EXCEL	3.70	0.66

Annexure 'J'

TRAITS RATED HIGH FOR AERONAUTICAL ENGINEERING ' CAE' CADETS

	TRAITS	$\bar{X}$	SD
1.	KNOWLEDGEABLE	3.50	0.98
2.	RESPONSIBLE	3.80	0.94
3.	TECHNICALLY SKILLFUL	3.55	0.97
4.	HARD WORKER	3.50	0.75
5.	PROFESSIONALLY COMPETENT	3.55	1.00
6.	COMMUNICATIVE	3.50	0.73
7.	DECISIVE.	3.55	0.76

Correlation of Variables With Total

Correlations:	TOT
V1	.4533**
V2	.5971**
V3	.6827**
V4	.6929**
V5	.6577**
V6	.7012**
V7	.7191**
V8	.6521**
V9	.6663**
V10	.6896**
V11	.6419**
V12	.5394**
V13	.6300**
V14	.6413**
V15	.7114**
V16	.6845**
V17	.7029**
V18	.6689**
V19	.7590**
V20	.6955**
V21	.7878**
V22	.7364**
V23	.7110**
V24	.5753**
V25	.6496**
V26	.7213**
V27	.6942**
V28	.6899**
V29	.7527**
V30	.7369**
V31	.6074**
V32	.7356**
V33	.7101**
V34	.7811**
V35	.7068**
V36	.5889**
V37	.7133**
V38	.6996**
V39	.7053**
V40	.6418**
V41	.6544**
V42	.6109**
V43	.6508**
V44	.6977**
V45	.5643**
V46	.7338**
V47	.6176**

N of cases: 140 1-tailed Signif: * - .01 ** - .001

Annexure L

Dear Judge,

1) Given overleaf are some traits. You are requested to indicate those traits that should be possessed by a "leader" in the Pakistan armed forces. By leader we mean some one relatively young (Lt. to Maj.) or equivalent in other forces i.e., Navy and Air Force. Kindly place a tick (/) against the trait that you think as important.

2) If you think a trait is not clear, does not convey the proper meaning or is not properly worded, put a 'c' in front of it.

3) Trait not included in the list should be added at the end and suggest appropriate wording or traits for those which you have marked as 'c'.

4) Please also mark the first five traits you think are most essential of a Pakistani military leader both in peace and war.

Annexure M

Dear Sir,

Given overleaf are some leadership traits. You are requested to please evaluate Cadet No. _____ of your Platoon/Division/Flight on these traits. Each trait is presented on a five point scale starting from 1 to 5. If a cadet is a highly bestowed with the trait being judged please put a cross mark (X) on No.5. On the other hand if he is lacking grossly the trait being judged than put a cross mark on No.1. For example if a cadet is highly extrovert he will be marked on the trait as

	Low				High
Extrovert	_____	_____	_____	_____	__x__
	1	2	3	4	5

On the contrary if an other cadet is not extrovert at all then he will be marked as.

	Low				High
Extrovert	__x__	_____	_____	_____	_____
	1	2	3	4	5

Those cadets who possesses the above evaluated trait in between 1 and 5 should be marked at their appropriate position from 2 to 4.

It should be remembered that possession of the trait ascends from No.1 to No.5. No.1 indicates a very low possession of the trait being judged and No.5 indicate high possession of the trait.

At the end of the evaluation please also indicate your recommendations for the arms/branch/crops. of the force this cadet is suitable for.

Your cooperation sir, in this respect will be highly appreciated and will also play a vital role in updating and revising the evaluation of leadership traits in the academy in particular and armed forces in general.