

## Leadership Effectiveness and Styles in Relation to Personality Characteristics - An Exploratory Study Synopsis\*

V. Ammineedu

*Former Director (Personnel), Bharat Electronics, India*

### 1. Background

In the early 1900s leadership traits were studied to determine what made certain people great like Thomas Jefferson, Napoleon, Abraham Lincoln, and Mahatma Gandhi. These studies were called "great men" theories. Subsequently, "Traits" theories of leadership have come up with the philosophy that Leadership is not limited to a few historic great men.

Terman's (1904) study is perhaps the earliest study on "Trait" theory of leadership. In reviews of the trait literature, Gibb (1947), Jenkins (1947) and Stogdill (1948) identified several studies in which traits were associated with measures of leader effectiveness with co-relations as high as 0.50.

Results of investigation relating personality traits to leadership have been, however, in-consistent and often disappointing. Zaccaro, Foti, and Kenny (1991) noted "trait explanations of leader emergence are generally regarded with little esteem by leadership theorists". The original source of skepticism with the trait approach is often attributed to Stogdill's (1948) influential review. Although Stogdill did find some consistent relations, he concluded, "The findings suggest leadership is not a matter of passive status or of the mere possession of some combination of traits". (Stogdill, 1948).

One of the biggest problems in past research relating personality to leadership is the lack of structure in describing personality, leading to wide range of traits being investigated under different names.

In the past two decades, views of many personality psychologists have converged regarding the structure and concepts of personality. Generally, researchers agree that there are five robust factors of personality that can serve as a meaningful taxonomy for classifying personality attributes (Digman, 1990). This taxonomy has consistently emerged in longitudinal studies; across different resources (e.g. ratings by self, spouse, acquaintances and friends); with numerous personality inventories and theoretical systems; and in different age, sex, race and language groups. The cross cultural generalizability of the five-factor structure has been established through research in many countries (McCrae & Costa, 1997). Evidence indicates that the Big Five are heritable and stable over time (Costa & McCrae, 1998; Digman, 1989).

Timothy A. Judge et al., (2002) used the five-factor model as an organizing framework and meta-analyzed 222 co-relations from 73 samples. Overall, the five factor model had a multiple co-relation of 0.48 with leadership, indicating strong support for the leader trait perspective

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when traits are organized according to the five-factor model.

Joyce E. Bono, and Judge, Timothy A. (2004b) carried out a meta-analysis of relationship of Personality with Transformational and Transactional leadership and reported that the Extraversion correlated 0.24 with transformational leadership. However, the researchers observed that, "With respect to the other four Big Five Traits, our results are quite modest, indicating that the Big Five may not be the best way to discover personality antecedents of ratings of transformational and transactional leadership behaviors. Whereas a broad personality taxonomy, such as the Big Five, can be a useful framework for cumulating research results, it appears that more narrow or specific traits may be relevant in predicting and understanding transformational and transactional leadership".

Not all scholars agree that the "Big Five" model of personality is better than taxonomies with more specific traits (Block, 1995; Hough, 1992).

From a spiritual angle a number of researchers point out the deficiency of Five-Factor model and personality constructs in general (Robert A. Emmons, 1999; Ralph L. Piedmont, 1999; Douglas A. MacDonald, 2000; Justin B. Poll and Timothy B. Smith, 2003).

Honesty-Humility is an important factor in leadership studies which is not adequately covered in Five Factor model (Michael C. Ashton, and Kibeom Lee, 2005; Michael C. Ashton et al., 2004; Michael C. Ashton, Kibeom Lee, and R. Goldberg, 2004; and Kibeom Lee et al., 2005).

## **2. Objectives of the Research**

As brought out in the background, three points emerge: 1) Early trait based leadership studies suffered due to lack of an agreed personality structure and definitions of personality domains/variables. 2) Big-Five personality structure appeared to be one of the solutions to the earlier studies lacking consistency in the definitions of personality variables among various researchers. 3) However, recent research findings pointed out the inadequacy of using broad domains of Big-Five. In the light of this background, the following objectives are arrived at for the current research investigation:

1. To study the relationship between Big-Five personality characteristics and leadership effectiveness.
2. To develop a robust personality construct based on 'Gunas'
3. To develop a measure of 'Spiritual Progress' of a person through measuring divine & demoniac qualities of the person.
4. To study the relationship between Gunas, Divine & Demoniac qualities and leadership effectiveness.
5. To study the relationship between Big-Five personality characteristics and leadership styles.
6. To study the relationship between Gunas, Divine & Demoniac qualities and leadership styles.

## **3. Literature Review**

### **3.1 Introduction**

In the current study, as far as the literature survey is concerned; traits, dispositions and individual differences that characterize effective leaders versus non-effective leaders are referred to. Some of the studies may contain leadership styles and behaviors in addition to leadership effectiveness. Studies that contain one or more aspects of personality, leadership styles and leadership effectiveness and considered under the heading of charismatic leadership, transformational leadership, and transactional leadership are covered under section 3.3. Studies coming under the headings of Value based leadership, Ethical leadership, Authentic leadership, Spiritual leadership, Servant Leadership, and Level 5 leadership are included in section 3.4. All other studies not specifically mentioning these leadership types are included in section 3.2. Section 3.5 covers ancient wisdom and some great leaders; and section 3.6 covers follower-self, personality, and identity. This being a synopsis, only some important representative studies are included.

### **3.2 Personality Characteristics, Leadership Styles and Leadership Effectiveness**

David Antonioni (1998) studied the relationship between the Big Five personality factors and conflict management among 357 students and 110 managers. The main results indicate that extraversion, conscientiousness, openness

and agreeableness have a positive relationship with dominating nature, while agreeableness and neuroticism have a negative relationship with dominating. Extraversion, openness and conscientiousness have a negative relationship with avoiding nature, while agreeableness and neuroticism have a positive relationship with avoiding.

Kickul Jill, and Neumann George (2000) investigated the function of personality and cognitive ability in emergent leadership behaviors and their relationships to teamwork processes and outcomes. The participants of the study were 320 undergraduate psychology students. Results revealed that extraversion, openness to experience and cognitive ability were predictive of emergent leadership behaviors. Conscientiousness and cognitive ability were associated with team performance.

Colin Silverthorne (2001) studied samples of effective and not effective leaders in U.S., the Republic of China (Taiwan) and Thailand. The results for the US sample show, on the big five model of personality effective leaders more emotionally stable, more extraverted, more open to experience, more agreeable and more conscientious than leaders seem as not effective. The results from Republic of China (Taiwan) indicate that the effective and not effective leaders differed on their responses to the Neuroticism, Extraversion, Agreeableness and Conscientiousness scales but not to the openness scale. In case of Thailand sample only, effective and not effective leaders differed only on two scales - Neuroticism and Extraversion. However, effective managers differ from less effective ones in describing themselves as more extraverted, more agreeable, more conscientious, and less neurotic in all the three cultures studied, and that US managers (but not Chinese and Thai) also describe themselves as more open to experience. "In general, the results raise questions about the consistency of the five factor model of personality when related to leadership and its usefulness in non- western cultures."

Stewart-Mark-Leland (2001) studied the relationship between traits from Five Factor Model (FFM) of personality to emergent leadership. A total of 160 men were assigned to four-person groups and engaged in a leaderless group discussion task (LGD). Results indicated that extraversion and openness positively predicted emergent leadership,

while neuroticism showed a negative relation.

A recent qualitative and quantitative review on personality and leadership is by Timothy A. Judge et al (2002). One of the biggest problems in past research on leadership traits studies is the lack of a structure in describing personality, leading to a wide range of traits being investigated under different labels. Judge et al used the five factor model as an organizing framework and meta-analyzed 222 correlations from 73 samples. Overall, the correlations with leadership were Neuroticism = -0.24, Extraversion = 0.31, Openness to Experience = 0.24, Agreeableness = 0.08, and Conscientiousness = 0.28. Overall, five-factor model had a multiple correlation of 0.48 with leadership, indicating strong support for the leader trait perspective when traits are organized according to the five-factor model.

Luke McCormack, and David Mellor's (2002) study investigated the relation between the Five-Factor Model (FFM) of personality trait domains and leadership effectiveness. 99 Australian Army Commissioned Officers completed the NEO Personality Inventory Revised and were rated by their superior officer on the Australian Army Annual leadership effectiveness evaluation schedule. The results support the utility of the FFM in exploring the role of personality in leadership effectiveness among military leaders.

Paul T. Bartone, Scott A. Snook, and Trueman R. Tremble, jr. (2002) studied the U.S. Military Academy cadets to test the influence of cognitive and personality variables on military leadership performance over a four year period. A moderately stable cross-validated model reveals cognitive factors (college entrance scores, social judgment skills, and logical reasoning) and personality factors (agreeableness, and conscientiousness) contribute to later leader performance.

Smith, Mark Alan; and Canger, Jonathan M. (2004) studied the relationship with five-factor model of personality of supervisors (N=131) and aggregated attitudes of subordinates (N= 467). Overall, high levels of supervisor agreeableness, emotional stability and extraversion, plus lower levels of conscientiousness are related to subordinate ratings of satisfaction with supervisor, overall satisfaction, effective commitment and turnover intentions.

### **3.3 Personality Characteristics, Charismatic Leadership, Transformational Leadership, Transactional Leadership & Leadership Effectiveness**

Deanne N. Den Hartog et al's (1999) study focuses on culturally endorsed implicit theories of leadership (CLTs). Universally endorsed leader attributes, as well as attributes that are universally seen as impediments to outstanding leadership and culturally contingent attributes are presented in the study. The results support the hypothesis that specific aspects of charismatic transformational leadership are strongly and universally endorsed across cultures.

Timothy A. Judge, and Joyce E. Bono (2000) based on 14 samples of leaders from over 200 organizations, studied the relationship between five-factor model of personality and transformational leadership. Extraversion and agreeableness positively predicted transformational leadership; openness to experience was positively correlated with transformational leadership, but its effect disappears once the influence of the other traits was controlled. Neuroticism and conscientiousness were unrelated to transformational leadership.

Joyce E. Bono, and Judge, Timothy A. (2004) conducted a meta-analysis of the relationship between personality and ratings of transformational and transactional leadership behaviors. Using the five factor model of personality as an organizing framework, the researchers accumulated 384 correlations from 26 independent studies. Extraversion correlated 0.24 with transformational leadership. With respect to the other four big-five traits, the results are quite modest, indicating that the big five may not be the best way to discover personality antecedents of ratings of transformational and transactional leadership behaviors. Whereas broad personality taxonomy, such as the big five, can be useful framework for accumulating research results, it appears that more narrow or specific traits may be relevant in predicting and understanding transformational and transactional leadership.

Lim, Beng-Chong, and Ployhart, Robert E. (2004) examined the five factor model of personality, transformational leadership, and team performance under conditions similar to typical and maximum performance contexts.

Data was collected from 39 combat teams from an Asian military sample (n = 276) under training. The results suggest that transformational leadership is positively related to extraversion and negatively related to agreeableness and neuroticism, although in a multiple regression only neuroticism and agreeableness were predictive. Transformational leadership relates more strongly to team performance in the maximum rather than typical context.

Aditi Kejriwal, and Venkat R. Krishnan (2004) conducted an experiment with 140 students (97 males and 43 females) to observe the impact of the different Gunas and the Vedic world view on the magnitude of transformational leadership. There are three Gunas: Sattva (awareness), Rajas (dynamism) and Tamas (inertness). Gunas are fundamental ingredients or constituents in every being and each being is composed of all the three Gunas. When one of the three Gunas is dominant in a person that person is characterized by that guna. The Vedic world view operationalized as an understanding of Maya (existing bundle of inexplicable contradictions of the world) and belief in Karma (cause-effect chain or the basic law governing all actions). The results indicate Sattva and Vedic world view separately enhance transformational leadership whereas Tamas reduces it. Sattva-Rajas combination also enhances transformational leadership but the effect is not more than the effect of Sattva alone. Sattva and Vedic world view together do not enhance transformational leadership more than what Sattva alone does.

Leung, Sing Lim, and Bozoionelos, Nikos (2004) studied the relationship between five-factor model of personality and leadership in a sample of 101 Chinese origin individuals in Hong Kong. Extraversion was the trait most potently associated with the prototypical notion of the effective leader. And that notion was linked to the features of transformational leadership.

### **3.4 Personality Characteristics And Several Forms of Leadership And Leadership Effectiveness**

#### **3.4.1 Value Based Leadership**

Stephen R. Covey (1990) brings out the characteristics of Principle-centered leaders – a) they are continually

learning; b) they are service oriented; c) they radiate positive energy; d) they believe in other people; e) they lead balanced lives; f) they see life as an adventure; g) they are synergistic and h) they exercise for self-renewal.

Robert J. House, Andre Delbecq, and Tom W. Taris (1996) proposed value based leadership as an extension and integration of 1976 theory of charismatic leadership (House, 1977), the attributional theory of charisma (Conger and Kanungo, 1987), transformational theory (Burns, 1978; Bass, 1985), visionary theory of leadership (Bennis and Nanus, 1985; Sashkin 1988; Kousness and Posner, 1987), leader motive profile (LMP) theory (McClelland 1975) and assertions drawn from several psychological theories of motivation and behavior. The theory is based on meta proposition that nonconscious motives and motivation based on strongly internalized values is stronger, more pervasive, and more enduring than motivation based on instrumental calculations of anticipated rewards or motivation based on threat and avoidance of punishment. This theory is supported from data collected from twenty nine CEOs.

### **3.4.2 Ethical Leadership and Authentic Leadership**

Bernard M. Bass, and Paul Steidlmeier (1999) argue that to be truly transformational, leadership must be grounded on moral foundations. The four components of authentic transformational leadership (idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration) are contrasted with their counterfeits in dissembling pseudo-transformational leadership. The literature on transformational leadership is linked to the longstanding literature on virtue and moral characters, as exemplified by Socratic and Confucian typologies. It is related as well to the major themes of the modern western ethical agenda: liberty, utility, and distinctive justice.

Tommie Allison Mobbs (2002) investigated the relationship between ethical decision-making in organizations and individual personality variables, the organizational level variables of leadership and corporate social variable of moral intensity. Among other things the results indicate that the temperamental measures of Effortful Control and Affiliativeness were found to be significantly related to ethical decision making, and

explain more variance than the Big Five measures of Conscientiousness and Agreeableness. The situational variable of Moral Intensity had a significant influence on ethical decision-making.

Bruce J. Avolio and William L. Gardner (2005) provide an overview of the Leadership Quarterly 2005, special issue on Authentic Leadership. Next they present and discuss a table summarizing the key components of authentic leadership as described in the available literature. Using this table they proceed to differentiate authentic leadership from charismatic, transformational, spiritual and servant leadership. Their review suggests among other things, the need for research on the relationship between authentic leadership and the levels of self-awareness of leaders and followers.

Michael E. Brown and Linda K. Trevino (2006) reviewed the literature focusing on the emerging construct of ethical leadership and compared this construct with related concepts that share a common concern for a moral dimension of leadership (e.g., spiritual, authentic, and transformational leadership). Drawing broadly from the intersection of the ethics and leadership literatures, offered propositions about the antecedents and outcomes of ethical leadership. The authors also identified issues and questions to be addressed in the future and discussed their implications for research and practice.

### **3.4.3 Spiritual Leadership**

Nada Korac-Kakabadse, Alexander, Konzmin, and Andrew Kakabadse (2002) reviewed leadership praxis from the frames of wider spiritualities, linked spirituality search with contemporary managerial practices and surveyed the breadth of and commonalities within, varied philosophic positions with regard to the spiritual search.

Louis W. Fry (2003) developed a causal theory of leadership within an intrinsic motivation model that incorporates vision, hope/faith and altruistic love, theories of workplace spirituality and spiritual survival. Argues that spiritual leadership theory is not only inclusive of other major extant motivation based theories of leadership (path-goal leadership, charismatic leadership and transactional and transformational leadership), but that it is also more conceptually distinct, parsimonious, and less conceptually confounded. The purpose of spiritual leadership is to

create vision and value congruence across the strategic, empowered team and individual levels and ultimately to foster higher levels of organizational commitment and productivity.

Swami Dayananda Saraswati (2004) gives his commentary on four fold division of people on the basis of gunas explained in the Bhagavad Gita. All human beings, belonging to any part of the world possess three gunas-Sattva, Rajas, and Tamas in different proportions. Based on predominance of one of these gunas, people may be classified into four divisions. 1) The nature of Brahmin (priest) class is predominantly Sattva. His characteristics are composure, restraint, religious discipline, inner and external cleanliness, accommodation, straightforwardness, knowledge and accepting the veracity of the Vedas. 2) Valor, self-confidence, resolve, adroitness, not running from conflict, giving and overlord ship (leadership) are the naturally born duties and disposition of a Ksatriya (warrior) class. A Ksatriya has predominance of Rajas with Sattva as the secondary. 3) Agriculture, tending cattle, and commerce are the natural duties of a Vaisya. A Vaisya will also have a predominance of Rajas, but for him, Tamas is secondary. All traders, manufacturers, industrialists, etc come under this class. 4) The natural duty of Sudra is in the form of service. A Sudra will have a predominance of Tamas with Rajas as secondary. His activity consists of any type of service, which generally involves a lot of running around.

Sangeeta Parameshwar's (2005) study explores how the internally renowned human rights leaders pioneered social innovations through their non-violent, spiritual engagement with challenging circumstances. The study illuminates the spiritual generativity of ego-transcendental processes underlying the transformation of challenges into opportunities by these leaders in responding exceptionally to challenging circumstances. The uniformities underlying the universalistic aspects of exceptional responses, in turn, result from a horizontal across-autobiographies analysis. An integrative conceptual framework of spiritual leadership based on ego-transcendence is presented.

Laura Reave (2005) on a review of 150 studies shows that there is a clear consistency between spiritual values

and practices and effective leadership. Values that have long been considered spiritual ideals, such as integrity, honesty, and humility, have been demonstrated to have an effect on leadership success. Similarly practices traditionally associated with spirituality as demonstrated in daily life have also been shown to be connected to leadership effectiveness.

#### **3.4.4 Servant Leadership**

Horsman, John Henry's (2001) study identified servant-leadership as an emerging leadership model appropriate for the modern era and recognized a need for further quantitative study. The organizational leadership assessment and the dimensions of spirit instruments (OLA-DS) were combined and used to survey a sample of 608 members of thirty-four organizations of various types. Servant-leadership was found to exist in the organizations studied. A significant relationship was found between personal dimensions of spirit and servant-leadership.

#### **3.4.5 Level 5 Leadership**

Jim Collins (2001) and his team took up a research project that began in 1996 and set out to answer one question: Can a good company become a great company and if so, how? The research team analyzed 1,435 companies that appeared on the Fortune 500 from 1965 to 1995; and found 11 good-to-great examples. These 11 companies were headed by what Jim Collins calls, level 5 leaders. Level 5 leaders are shy and fearless build enduring greatness through a paradoxical combination of personal humility plus professional will.

#### **3.5 Ancient Wisdom and Some Great Leaders**

"Leaders as prophets, priests, chiefs, and kings served as symbols, representatives, and models for their people in the old and New Testaments, in the Upanishads, in Greek and Latin classics, and in the Icelandic sagas. The subject of leadership was not limited to the classics of western literature. It was of as much interest to Asoka and Confucious as to Plato and Aristotle." (Bernard M. Bass, 1990).

Joyce Meyer (2001) brings out the negative and positive conditions of heart as per the Bible. The negative conditions of Heart, which are to be avoided are 1) An Evil

Heart 2) A Hard Heart 3) A wicked, unbelieving Heart 4) A Deceived Heart 5) A Proud Heart 6) A presumptive Heart 7) A Hypocritical Heart 8) A Despising Heart 9) An Offended, Bitter, Resentful, Unforgiving Heart 10) A Foolish Heart 11) A Double Heart 12) A wounded Heart 13) A Faint Heart 14) A despiteful Heart 15) A Heavy or Troubled Heart 16) A Reasoning Heart 17) An Envious and Striving Heart 18) A Greedy, Lustful Heart 19) An Uncircumcised Heart 20) A Condemned Heart. The positive conditions of Heart, which are to be developed are 1) A Willing Heart 2) A Stirred Heart 3) A Wise Heart 4) A Perfect Heart 5) A Tender Heart 6) A Faithful Heart 7) A Fixed and Steadfast Heart 8) A Confident Heart 9) A Merry Heart 10) A New Heart 11) An Understanding Heart 12) A Purposed Heart 13) A Pondering Heart 14) A Forgiving Heart 15) An Open Heart 16) An Obedient Heart 17) A Believing Heart 18) An Enlarged Heart 19) A Pure Heart 20) The Heart of a Father.

Chakraborty S.K. (2001) presents the great sage Vivekananda's insights into a leader's qualities:

- A leader is not made in one life.
- We should eliminate selfishness.
- Carry out the duty silently.
- A leader must be a servant of servants.
- Know partiality to be chief cause of all evil.
- Leader should remain entirely impersonal.
- Do not try to lead but serve them.
- Kill self first if you want to succeed.

More than 5000 years back, a fierce battle depicted in "Mahabharata" was fought in India on the battlefield of Kurukshetra, not too far from the current capital of the country – Delhi. It was a conflict between cousins – Pandavas and Kauravas, in which Pandavas won. The commander-in-chief of the Kauravas was the grand old man named Bhishma who was loved and respected by the ruling elite of both the warring sides. He was severely wounded in the battle and lay dying on the battlefield. Krishna, the divine guide and strategic adviser of Pandavas, took them to pay homage to Bhishma and sought his advice on the art of leadership. Kamala Subramaniam (2001) presents what Bhishma spoke. Some of them are given below:

- A king's highest duty is to the Gods; next, of equal importance is Truth.

- A King's conduct should be above reproach.
- Self-restraint, humility, righteousness and straight forwardness are essential for his success.
- He should have his passions under perfect control.
- Justice should be the second nature of a King.
- His first duty is to his people, subordinating his own wishes and desires to those of people.
- The best King is one whose subjects live in freedom and happiness as they do in their father's house.
- Dharma (right conduct) is the watchword of a King. Nothing more is more powerful.
- To the extent you yield or diminish dharma, to that degree disintegration sets in.

### 3.6 Follower Self, Personality, and Identity

Tiffany Keller (1999) examined individual differences in implicit leadership theories as a function of personality traits and perceived parental traits. His findings are, individuals characterize a leader similar to self as ideal. Further leadership images mirror descriptions of parental traits.

Followers are assumed to use implicit leader prototypes when evaluating leader behavior. Cross-cultural theorists suggest that these leader prototypes are influenced by National culture. To test this relationship, Kristina K. Helgstrand and Alice F. Stuhlmacher (1999) examined leader prototypes in a cross-cultural study with Danish and American participants. These two cultures have been found to differ significantly on two major cultural dimensions: Individualism and Masculinity.

Epitropaki, Olga and Martin, Robin (2004) found a six factor structure (Sensitivity, Intelligence, Dedication, Dynamism, Tyranny, and Masculinity) to most accurately represent Implicit Leadership Theories (ILTs) in organizational settings. Regarding the generalizability of ILTs, although the six factor structure was consistent across different employee groups, there was only partial support for total factorial invariance. Finally, evaluation of gamma, beta and alpha change provided support for ILTs' stability over time.

#### 4. Research Methodology

The study on theme of leadership and personal characteristics has a wide canvas. The size of such a canvas is so huge that theme had to be restricted to a public sector unit which is into defence electronics, a Navaratna unit, spread across Indian Union and an equal opportunity employer. The company has an employee size of 13,000. The company's revenue is about Rs 30 billion. The products range from electronic components to electronic equipments and big systems. About 75 % of the products are supplied to defense and the remaining to civilian segment.

##### Target Group:

The number of people in the middle level managerial position was 1,384 who form the target group. They are in grades IV, V, VI and VIA and are well qualified. Most of the executives are engineers (holding Masters or Bachelors degrees and/or Diploma in engineering) and the remaining are qualified Finance and HR executives.

##### Sample selection:

The target group elements were selected without any bias. Using two-way weighted stratified sampling method, 350 middle level executives were chosen from the target group, as the sample. The enumeration was done in an environment which made them reveal their impressions on the questionnaire.

The respondents were first asked to fill in two questionnaires: Neo PIR and Multi-factor leadership questionnaire – leader form (5X short) and then were asked to take 15 minutes tea break. After the break two more questionnaires were filled in viz., SRT Version 3 'L', 050504 (gunas questionnaire) and DD Version 4,050504 (divine & demoniac qualities questionnaire). The whole process took nearly two hours in each location.

The respondents were also given a packet of ten sets of questionnaires to get response from subordinates, peers and superiors. A covering letter to be signed by the leader was also given along with each set of two questionnaires. The questionnaires are: (1) Multifactor leadership questionnaire rater form (5X – short) and (2) SRT Version 3'0'050504. They were asked to send the responses to the researcher.

Following is the consolidated list of questionnaires filled in by the leaders and others (sub-ordinates, peers and superiors):

##### Leader:

- NEO PI-R (Self rating)
- Multifactor leadership questionnaire – Leader form (self rating)
- SRT Version 3'L' – 050504 (self rating)
- DD version 4, 050504 (self rating)

##### Others (sub-ordinates, peers and superiors):

- Multifactor leadership questionnaire – rater form (others' rating on leader)
- SRT Version 3'0'050504 (self rating)

The data collected through multifactor leadership questionnaire is checked for number of blanks per respondent. Responses from any respondent having more than seven blanks are discarded. Other questionnaires have also been checked for number of blanks. By discarding leaders' data due to more blanks than the criteria defined for each questionnaire (i.e., gunas, divine & demoniac qualities, Big Five and multifactor leadership questionnaire), 330 leaders' data is retained. For each of these 330 leaders it was checked, how many raters (others) returned valid multifactor factor leadership questionnaires. If there are less than four raters for each leader that leader's data is dropped for further analysis. This step involved dropping of 60 leaders' data. Ultimately, data on 280 leaders (and others) were retained for further analysis.

#### 4.1 Validation of Five-Factor Structure in The Indian Context

The researcher has not come across any research study confirming the validity of Five Factor model in Indian context. It is, there fore, felt necessary to do so, with the data obtained from the middle level executives, in the current research study.

Using Form S, Revised NEO Personality Inventory (NEO PI-R) data was collected from 330 middle level executives from nine units of a multi unit electronics engineering public company in India. The units are spread over the country, representing various regional cultures.



The data is fed into the SPSS 9 software package to carry out factor analysis. The objective is to verify whether the thirty facets of Big Five converge to five factors in the current sample, so that these five factors can be used in further analysis of the research. The factor analysis yielded eight factors against five factors which are to be expected in Five Factor model. Further it is seen that there is mixing up of the facets of Neuroticism (N1-N6), Extraversion (E1-E6), Openness (O1-O6), Agreeableness (A1-A6) and Conscientiousness (C1-C6).

An attempt has been made to derive five factors by eliminating the facets which are clearly not converging into one of the eight factors. By successive iterations the best set came out with eighteen facets (variables) converging to five factors. Factor 1 comprised of E4- Activity, C1- Competence, C2- Order, C3- Dutifulness, C4- Achievement Striving, C5- Self-discipline and C6- Deliberation. Factor 2 comprised of E6- Positive Emotions, O1- Fantasy, O2- Aesthetics and O3- Feelings. Factor 3 comprised of N2- Angry Hostility, N5- Impulsiveness and O4- Actions. Factor 4 comprised of A2- Straightforwardness and A5- Modesty. Factor 5 comprised of N4- Self-Consciousness and A6- Tender-Mindedness.

Since the above factors are very much in variance with the Five Domains of NEO PI-R, use of these factors further in the research would have the problem of comparisons with prior research. Further, Factors 4 & 5 have only 2 facets each and Factor 3 has only 3 facets and therefore may not give good reliabilities. In view of these considerations all the thirty facets have been used, in further analysis, instead of five Factors.

## 4.2 Development of Questionnaires

The Bhagavad-Gita is the most beloved scripture of India, a scripture of scriptures. It is the Hindu's Holy Testament, or Bible, the one book that all masters depend upon as a supreme source of scriptural authority (Parmahansa Yogananda, 2002).

The Bhagavad Gita has been referred to look for concepts/philosophies pertaining to Personality and Spiritual growth. Chapters 17 and 18 contain in detail the nature of a person, called 'gunas'. Chapter 16 contains description of Divine and Demonic qualities of a person. Higher the

divine qualities and lower the demonic qualities, greater is the spiritual progress of a person. Gunas provide an alternative framework of personality, which is anticipated to be a better framework for leadership studies. In view of the extensive interest in Spiritual leadership in recent years, it is believed that study of divine and demonic qualities would complement the current understanding of the subject. Details of the development of two questionnaires-1) gunas and 2) divine and demonic qualities are presented in the following two sections.

### 4.2.1 Development of Gunas Questionnaire

The gunas framework is introduced in chapter 14 of Bhagavad Gita (Parthasarathy A., 1992). The three gunas – Sattva, Rajas, and Tamas, together constitute every human being. Sattva is stainless, pure, and brilliant. When Sattva predominates over rajas and tamas in a person wisdom beams forth in his expression. Rajas is the nature of passion which creates a craving for what you do not possess and an attachment to what you possess. When rajas predominates over sattva and tamas, the person develops greed, becomes involved in endless activity and suffers from mental unrest. Tamas arises out of ignorance. It manifests as delusion, inertness, and heedlessness.

Sattva binds people through attachment to knowledge and happiness. Rajas binds through attachment to action. Tamas, veiling knowledge, binds through heedlessness, indolence and sleep.

Each one of these three distinct personality factors (gunas) are differentiated on 12 facets – 1) sraddha (faith) 2) Ahara (food) 3) yajna (sacrifice) 4) tapa (austerity) 5) dana (gift) 6) tyaga (relinquishment) 7) Jnana (knowledge) 8) karma (action) 9) karta (doer) 10) buddhi (intellect) 11) dhrti (steadfastness) 12) sukha (happiness). Thus, for example sattvic dana, rajasic dana and tamasic dana are three different concepts or dimensions. Even though dana (charity) aspect is apparently common in all these three, they are separately distinguishable. Therefore, the three guna factors can be explained through 36 (12 facets each in 3 gunas) dimensions. These details are covered in chapters 17 and 18 of Bhagavad Gita.

There were attempts to operationalize gunas framework into questionnaires (Das R. C., 1987; Das R. C., 1991;

Parvinder Kaur, and Arvind K. Sinha, 1992; and Narayanan and Krishnan, 2001). Full details of these questionnaires are not available to the researcher. However, it appears, these questionnaires do not cover all the 36 dimensions as given in the Gita. The present attempt is to cover all 36 dimensions as given in the Gita.

Using a sample of nearly 2,000 respondents (executives from a multi-unit public company in the manufacture of high tech electronic components and equipments in India), the questionnaire has been developed. Using Factor analysis some of the facets (out of 36 facets) not clearly associated with one of the factors have been dropped and finally an optimized solution came wherein 17 facets (variables) are retained. The total variance explained by the top three factors is 50.26%. The desirable loadings of the variables are in the range of .61 to .77. The cross loadings are generally much lower than .3 (one value is .32) indicating very good discriminant validity. This questionnaire contains as many as sixty eight questions.

The reliabilities of the sattvic, rajasic and tamasic factors have been checked and the Cronbach's alphas are .84, .74 and .69 respectively.

#### 4.2.2 Development of Divine & Demonic Qualities Questionnaire

Values, character and spiritual orientation have been identified as the attributes of a leader in the recent leadership studies, particularly studies connected with Spiritual leadership. Divine and demonic qualities of a person are given under verses 1 to 4 of chapter 16 of the Bhagavad Gita. To prepare oneself for self realization, it is necessary to cultivate divine qualities and eliminate demonic qualities. The concepts of divine and demonic qualities appear to be similar to values and character of an effective leader. There fore understanding of divine and demonic qualities may be useful in leadership studies.

Using a sample of 330 respondents (executives from a multi-unit public company in the manufacture of high tech electronic components and equipments in India), the questionnaire has been developed. Using Factor analysis some of the qualities (out of a total of 32 divine & demonic qualities) not clearly associated with one of the factors

have been dropped and finally an optimized solution was retention of nineteen qualities (variables) retained. These nineteen qualities converged into four factors and total variance explained by these top four factors is 58.93%. The desirable loadings of the variables are in the range of .57 to .87. The cross loadings are less than .35 (except in two cases) indicating good discriminant validity. Factor 1 comprises of nine variables (Fearlessness, Uprightness, Harmlessness, Truth, Compassion, Spiritual lustre, Endurance, Purity, and Absence of malice) and seeing the nature of these variables, this factor is named as 'Holistic'. Factor 2 comprises of 4 variables (Steadfastness, Self-study, Austerity, and Renunciation) and is named as 'Duty minded'. Factor 3 comprises of four variables (Hypocrisy, Arrogance, Self-conceit, and Over pride) and is named as 'Egoistic'. Factor 4 comprises of only two variables (Absence of anger, and Absence of fickleness) and may be considered for dropping. However, since the desirable loadings are high this factor is retained and named as 'Equanimity'. This questionnaire contains seventy six questions.

The reliabilities of factors 1 to 4 have been checked and the Cronbach's alphas are .87, .81, .72, and .59 respectively.

### 5. Results

The present research investigation studied the relationships between personality characteristics and leadership effectiveness and between personality characteristics and leadership styles. Personality characteristics are analysed in terms of thirty facets of Big Five and in terms of new tools developed viz., gunas and divine & demonic qualities. Some of the major findings are given below:

#### 5.1 Personality Characteristics and Leadership Effectiveness:

##### 1. Thirty Facets of Big-Five:

- a. The following facets of Big-Five are positively related to leadership effectiveness (based on self ratings):

Warmth	(facet of extraversion)
Gregariousness	(facet of extraversion)
Assertiveness	(facet of extraversion)

Activity	(facet of extraversion)
Positive emotions	(facet of extraversion)
Aesthetics	(facet of openness)
Feelings	(facet of openness)
Ideas	(facet of openness)
Trust	(facet of agreeableness)
Altruism	(facet of agreeableness)
Competence	(facet of conscientiousness)
Order	(facet of conscientiousness)
Dutifulness	(facet of conscientiousness)
Achievement striving	(facet of conscientiousness)
Self-discipline	(facet of conscientiousness)
Deliberation	(facet of conscientiousness)

b. The following facets of Big-Five are negatively related to leadership effectiveness (based on self ratings):

Anxiety	(facet of neuroticism)
Angry hostility	(facet of neuroticism)
Depression	(facet of neuroticism)
Self-consciousness	(facet of neuroticism)
Impulsiveness	(facet of neuroticism)
Vulnerability	(facet of neuroticism)

c. Functional areas (D&E and Production) and geographical areas (Ghaziabad city from North India and Bangalore City from South India), have significant effect on the relationship between facets of Big-Five and leadership effectiveness, probably due to different cultures or some other factors.

d. Values of correlation between facets of Big-Five and leadership effectiveness are generally higher in respect of D&E functional area (mostly comprising engineers) compared to Production functional area (comprising engineers, technicians, skilled and semiskilled workers).

e. When self ratings of leaders are taken into consideration, it is found that positive correlation values of 'Warmth', 'Altruism', 'Dutifulness', 'Achievement striving' & 'Self-discipline' and negative correlation values of 'Anxiety' & 'Vulnerability' are relatively consistent across functional and geographical areas.

f. Based on self ratings, it is found that sixteen facets of Big-Five ('Anxiety', 'Angry hostility', 'Depression', 'Self-consciousness', 'Vulnerability',

'Warmth', 'Gregariousness', 'Assertiveness', 'Positive emotions', 'Altruism', 'Competence', 'Order', 'Dutifulness', 'Achievement striving', 'Self-discipline' and 'Deliberation') are having positive or negative correlation of 0.30 or greater with leadership effectiveness.

g. The source of data (self ratings vs. others ratings) has a heavy influence on the relationship between the facets of Big-Five and leadership effectiveness.

### 2. *Gunas and Divine & Demonic Qualities:*

a. Sattvic guna, 'Holistic' quality, 'Duty minded' quality and 'Equanimity' quality are positively related to leadership effectiveness (based on self ratings).

b. Tamasic guna and 'Egoistic' quality are negatively related to leadership effectiveness (based on self ratings).

c. Functional areas (D&E and Production) and geographical areas (Ghaziabad city from North India and Bangalore city from South India) have significant effect on the relationship between gunas, divine & demonic qualities and leadership effectiveness, probably due to different cultures or some other factors.

d. When self ratings of leaders are taken into consideration, it is found that positive correlation values of 'Holistic' quality, 'Equanimity' quality and negative correlation values of tamasic guna are relatively consistent across functional and geographical areas.

e. The source of data (self ratings vs. others ratings) has heavy influence on the relationship between gunas, divine & demonic qualities and leadership effectiveness.

### 3. *Personality Characteristics (Thirty Facets, Gunas and Divine & Demonic Qualities):*

Multiple-regression is carried out to examine the extent to which (a) all the facets of Big-Five, (b) gunas and (c) divine & demonic qualities predicted the leadership effectiveness. Adjusted R<sup>2</sup> (N = 280, self ratings) came out to be 0.31, 0.21 and 0.25 in respect of thirty facets, gunas and divine & demonic qualities respectively. These figures indicate fairly good predictive ability of

thirty facets of Big-Five, gunas and divine & demoniac qualities. These results may be compared to the meta-analysis carried out by Timothy A. Judge et al. (2002) where in he reported the combined effect of all the five domains of Big-Five having a standardized regression coefficient of 0.39 (not adjusted R2)

Many reviewers of the literature consider trait theory to be obsolete (e.g., Conger and Kanungo, 1998). Although, other reviewers of the literature have argued in favour of trait theory (e.g., Kirkpatrick and Locke, 1991 and Timothy A. Judge et al., 2002). The findings of this research strongly support the utility of the study of personality characteristics in predicting leadership.

## 5.2 Personality Characteristics and Leadership Styles:

### 1. *Thirty Facets of Big-Five:*

- a. A large number of thirty facets are related to 'Transformational', 'Contingent reward', 'Management by exception (Active)' and 'Passive' leadership styles.
- b. Based on self ratings, it is found that thirteen facets ('Vulnerability' (negative value), 'Warmth', 'Gregarious-ness', 'Assertiveness', 'Positive emotions', 'Aesthetics', 'Ideas', 'Trust', 'Altruism', 'Competence', 'Dutifulness', 'Achievement striving' and 'Self-discipline') are having correlations of 0.3 or greater in respect of 'Transformational' leadership.
- c. Based on self ratings, it is found that ten facets ('Vulnerability' (negative value), 'Warmth', 'Assertiveness', 'Positive emotions', 'Trust', 'Altruism', 'Competence', 'Dutifulness', 'Achievement striving' and 'Self-discipline') are having correlations of 0.3 or greater in respect of 'Contingent reward' leadership.
- d. Based on self ratings, none of the thirty facets of Big-Five are having correlations of 0.3 or greater in respect of 'Management by exception (Active)'.
- e. Based on self ratings, six facets viz., 'Depression', 'Vulnerability', 'Assertiveness' (negative value), 'Order' (negative value), 'Achievement striving' (negative value) and 'Self-discipline' (negative value) are having correlations of 0.3 or greater in respect of 'Passive' leadership.

- f. Joyce E. Bono et al. (2004) reported weak correlations between broad domains of Big-Five and leadership styles. The high correlation values in the current research may be due to narrow facet level analysis and may to some extent due to common method biases in self reports.

### 2. *Gunas and Divine & Demoniac Qualities:*

- a. Sattvic guna, 'Holistic', 'Duty minded' and 'Equanimity' qualities are positively related (correlation values are 0.2 or greater based on self ratings) to 'Transformational' and 'Contingent reward' leadership styles.
- b. Tamasic guna is negatively related (correlation values are 0.25 or greater based on self ratings) to 'Transformational' and 'Transactional' leadership styles and positively related (correlation value is 0.40 based on self ratings) to 'Passive' leadership style.
- c. Sattvic guna and 'Holistic' quality are negatively related (correlation values are 0.25 or greater based on self ratings) to 'Passive' leadership styles.

### 3. *Personality Characteristics (Thirty Facets, Gunas and Divine & Demoniac Qualities):*

Multiple-regression is carried out to examine the extent to which (a) all the facets of Big-Five, (b) gunas and (c) divine & demoniac qualities predicted the leadership styles. Adjusted R2 values indicate fairly good predictive ability of thirty facets of Big-Five, gunas and divine & demoniac qualities in predicting 'Transformational', 'Contingent reward' and 'Passive' leadership styles. Adjusted R2 values in respect of 'Transformational' & 'Contingent reward' styles are in the range of .2 to .3; and in respect of 'Passive' leadership style are in the range of .1 to .2. However, 'Management by exception (Active)' is not predictable with the personality variables.

Bono Joyce E. et al (2004) reported Adjusted R2 values of 0.09, 0.03, 0.01 and 0.03 in respect of 'Transformational', 'Contingent reward', 'Management by exception (Active)' and 'Passive' leadership styles when combined effect of all the broad five domains of Big-Five is measured. The high values of current research may be due to narrow facet level analysis and may to some extent due to common method biases in self reports.

### 5.3 Implicit Leadership Theories

The effect of Implicit Leadership Theories (ILTs) on the ratings of others (subordinates, peers and superiors) while rating the leader's effectiveness and styles are investigated by using gunas framework. For this purpose both others and leaders are classified as sattvic or non-sattvic raters. Sattvic raters are those having predominantly sattvic guna/personality.

While rating non-sattvic leaders, the ratings (on leadership styles and effectiveness) given by either sattvic rater or non-sattvic rater are similar. However, while rating sattvic leaders, the ratings given by sattvic raters are higher (more than double) compared to the ratings given by non-sattvic raters (exception being the ratings of 'Passive' leadership style, which is unaffected). This is an important finding in the area of ILTs.

In view of the findings on ILTs in the current research, the use of Others' (subordinates, peers and superiors) ratings in leadership research becomes questionable. In the current research both Self and Others' ratings have been obtained; however, Self ratings are preferred as they were obtained with a few necessary precautions.

### 5.4 Instruments Used for Measuring Personality Characteristics

*Validation of Big-Five construct in the Indian context:*

Big-Five questionnaire, when used in the current sample, consisting of executives from different parts of India of a multi-unit public company, the thirty facets did not converge into the five domains (refer section 3.4). This finding raises questions about the use of five domains of Big-Five across countries/cultures.

*Development of New Instruments:*

Based on the philosophy given in Bhagavad Gita, gunas and divine & demoniac qualities questionnaires have been developed with good reliability and discriminative properties (refer section 3.5 and 3.6). These instruments can be used for selection, placement and leadership development.

### 6. Limitations and Future Research

- The instrument used for effectiveness (MLQ) is not comprehensive in capturing all aspects of

leadership. Effectiveness is captured through only four questions. Further, these ratings represent individuals' perceptions of leadership effectiveness rather than objectively measured performance outcomes and they are influenced by raters' implicit leadership theories.

- Although some remedial measures are taken to minimise common method biases while capturing self ratings of leaders' personality characteristics (thirty facets of Big-Five, gunas and divine & demoniac qualities) and leadership styles and effectiveness, further measures may be taken including statistical remedies.
- Post facto test of randomness was carried out taking age as control variable. The null hypothesis was rejected at  $P = .002$ .
- Further research on other populations and in other contexts is needed to establish the external validity of the findings.
- Questionnaire method is popular in research due to convenience. However, personality characteristics being deeper level characteristics, other methods like projective techniques may be used.
- Further research may be undertaken to develop a robust and comprehensive leadership effectiveness measurement tool free from impact of implicit leadership theories.
- Further research may be undertaken with research designs controlling leader's other characteristics/competencies (other than personality characteristics) and incorporating different contextual factors.
- Since gunas and divine & demoniac qualities are based on a clear philosophy (from Bhagavad Geeta), their use in leadership research would not only help in finding factors responsible for effective leadership but would also help in developing leaders on those factors/facets.
- Further research may be undertaken to test the gunas and divine & demoniac qualities instruments in different populations and settings.
- The current research has looked at broad domains of gunas and divine & demoniac qualities. However, in

view of encouraging results in the use of facets of Big-Five, the instruments may be refined to measure facets of gunas and divine & demoniac qualities.

- Research may be undertaken to develop specific training strategies and training programmes to develop the personality characteristics associated with effective leaders, which have been identified in the current research.

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