THE FIELD OF PERSONALITY ADDRESSES THREE ISSUES: (1) HUMAN UNIVERSALS, (2) INDIVIDUAL DIFFERENCES, AND (3) INDIVIDUAL UNIQUENESS, OF WHICH FIRST RELATES WITH WHAT ARE UNIVERSAL FEATURES OF HUMAN NATURE? SECOND DEALS WITH HOW DO PEOPLE DIFFER FROM ONE ANOTHER, AND THE THIRD RELATES TO THE UNIQUENESS OF AN INDIVIDUAL AND HOW IT CAN BE EXPLAINED IN SCIENTIFIC MANNER. THESE THREE ISSUES HAVE BEEN ADDRESSED IN TERMS OF VARIOUS PERSPECTIVES I.E. PSYCHODYNAMIC, HUMANISTIC, LEARNING, COGNITIVE, AND TRAIT. AMONG THESE TRAIT APPROACH HAS CONTRIBUTED MOST IN UNDERSTANDING THE VARIOUS ASPECTS OF PERSONALITY. THE PERSONALITY PSYCHOLOGISTS ARE BASICALLY ORIENTED (1) TO OBSERVE PEOPLE SCIENTIFICALLY AND TO DEVELOP THEORIES THAT ARE (2) SYSTEMATIC, (3) TESTABLE, (4) AND COMPREHENSIVE; AND TO CONVERT THE DATA BASED THEORY INTO PRACTICAL APPLICATIONS. TO ADDRESS THE ABOVE MENTIONED ISSUES AND TO PROVIDE COMPREHENSIVE EXPLANATION OF PERSONALITY, THE PERSONALITY PSYCHOLOGISTS HAVE RESEARCHED VARIOUS ASPECTS OF PERSONALITY: (1) PERSONALITY STRUCTURE-----THE BASIC UNITS IN BUILDING BLOCKS OF PERSONALITY, (2) PROCESS-----THE DYNAMIC ASPECTS OF PERSONALITY INCLUDING MOTIVES, (3) GROWTH AND DEVELOPMENT-----HOW ONE DEVELOPS INTO AN UNIQUE PERSON; AND (4) PSYCHOPATHOLOGY AND BEHAVIOUR CHANGE. HOW PEOPLE CHANGE AND WHY THEY SOMETIMES RESIST CHANGE OR ARE UNABLE TO CHANGE.

cultural and social factors in moderating the nature of traits. In addition, trait theory is only one scientific paradigm for personality research.

The basic tenets of modern trait theory, in their contemporary form, are very clear and well established, they owe much to three founding fathers of trait psychology: Gordon Allport, R. B. Cattell, and Hans. J. Eysenck. Enrichment of trait approach has been further contributed by so many scholars notably McCrae and Costa, and Zuckerman. At the outset, Allport (1937) embarked, “In everyday life, no-one, not even a psychologist, doubts that underlying the conduct of a mature person there are characteristic dispositions or traits.” Allport defined a trait or disposition as ‘a generalized neuropsychic structure peculiar to the individual, with the capacity to render many stimuli functionally equivalent and to initiate and guide consistent forms of adaptive and stylistic behaviour.” Allport took idiographic stance on traits whereas rest of trait theorists took nomothetic stance that seeks to quantify traits that are meaningful for all individuals.

Nomothetic approach to traits much owes to R. B. Cattell (e.g. Cattell, 1973; Cattell & Kline, 1977) who articulated that main attributes of personality may be described by a number of discrete dimensions. Cattell’s theory strongly linked to quantitative measurement models based on factor analysis of three sources of data-----L-data, Q-data, and T-data. Cattell’s conceptualization of personality is based on four attributes. First, the trait as a latent construct with causal force, the source trait; distinguished from superficial regulations in behaviour or surface traits. Second, personality models should be hierarchical. Third, the personality sphere should be differentiated from other domains of individual differences, including ability, sentiments, and transit mood states. Fourth, the influence of traits on behaviour is moderated by situational factors. These four characteristics of Cattellian theory as mentioned above have been key principles for most contemporary trait theories.

Another founding trait theorist is Eysenck (Eysenck, 1957, 1967) who debated with Cattell on optimal number of factors. Eysenck mainly focused on three broad dimensions: extraversion, neuroticism and psychoticism, as compared to Cattell’s 16 primary factors and several secondary factors (Boyle, 2006). This debate appears to be more apparent than real, since both have focused on measurement at different
levels within the hierarchical trait model. There is communally between Cattellian second-order factors and Eysenckian three broad dimensions, so Cattell’s and Eysenckian constructs and theories need to be seen, not as mutually contradictory, but as complementary and mutually supportive (Eysenck, 1984). Eysenck attempted to ground traits in heritable properties of brain. In addition, Eysenck made use of empirical studies to test the relationship between traits and behaviour—and the moderating role of situational factors in controlled experiments. Central to Eysenck’s program was empirical investigation what these days are called consequential outcomes (Ozer & Benet-Martinez, 2006), the real-life outcomes in relation to mental health, academic and work accomplishments and social relationships.

Five Factor model is the default model of personality structure, guiding not only personality psychologists, but increasingly, developmentalists (Kohunstamm et al., 1998), cross-cultural psychologists (McCrae & Alrk, 2002), organizational psychologists (Judge et al., 1999), and clinicians (Sunger, 2005). It has become the most widely accepted solution to the problem of describing trait structure, and relations among the traits. Trait adjectives describe individual differences that usually show a bell-shaped distribution. It was Cattell’s early pioneering work that served as the starting point for subsequent lexically based development of the present popular five factor model of personality structure which indexes 30 facets and five dimensions labeled as Neuroticism (N), Extroversion (E), Openness to experience-intellect (O), Agreeableness (A), and Conscientiousness (C). The FFM dimensions have been derived from various factor analytic studies of self-report and peer reports of adjectives and questionnaire personality-related data (Costa & McCrae, 1992). Costa and McCrae have developed a Neo-Personality Inventory and NEO-FFI for indexing the five broad dimensions of personality. The present study has also used NEO-FFI to index the five broad traits of FFM among Indian subjects.

Zuckerman (1988, 1991, 1993) developed an alternative five factor model (AFFM) which appears to be similar to FFM but not identical. Five factors described in AFFM are Neuroticism-Anxiety, Aggression-Hostility, Impulsive-Sensation Seeking, Activity, and Sociability. Zuckerman in collaboration with Kuhlman has developed ZKPQ for the measurement of alternative factors (Zuckerman et al., 1993)
which consists of 5 content scales plus an Infrequency Scale. It consists 99 items for these scales.

Majority of trait researchers have subscribed a set of basic assumptions for the development of their trait models (Mathews et al., 2003; Pervin, 2002; Boyle et al., 2008). The first assumption is that traits are relative stable, continuous, dimensional qualities that require psychometric basis meeting the standard criteria for reliability and validity. The present study also intends to examine the existence of alternative five factors among Indian subjects, and to ascertain the reliability and validity of ZKPQ scales for these five dimensions.

Second assumption or principle pertains to the genetic basis for traits that requires support from behaviour genetic and molecular genetic evidence. It is not taken up in the present study.

Third principle is about the generality of expression of traits depicting that traits correspond to individual differences evident in all environments, cultures, and psychosocial factors including real-life contexts i.e. health, work and relationship (Boyle et al., 2008). The present study also intend to ascertain the generality of alternative five traits of AFFM among the Indian contexts.

The fourth principle is interactionism (Endler, 1983) depicting that it is necessary to accommodate the role of situations in moderating the trait’s expressions, personality development, and matching of traits against jobs, therapies, teaching styles etc. The present study is not sticking to this principle.

Since the AFFM is the recent one among the trait models, so it is necessary to ascertain the generality of its factors across the cultures. Cross-cultural replicability is an important criterion of validity for personality models like FFM and AFFM that claim personality is biologically rooted and should be universal (Rossier et al, 2005, 2007). This equivalence may be studied at a structural level or at a metric or scalar level. Over the past decades, a good number of cross-cultural studies have been conducted and confirmed the high structural equivalence of FFM (Allik, 2005; McCrae et al, 2005; Rolland, 2002). The studies for the cross-cultural equivalence of AFFM are less in number. However, several translations of ZKPQ are available. Goma-i- Freixnet et al. (2004) made the first study in this regard by comparing the
structure obtained in Italian sample with the normative American structure. For women, the congruence coefficients for all the factors were above the factorial replication threshold of .85 (Haven & Ten Berge, 1997). For men, congruence coefficients of two factors i.e. Impulsive-Sensation Seeking and Aggression-Hostility were equal to or below this threshold. Recently, Rossier et al. (2007) studied the cross-cultural generalizability of AFFM on a sample of 9152 subjects from six countries i.e. China, Germany, Italy, Spain, Switzerland and USA. Internal consistencies for all countries have been found generally similar to those found in normative American structure and replicated in all cultures; however, the congruence coefficients were slightly lower in China and Italy. A similar analysis at the facet level confirmed the high cross-cultural replicability of AFFM. The mean score differences across countries were very small depicting the universality of five dimensions of AFFM. The present study also intends to ascertain the emergence of five factors of AFFM among Indian subjects.

It has also been observed that a number of studies have been conducted to explore the convergence of AFFM with FFM and PEN model. More recently, Aluja et al., (2002) compared AFFM with FFM using ZKPQ and NEO-PI-R (Costa & McCrae, 1992). Considering only correlations above .40, they found that Impulsive-Sensation Seeking correlated negatively with Conscientiousness (r=-.53), Neuroticism-Anxiety correlated positively with Neuroticism (r=.81), Aggression-Hostility correlated negatively with Agreeableness (r=-.59) and Sociability correlated positively with Extraversion (r=.66). Similar findings have also been reported by several researchers (Blanch & Aluja, 2011; Kumar, 2011). Thus, four dimensions of the AFFM and of the FFM appear quite similar, and the differences between these two models is the presence of a single dimension in each model that has no conceptual equivalent counterpart (Joireman & Kuhlman, 2004; Zuckerman et al, 1993). Indeed, Openness to experience of NEO-PI-R is represented poorly in ZKPQ and Activity of ZKPQ represented poorly in NEO-PI-R. Angleitner et al. (2004) studied a sample of 338 pairs of adult twins reared together and found that heritability of factors indexed by ZKPQ ranged from .43 to .51. These results are similar to those found for FFM (McCrae, et al., 2001). In relation to PEN model, studies reveal that Psychoticism correlated positively with Impulsive-Sensation Seeking and Aggression-
Hostility; Neuroticism correlated positively with Neuroticism-Anxiety, Aggression-Hostility and Work Activity; and Extraversion correlated positively with Sensation Seeking, Sociability and Activity (Zuckerman et al., 1993). The present study also intends to examine the convergence/compatibility of AFFM with Cattellian, Eysenckian, and Five Factor models of personality.

Throughout the history of overlapping trait models of personality, hierarchical organization of traits has been one of the important issues (Raad, 2009). Cattell, Eysenck and others have proposed the hierarchical organization of personality in their models. Some researchers have also been conducted to ascertain the hierarchical organization of facets/traits in FFM and AFFM. The present study also intends to examine the hierarchical and organization of personality dimensions of AFFM in data from Indian subjects. Review of literature related to AFFM clearly reveals that none of the systematic study has been conducted for the verification and cross-cultural replication of five factors of AFFM and its convergence with other trait models of personality in Indian perspective. Hence, the present study has been designed to verify the existence of five factors of AFFM, cross-cultural replicability of alternative five factors; and convergence of AFFM with Cattellian, Eysenckian, and FFM models of personality in data from Indian subjects.

Problem:

The precise title of the problem is stated as:

VERIFICATION OF ZUCKERMAN'S ALTERNATIVE FIVE FACTOR MODEL OF PERSONALITY ON INDIAN SAMPLE

Objectives:

Main objectives of the study are:

1. Verification of five factors of Alternative Five Factor Model in Indian language context.
2. Examination of hierarchical organization of five factors of Alternative Five Factor Model.
3. Investigation of convergence/compatibility of AFFM with Cattellian model of personality.
4. Investigation of convergence/compatibility of AFFM with Eysenckian model of personality.
5. Investigation of convergence/compatibility of AFFM with Five Factor model of personality.

6. Cross-cultural comparison of present findings with those of conducted in other cultural settings.

7. Examination of gender differences in five factors of AFFM among Indian subjects, if any.

**Hypotheses:**

Specific hypotheses are as under:

1. Alternative Five factors of AFFM are expected to be verified as such in data from Indian subjects.
2. Two super factors of AFFM are expected to be verified in data from Indian subjects.
3. Cattellian model and AFFM are expected to have some overlap with each other.
4. Eysenckian three dimensions are expected to be inclusive of AFFM’s five factors.
5. FFM and AFFM are expected to have some overlap with each other.
6. Findings of present study are expected to be comparable to those of other cultural settings.
7. Male and Female subjects are expected to differ on five factors of AFFM.

To realize the main objectives of the study, first of all Zuckerman-Kuhlman Personality Questionnaire (ZKPQ) was first translated in Hindi using back translation method i.e translation of original items in Hindi; and then back translation of Hindi Version in English under the supervision of a team of Professors of English, Hindi, and Psychology. Three versions of ZKPQ---Original, Hindi Version, and Retranslated English Version were used.

For the first part of the study (Verification of five factors of AFFM on Indian sample), three versions of ZKPQ were administered on a sample of 500 students (250 males and 250 females) drawn from P.G. Departments of various colleges and universities of North India. Subjects included in sample were bilingual (English and
Subjects ranged in age from 18 to 24 years with the mean age of 21.96 years.

In the second part of the study convergence of five factors of AFFM indexed by ZKPQ-H with 16 primary factors of Cattell’s model, three dimensions of Eysenckian Model and five factors of McCrae and Costa’s FFM was examined by administering ZKPQ-H, 16 PF, EPQ-R, and NEO-FFI on a sample of 300 subjects.

**Tests/Measures:**

Following tests were used for data collection.

1. Zuckerman-Kuhlman Personality Questionnaire (ZKPQ-O).
4. 16 Personality Factor Questionnaire-Fifth Edition.
5. Eysenck Personality Questionnaire-Revised (EPQ-R).
6. NEO-Five Factor Inventory (NEO-FFI).

Obtained data were analysed with various statistical techniques:

1. Descriptive Statistics.
2. t-ratios.
3. Alpha coefficients and test-retest coefficients.
4. Pearson’s correlations.
5. Principal Component Factor Analysis.
6. Coefficients of Congruence.

**Main Findings:**

Main findings of the study (section wise) are as under:

**SECTION-I**

1. Inter-items correlations among 17 items of Activity Scale of ZKPQ-Original are in general positive ranging from -.009 to .728. 134 of 136 correlations are significant, of which 132 are significant beyond .01 probability and 2 are above .05 probability level. Item No 33 (General Activity) could not mark significant relationship with items No 64 (Work Effort) and 83 (General Activity). Similarly, intercorrelations among 17 items of Activity Scale of ZKPQ-Hindi Version are in general positive ranging from .013 to .734, with 134 of 136 being
significantly positive beyond .01 probability level. Here also Item No 33 could not mark significantly relationship with Item No 64 (Work Effort) and 83 (General Activity). Likewise, intercorrelations among 17 items of Activity Scale of *ZKPQ-Retranslated Version* are in general positive with 132 of 136 correlations being significant (p<.01). Here, Item No 33 could not mark significantly positive association with items Nos 18, 28, 64, and 83. Overall, Item No 33 emerged as problematic in data from Indian subjects with all the three versions of ZKPQ.

2. Intercorrelations among 19 items of Neuroticism-Anxiety Scale of *ZKPQ-Original* are ranging between .293 and .684 with the mean coefficient of .444. All the 171 correlations are significantly positive (p<.01). Similarly, all the 171 correlations among 19 items of Neuroticism-Anxiety Scale of *ZKPQ-Hindi Version* are significantly positive (p<.01) ranging between .269 and .657 with the mean coefficient of .433. Likewise, all the 171 correlations among 17 *retranslated* items of Neuroticism-Anxiety Scale of ZKPQ are significantly positive (p<.01) ranging between .257 and .653 with the mean coefficient of .436. The present finding depicts the internal consistency among the items as well as reliability and construct validity of Neuroticism-Anxiety scale.

3. Intercorrelations among 19 items of Impulsive-Sensation Seeking Scale of *ZKPQ-Original* are in general positive ranging from .062 to .716 with the mean coefficient of .375. 170 of 171 correlations are significant above .01 probability level. Item No 1 (Impulsivity) has not marked significant association with Item No 65 (Sensation Seeking). Similarly, intercorrelations among 19 *Hindi translated* items of Impulsive-Sensation Seeking Scale of ZKPQ are in general positive and significant above .01 probability level, ranging between .056 and .678 with the mean coefficient of .365. Here also item No 1 (Impulsivity) has not marked significant association with item No 65 (Sensation Seeking). Likewise, intercorrelations among 19 *retranslated* items of Impulsive-Sensation Seeking Scale are in general positive ranging between .151 and .711 with the mean coefficient of .363. Here also all the 171 correlations are significant. Overall, correlations among targeted items of Impulsive-Sensation Seeking Scale in all the three versions depict internal consistency reliability of items as well as construct validity of scale.
4. Intercorrelations among 17 *Original* items of Sociability Scale are in general positive ranging from .138 to .719 with mean coefficient of .407. All the 136 correlations are significant above .01 probability level. Similarly, all the 136 correlations among 17 *Hindi translated* items of this scale are significantly positive beyond .01 probability level ranging between .152 and .708 with the mean coefficient of .398. Likewise, all the 136 correlations among 17 *retranslated* items of Sociability Scale are significantly positive above .01 probability level ranging from .113 to .695 with the mean coefficient of .396. Overall, this finding depicts the internal consistency reliability of items as well as of scale and its construct validity.

5. Intercorrelations among 17 items of Aggression-Hostility Scale of *ZKPQ-Original* are in general positive ranging from .120 to .630 with the mean coefficient of .385; and all the 136 correlations are significant above .01 probability level. Similarly, all the 136 correlations among 17 *Hindi translated* items of this scale are significantly positive (p<.01) ranging between .147 and .619 with the mean coefficient of .380. Likewise, all the 136 correlations among 17 *retranslated* items of this scale are significantly positive (p<.01) ranging from .137 to .614 with the mean coefficient of .375. This finding depicts the reliability of items as well as of scale and its construct validity.

6. Intercorrelations among 89 content items of five scales of *ZKPQ-Original* were factor analysed by Principal Component Method of Factor Analysis. Five factor solution was done. Unrotated factors were varimaxely rotated which have accounted for 48.17% of total variance with eigenvalues ranging from 29.378 to 2.565; and with communalities ranging from .249 to .712.

   a. **Factor-I (Activity)** has been defined by 14 of 17 items designated for Activity scale with loadings ranging from .311 to .707. Three items could not mark significant loadings, of which two have substantial positive loadings. Only one item i.e. item No 33 could not mark substantial loading. It has accounted for 33.01% of total variance. Five items of Impulsive-Sensation Seeking; 7 items of Neuroticism-Anxiety; 7 items of Aggression-Hostility; and 8 items of Sociability have also marked significant loadings.
on this factor depicting the possibility of existence of some higher order factors from alternative five factors of AFFM. Obtained structure replicates one of five factors of AFFM in data from Indian subjects. It supports Hypothesis No 1 positing that alternative five factors of AFFM are expected to be verified as such in data from Indian subjects.

b. **Factor-II (Neuroticism-Anxiety)** has loaded positively on the targeted 19 items of Neuroticism-Anxiety scale of ZKPQ-Original with the loadings ranging from .343 to .706 accounting for 5.17% of total variance. Two items of Aggression-Hostility scale; and two items of Impulsive-Sensation Seeking scale have also loaded positively; whereas two items of Sociability and two of Activity have loaded negatively on this factor. Obtained structure depicts positive association of Neuroticism-Anxiety with Impulsive-Sensation Seeking, and Aggression-Hostility; and negative with Sociability and Activity. Obtained structure replicates one of five factors of AFFM in data from Indian subjects. It also depicts the possibility of higher order factors from alternative five factors of AFFM. It supports Hypothesis No 1 positing that alternative five factors are expected to be verified as such in data from Indian subjects.

c. **Factor-III (Impulsive-Sensation Seeking)** has loaded positively on all the designated 19 items of Impulsive-Sensation Seeking scale of ZKPQ-Original with loadings ranging from .302 to .623 accounting for 3.98% of total variance. Besides, two items of Neuroticism-Anxiety, three of Aggression-Hostility have borne out positive loadings; and two items of Activity and Sociability scale each have marked significant negative loadings on this factor depicting some positive association of Impulsive-Sensation Seeking with Neuroticism-Anxiety and Aggression-Hostility; and negative with Activity and Sociability scales. Obtained structure replicates one of five factors of AFFM in data from Indian subjects and depicts the possibility of some higher order factors from AFFM. It supports Hypothesis No 1.

d. **Factor-IV (Sociability)** loads positively on 14 of 17 items of Sociability scale with loadings ranging from .332 to .717. Three items could not
achieve significance level of loadings but their loadings magnitude is substantial and positive. In addition, six items of Activity have borne out significant positive loadings, one of Neuroticism-Anxiety, one of Aggression-Hostility have marked negative loadings on this factor depicting positive association of Sociability with Activity; and negative with Neuroticism-Anxiety and Aggression-Hostility factors. Obtained structure almost replicates one of the five factors of AFFM in data from Indian subjects and also possibility of existence of some higher order factors of personality from AFFM. It supports Hypothesis No 1.

e. **Factor-V (Aggression-Hostility)** has loaded positively on all the 17 designated items of Aggression-Hostility scale of ZKPQ-O with the loadings ranging from .342 to .658 accounting for 2.88% of total variance. In addition, three items of Neuroticism-Anxiety, and three of Impulsive-Sensation Seeking scale have marked significant positive association, whereas two items of Activity scale have marked negative association with this factor depicting some positive association of Aggression-Hostility factor with Neuroticism-Anxiety and Impulsive-Sensation Seeking; and negative with Activity factor. Obtained structure fully replicates one of five factors of AFFM among Indian subjects, and depicts the possibility of some higher order factors from AFFM. It supports Hypothesis No 1.

7. Intercorrelations among 89 content items of five scales of *ZKPQ-Hindi Version* were factor analysed with Principal Component Method of Factor Analysis. Five factor solution was done. Unrotated factors were varimaxely rotated which have accounted for 47.31% of total variance with eigenvalues ranging from 28.99 to 2.53; and $h^2$ ranging between .217 and .682. Description of five factors is as under:

a. **Factor-I (Activity)** has loaded on 14 of 17 designated items of Activity scale of ZKPQ-Hindi Version with loadings ranging from .300 to .710. Three items could not borne out significant loadings but direction of their loadings is positive. Additionally, nine items of Sociability have marked significant positive association; whereas six items of Impulsive-Sensation
Seeking, six items of Neuroticism-Anxiety have marked significant negative with Impulsive-Sensation Seeking and Neuroticism-Anxiety factors. Obtained structure depicts the replication of one of five factors of AFFM accounting for 32.58% of variance, and possibility of some higher-order factors from five factors of AFFM. It supports Hypothesis No 1.

b. **Factor-II (Neuroticism-Anxiety)** has been defined by all the 19 designated items for Neuroticism-Anxiety scale of *ZKPQ-Hindi Version* with positive loadings ranging from .290 to .637 replicating one of the five factors of AFFM and accounting for 5.02% of total variance. Besides, one item of Aggression-Hostility has marked significant positive loading whereas six items of Activity, and one of Sociability scale have marked significant negative loadings on this factor depicting some positive association of Neuroticism-Anxiety with Aggression-Hostility; and negative with Activity and Sociability. Obtained structure posits the possibility of existence of some higher-order factors from five factors of AFFM. It supports Hypothesis No 1.

c. **Factor-III (Sociability)** has loaded positively on 14 of 17 designated items of Sociability scale of *ZKPQ-Hindi Version* with loadings ranging from .304 to .701. Loadings of three items which could not achieve significance level are also positive. It replicates one of the five factors of AFFM accounting for 3.82% of total variance. In addition, six items of Activity scale have marked positive association whereas one of Impulsive-Sensation Seeking and one of Neuroticism-Anxiety have marked significant negative association with this factor depicting the possibility of existence of some higher order factors from five factors of AFFM. It supports Hypothesis No 1.

d. **Factor-IV (Impulsive-Sensation Seeking)** has mainly loaded positively on 18 of 19 designated items of Impulsive-Sensation Seeking scale of *ZKPQ-Hindi Version* with loadings ranging from .345 to .614. Item No 1 of Impulsive-Sensation Seeking scale could not achieve the significance level of loading but the loading is positive substantial (.255). This finding
replicates one of the five factors of AFFM in data from Indian subjects accounting for 3.03% of total variance. Besides, three items of Aggression-Hostility scale, four of Neuroticism-Anxiety scale have marked significant positive association whereas three items of Activity scale, and three of Sociability scale have marked significant negative association with this factor depicting some positive association of Impulsive-Sensation Seeking with Aggression-Hostility, Neuroticism-Anxiety; and negative with Activity and Sociability depicting the possibility of existence of some higher-order factors from five factors of AFFM. It supports Hypothesis No 1.

e. **Factor-V (Aggression-Hostility)** has loaded positively on all the 17 designated items of Aggression-Hostility scale of *ZKPQ-Hindi Version* with loadings ranging from .311 to .637 replicating one of the five factors of AFFM on Indian subjects accounting for 2.85% of total variance. In addition, three items of Neuroticism-Anxiety scale and four of Impulsive-Sensation Seeking scale have also marked significant positive loadings on this factor depicting some positive association among Aggression-Hostility, Neuroticism-Anxiety, and Impulsive-Sensation Seeking factors of AFFM; and possibility of existence of some higher order factors from five factors of AFFM. It supports Hypothesis No 1.

8. Intercorrelations 89 content items of five scales of *ZKPQ-Retranslated Version* were subjected to Principal Component Analysis for five factor solution. Extracted factors (unrotated) were varimaxely rotated which have accounted for 47.29% of total variance with eigenvalues ranging from 28.809 to 2.615 and with communalities ranging between .212 and .683. Obtained factors are as under:

a. **Factor-I (Activity)** has mainly loaded positively on 14 of 17 designated items of Activity scale of *ZKPQ-RT Version* with loadings ranging from .304 to .696. Three items of Activity scale which could not loaded significantly are 33, 54, and 99, of which two (54 and 99) have marked substantial positive loadings but item No 33 has marked almost zero
loading on this factor. In addition, 9 items of Sociability scale have marked significant positive loadings whereas five items of Impulsive-Sensation Seeking, six of Neuroticism-Anxiety and six of Aggression-Hostility have yielded significant negative loadings on this factor positing positive association of Activity with Sociability, and negative with Impulsive-Sensation Seeking, Neuroticism-Anxiety and Aggression-Hostility factors; and possibility of existence of some higher-order factors from five factors of AFFM. Obtained structure has accounted for 32.31% of total variance, and replicated one of five factors of AFFM in data from Indian subjects. It supports Hypothesis No 1.

b. **Factor –II (Neuroticism-Anxiety)** has loaded positively on all the designated 19 items of Neuroticism-Anxiety scale of *ZKPQ-RT Version* with loadings ranging from .291 to .717 replicating one of the five factors of personality of AFFM accounting for 5.01% of total variance. In addition, one item of Impulsive-Sensation Seeking, and two of Aggression-Hostility scale have marked significant positive loadings, whereas two items of Activity and four of Sociability have marked significant negative loadings on this factor depicting some positive association of Neuroticism-Anxiety with Impulsive-Sensation Seeking, Aggression-Hostility; and negative association with Activity and Sociability factors of AFFM depicting the possibility of existence of some higher order factors from five factors of AFFM. It supports Hypothesis No 1.

c. **Factor-III (Impulsive-Sensation Seeking)** has yielded significant positive loadings on all the 19 designated items of Impulsive-Sensation Seeking scale of *ZKPQ-RT Version* with loadings ranging from .376 to .641 replicating one of five factors of AFFM and accounting for 3.85% of total variance. In addition, two items of Neuroticism-Anxiety and three of Aggression-Hostility scales have marked significant positive loadings, whereas three items of Activity and two of Sociability scale have marked significant loadings on this factor depicting some positive association of Impulsive-Sensation Seeking factor with Neuroticism-Anxiety and
Aggression-Hostility; and negative with Activity and Sociability factors suggesting the possibility of existence of some higher order factors from five factors of AFFM. It supports Hypothesis No 1.

d. **Factor-IV (Sociability)** has borne out significant positive loadings on 15 of 17 designated items of Sociability scale of *ZKPQ-RT Version* ranging from .291 to .721. Two items which could not mark significant association are also having substantial positive loadings. In addition, five items of Activity scale have marked significant positive association whereas one item of Neuroticism-Anxiety and one of Aggression-Hostility have marked significant negative associations with this factor. Obtained structure has replicated one of the five factors of AFFM in data from Indian subjects accounting for 3.11% of total variance; and depicts possibility of existence of some higher-order factors from five factors of AFFM. It supports Hypothesis No 1.

e. **Factor-V (Aggression-Hostility)** has borne out significant positive loadings ranging from .300 to .655 on this factor replicating one of five factors of AFFM in data from Indian subjects which have accounted for 2.93% of total variance. Three items of Neuroticism-Anxiety and four of Impulsive-Sensation Seeking scale have marked significant positive association, whereas two items of Activity scale have marked negative association with this factor depicting some positive association of Aggression-Hostility factor with Neuroticism-Anxiety and Impulsive-Sensation Seeking; and negative with Activity factors of AFFM. Obtained structure depicts the possibility of existence of some higher-order factors from five factors of AFFM. It supports Hypothesis No 1.

9. Tucker’s Coefficients of Congruence were obtained to ascertain the degree of similarity among the factors obtained from three versions of *ZKPQ* in data from Indian subjects. In *ZKPQ-O v/s ZKPQ-H*, coefficients of congruence were found to be .99, .99, .97, .99 and .98 respectively for five factors i.e. Activity, Neuroticism-Anxiety, Impulsive-Sensation Seeking, Sociability and Aggression-Hostility. In case of *ZKPQ-O v/s ZKPQ-RT* obtained coefficients are .98, .99,
.97, .98, and .98 for respective five factors of Activity, Neuroticism-Anxiety, Impulsive-Sensation Seeking, Sociability, and Aggression-Hostility. In case of ZKPQ-H v/s ZKPQ-RT obtained coefficients are .97, .99, .98, .97, and .98 for five factors i.e. Activity, Neuroticism-Anxiety, Impulsive-Sensation Seeking, Sociability and Aggression-Hostility. Obtained coefficients are above threshold (<.90). Present finding depicts successful adaptation/translation of ZKPQ in Hindi and verification of five factors of AFFM among Indian subjects.

10. Reliability estimates were obtained by applying two methods-----Internal consistency and test-retest.

11. Alpha coefficients for five factors were found ranging from .90 to .93 in Original Version of ZKPQ with the mean coefficient of .91; from .88 to .93 with the mean of .90 in Hindi Version; and ranging from .83 to .91 with the mean of .87 in re-translated Version. Alpha coefficients for Activity scale in three versions are .90, .89, and .86; for Neuroticism-Anxiety are .93, .93, and .91; for Impulsive-Sensation Seeking are .91, .91, and .87; for Sociability are .91, .90, and .91; and for Aggression-Hostility are .91, .88, and .83 depicting the stability and reliability of five scales of three versions of ZKPQ.

12. Test-retest reliability coefficients for all three versions of ZKPQ (N=110, one weak interval) were obtained. Test-retest reliability coefficients for all five scales in ZKPQ-O ranged between .70 and .84; from .65 to .91 in Hindi Version; and from .68 to .83 in Re-translated Version. Respective mean coefficients in three versions are .76, .79, and .78. Test-retest reliability coefficients for five factors in ZKPQ-O are .75 (Activity), .79 (Neuroticism-Anxiety), .73 (Impulsive-Sensation-Seeking), .70 (Sociability), and .84 (Aggression-Hostility). In Hindi Version these are .76 (Activity), .91 (Neuroticism-Anxiety), .76 (Impulsive-Sensation-Seeking), .85 (Sociability), and .83 (Aggression-Hostility). In Retranslated Version these are .77 (Activity), .83 (Neuroticism-Anxiety), .81 (Impulsive-Sensation-Seeking), .68 (Sociability), and .81 (Aggression-Hostility).

13. Intercorrelations among five scale scores of ZKPQ-O are in general low ranging from -.369 to .450. Nine of ten correlations are significant at or above .05
probability level, of which five are positive and four are negative. Obtained pattern of correlations suggests the possibility of existence of some higher order factors of personality from original five factors of ZKPQ.

14. 5X5 intercorrelations matrix was subjected to Principal Component Analysis. Two factors were extracted using Kaiser’s (1960) criterion of Eigenvalues greater than 1.00. Unrotated factors were varimaxely rotated which have accounted for 66.613% of total variance. These have been named as Extroversion-Sociability (Factor-I) and Neuroticism-Anxiety (Factor-II); and are similar to two super factors as reported by Zuckerman (1993). Eigenvalues for two factors are 2.290 and 1.04 respectively, and the communalities ($h^2$) are ranging from .551 to .806. This finding supports Hypothesis No 2 that two super factors are expected to be verified in data from Indian subjects.

a. **Factor-I (Extroversion-Sociability)** loads positively on scales of Sociability and Activity; negatively on Aggression-Hostility and Neuroticism-Anxiety. Obtained structure almost replicates one of super factors of personality i.e. Extroversion-Sociability (E-Sy) from five factors of AFFM as reported by Zuckerman (1993). It has accounted for 45.79% of total variance.

b. **Factor-II (Neuroticism-Emotionality)** positively loads on scales of Impulsive-Sensation Seeking, Neuroticism-Anxiety and Aggression-Hostility with respective loadings of .893, .704, and .525. Obtained structure almost resembles with one of the super factors of personality (Neuroticism-Emotionality) from five factors of AFFM as reported by Zuckerman (1993).

15. Intercorrelations among five scale scores of ZKPQ-H are in general low ranging between -.274 and .409. Eight of 10 correlations are significant (p<.05), of which five are positive and three are negative. These significant correlations may be because of possibility of some higher order factors in five factors of AFFM.

16. Intercorrelations among five scale scores of ZKPQ-H were subjected to Principal Component Analysis. Two factors were extracted in terms of Kaiser’s
(1960) criterion of Eigenvalues greater than 1.00. Unrotated factors were varimaxely rotated, of which eigenvalues are 1.990 and 1.148 respectively; and have accounted for 62.758% of total variance. These are Neuroticism-Emotionality (Factor-I) and Extroversion-Sociability (Factor-II) similar to two super factors as reported by Zuckerman (1993). Communalities ($h^2$) are ranging from .130 to .733. It supports Hypothesis No 2.

a. **Factor-I (Neuroticism-Emotionality)** positively loads on scales of Impulsive-Sensation Seeking, Neuroticism-Anxiety, and Aggression-Hostility with respective loadings of .823, .717, and .630 accounting for 39.792% of total variance. Obtained structure almost replicates one of super factors of personality from five factors of AFFM (N-Emotionality) in data from Indian subjects (Zuckerman, 1993).

b. **Factor-II (Extraversion-Sociability)** has borne out significant positive loadings on scales of Sociability (.802) and Activity (.754); and negative on Aggression-Hostility (-.401) and Neuroticism-Anxiety (-.320) accounting for 22.966% of total variance. Obtained structure replicates one of super factors of personality from five factors of AFFM (E-Sy) in data from Indian subjects with ZKPQ-Hindi Version (Zuckerman, 1993).

17. Intecorrelations among five scale scores of ZKPQ-RT Version are in general low ranging from -.336 to .435. Nine of 10 correlations are significant (p<.05) of which five are negative and four are positive. These significant correlations may be because of some personality factors at higher order level.

18. Intercorrelations among five scale scores of ZKPQ-RT were processed for Principal Component Analysis. With Eigenvalues greater than 1.00, two factors were extracted which were subsequently varimaxely rotated and have accounted for 62.437% of total variance. These are Extroversion-Sociability (Factor-I) and Neuroticism-Emotionality (Factor-II) similar to two super factors reported by Zuckerman (1993). Eigenvalues for the two factors are 2.027 and 1.095 respectively, and communalities are ranging from .457 to .796. It supports Hypothesis No 2.

a. **Factor-I (Extraversion-Sociability)** has borne out significant positive loadings on scales of Sociability (.824) and Activity (.663); and negative on
Neuroticism-Anxiety (-.582) and Aggression-Hostility (-.498) accounting for 40.531% of total variance. Obtained structure almost replicates one of super factors of personality from five factors of AFFM in data from Indian subjects (Zuckerman, 1993).

b. **Factor-II (Neuroticism-Emotionality)** positively loads on scales of Impulsive-Sensation Seeking (.882), Aggression-Hostility (.554), and Neuroticism-Anxiety (.535) accounting for 21.906% of total variance. Obtained structure almost replicates one of super factors of personality (N-Emotionality) from five factors of AFFM (Zuckerman, 1993) in data from Indian subjects with ZKPQ-RT.

**SECTION-II**

19. Present study examined the convergence/compatibility of AFFM with Cattellian, Eysenckian, and Five Factor models of personality. Main findings are as under:

20. Correlations between eight facets scores of five factors of ZKPQ-Hindi Version and 16 scores of primary factors of 16 PF are ranging between -.60 to .60. Eighty four of 128 correlations are significant (p<.05), of which 39 are positive and 45 are negative. Obtained pattern of correlations depicts that two types of measures have shared substantial amount of variance between them and overlap between some primary factors of 16 PF and some facets of ZKPQ. It supports Hypothesis No 3 positing that Cattellian and Alternative Five Factor models are expected to have some overlap with each other.

21. 24X24 intercorrelations matrix was subjected to Principal Component Analysis. With eigenvalues greater than 1.00, eight factors were extracted. Extracted factors (unrotated) were varimaxely rotated which have accounted for 65.171% of total variance with eigenvalues ranging between 1.027 and 5.556. Communalities are ranging from .422 to .776.

a. **Factor-I (Anxiety)** has positively loaded on factors O, L, M, N and Q; and negatively on factors C and H of 16 PF which are considered markers of Anxiety v/s Unperturbed Anxiety, a second order factor of personality in Cattellian system, so it replicates in data from Indian subjects accounting for 23.15% of total variance. Neuroticism-Anxiety, a factor of AFFM has also marked significant positive loading on this factor depicting overlap between
Cattellian Anxiety v/s Unperturbed Anxiety, a second order factor, and AFFM’s Neuroticism-Anxiety factor.

b. **Factor-II (Extraversion)** has borne out significant positive loadings on factors F, H and A; and negative on Q$_2$ and M of 16 PF which are defining variables of one of second order factors of personality in Cattell’s theory i.e. Extroversion v/s Introversion (Cattell and Mead, 1998). Two facets of Sociability factor of AFFM (Isolation Intolerance and Parties and Friends) have also marked significant positive loadings on this factor depicting verification/replication of Sociability factor of AFFM in data from Indian subjects. Obtained structure depicts the convergence between Cattell’s Extroversion v/s Introversion, a second-order factor and Zuckerman’s Sociability factor. This factor has accounted for 9.186% of total variance.

c. **Factor-III (Self-Control)** has been mainly defined by factors Q$_3$, G, and M of 16 PF with respective loadings of .746, .699 and .327 which partially replicates one of the second-order factor of personality in Cattellian system i.e. Self-Control v/s Unrestrained (Cattell & Mead, 1998). Two facets of Impulsive-Sensation Seeking (Impulsivity and Sensation Seeking) and Neuroticism-Anxiety of ZKPQ have marked this factor with negative loadings which partially replicates one of the super factors from five factors of AFFM i.e. Neuroticism-Emotionality (Zuckerman, 1993). Obtained structure depicts some convergence between one of the second-order factors of Cattell’s model (Self-Control v/s Unrestrained) and one of super factors of Zuckerman’s AFFM (Neuroticism-Emotionality). It has accounted for 7.088% of total variance.

d. **Factor-IV (Activity)** has highly loaded on two facets of Activity Scale of ZKPQ-H i.e. Work Effort (.749) and General Activity (.534). Sensation Seeking, a facet of Impulsive-Sensation Seeking factor; and Parties and Friends, a facet of Sociability factor have also marked significant positive loadings depicting some positive association of Activity factor with Impulsive-Sensation Seeking and Sociability. Factors N, Q$_4$ and H of 16 PF have also marked significant loadings of -.428, -.372, and .328 respectively. It has accounted for 6.335% of total variance. Obtained pattern depicts overlap between some variables of AFFM and some of Cattell’s model.
which can’t be explained neither in terms of primary factors nor in terms of higher order factors.

e. **Factor-V (Independence)** positively loads on four factors of 16 PF viz. $Q_1$, $E$, $A$, and $H$ with respective loadings of $0.670$, $0.637$, $0.556$, and $0.467$. Obtained structure almost replicates one of the second-order factors i.e. Independence v/s Accommodating of Cattellian model of personality (Cattell & Mead, 1998) in data from Indian subjects. None of the factors of AFFM has shared its variance with the markers of this factor. It has accounted for $5.88\%$ of total variance.

f. **Factor-VI (Neuroticism-Emotionality)** positively loads on Aggression-Hostility and Neuroticism-Anxiety of ZKPQ with respective loadings of $0.850$ and $0.335$. Two factors of 16 PF i.e. $Q_4$ and $E$ have also marked significant positive loadings of $0.493$ and $0.366$ on this factor. Obtained structure partially replicates one of the super factors of AFFM (Zuckerman, 1993) having some overlap with factor $Q_4$ and $E$ of 16 PF. It has accounted for $4.666\%$ of total variance.

g. **Factor-VII (Unnamed)** loads positively on factor I of 16 PF and Isolation Intolerance, a facet of Sociability factor of ZKPQ; and negatively on factor $N$ of 16 PF. It depicts the positive relationship of factor I (Sensitivity) of 16 PF with Isolation Intolerance, a facet of Sociability of ZKPQ; and negative with factor $N$ (Privateness). It has accounted for $4.558\%$ of total variance.

h. **Factor-VIII (Concrete Thinking)** negatively loads on factors $B$ and $Q_1$ of 16 PF, and positively on General Activity, a facet of Activity factor of ZKPQ and factor $L$ of 16 PF. Here General Activity, a facet of AFFM has some positive relationship with factor $L$; and negative with factors $B$ and $Q_1$ of 16 PF. It has accounted for $4.28\%$ of total variance.

22. Overall, the above structural solution supports Hypothesis No 3 positing that Cattellian Model and Alternative Five Factor Model have some structural overlap with each other.

23. For examination of convergence between Zuckerman’s Alternative Five Factor Model and Eysenckian Model, correlations between score of five scales of ZKPQ-H and three dimensions of EPQ-R were obtained. Correlations between
five scales of ZKPQ and three of EPQ-R are in general low ranging from -.24 to .71. Thirteen of 15 correlations are significant (p<.05). Obtained correlations depict substantial amount of variance sharing between two types of measures.

24. 8X8 intercorrelation matrix was subjected to Principal Component Analysis. Two factors were extracted using Kaiser’s (1960) criterion of Eigenvalues greater than 1.00. Extracted factors (unrotated) were varimaxly rotated which have accounted for 53.704% of total variance having eigenvalues of 2.760 and 1.537 respectively; and communalities being ranging from .186 to .753.

a. **Factor-I (N-Emotionality)** has mainly loaded positively on Neuroticism-Anxiety, Impulsive-Sensation Seeking, and Aggression-Hostility of ZKPQ-H; and Neuroticism and Psychoticism of EPQ-R. It replicates one of super factors of personality in five factors of AFFM (Zuckerman, 1993) in data from Indian subjects. It also posits that Zuckerman’s N-Emotionality, a super factor of AFFM is having positive association with Neuroticism and Psychoticism of Eysenckian model.

b. **Factor-II (Extroversion-Sociability)** has borne out high positive loading on Extraversion of EPQ-R (.835) followed by Sociability (.769), Activity (.574) and Impulsive-Sensation Seeking (.388) of ZKPQ. It replicates one of the super factors (E-Sy) of AFFM (Zuckerman, 1993) in the data from Indian subjects. The present finding implies that Eysenckian Extraversion v/s Introversion dimension is inclusive of Sociability, Activity, and Impulsive-Sensation Seeking factors of AFFM.

25. This finding supports Hypothesis No 4 positing that Eysenckian three dimensions are inclusive of AFFM’s five factors.

26. For the examination of convergence between AFFM and FFM, intercorrelations between/among 10 variables were obtained, then subsequently factor analysed with Principal Component Analysis. Intercorrelations between five factors of AFFM and five of FFM are ranging from -.42 to .68. Twenty two of 25 correlations are significant (p<.05), of which 10 are positive and 12 are negative. Obtained correlations depict that two types of measures have shared substantial amount of variance between them.

27. Correlations between five scales of ZKPQ and five of Neo-FFI were subjected
to Principal Component Analysis. Three factors were extracted in terms of Kaiser’s (1960) criterion of eigenvalues greater than 1.00. Extracted factors (unrotated) were varimaxely rotated, and their eigenvalues are ranging from 1.101 to 3.515. Communalities are ranging between .451 and .732. Obtained factors have been identified as beta factor (Factor-I), alpha factor (Factor-II), and Positive Valence (Factor-III). All the three factors have accounted for 57.798% of total variance.

a. **Factor-I (beta factor)** has mainly loaded positively on three scales of ZKPQ namely, Neuroticism-Anxiety, Impulsive-Sensation Seeking and Aggression-Hostility with respective loadings of .760, .721, and .603; and three factors of Neo-FFI i.e. Neuroticism (.727), Agreeableness (-.365) and Conscientiousness (-.310). Obtained structure has replicated one of super factors of personality (beta factor) from Neo-FFI (Digman, 1997; McCrae & Costa, 1992). Factorial combination of three scales of ZKPQ-H namely Neuroticism-Anxiety, Impulsive-Sensation Seeking and Aggression-Hostility has replicated one of super factors (N-Emotionality) from ZKPQ (Zuckerman, 1993). It implies that beta factor of FFM and N-Emotionality of ZKPQ are compatible to each other.

b. **Factor-II (alpha factor)** has loaded positively on Sociability (.701), Activity (.632) and Impulsive-Sensation Seeking (.425) of ZKPQ-H, and Extroversion (.641) and Conscientiousness (.345) of Neo-FFI; and negatively on Neuroticism (-.445) of Neo-FFI. Obtained structure replicates alpha factor, a super factors from Neo-FFI (Digman, 1997), and E-Sociability a broad factor from ZKPQ (Zuckerman, 1998). It implies that alpha factor of FFM and E-Sociability of AFFM are compatible to each other.

c. **Factor-III (Positive Valence)** mainly loads positively on Openness, Agreeableness, Conscientiousness, and Extroversion scales of NEO-FFI depicting positive association among them. None of the scales of ZKPQ has marked significant association with the markers of this factor.

28. This finding supports Hypothesis No 5 positing that FFM and AFFM are expected to have some overlap with each other.
SECTION-III

29. Cross cultural equivalence is an important criterion of validity for personality models like AFFM. Over the past decades, a number of studies have been conducted translating/adapting ZKPQ across various languages and cultures such as Chinese, Catalan, German, Japanese, Spanish, French etc. In present study, ZKPQ has been translated in Hindi, and findings are as under:

30. Alpha coefficients for five scales of \textit{ZKPQ-Hindi Version} are ranging from .88 to .93 higher than traditionally accepted level of .70. Alpha coefficients for respective scales are .93 for Neuroticism-Anxiety, .91 for Impulsive-Sensation Seeking, .89 for Activity, .88 for Aggression-Hostility, and .90 for Sociability.

31. Test-retest reliability coefficients for five scales of \textit{ZKPQ-Hindi Version} are ranging from .70 to .91 above the accepted level of .70. Respective coefficients for five scales are .91 for Neuroticism-Anxiety, .76 for Impulsive-Sensation Seeking, .76 for Activity, .70 for Aggression-Hostility, and .85 for Sociability.

32. Coefficients of congruence were also obtained to examine the similarity among factors from three versions of \textit{ZKPQ-Original, Hindi, and Re-translated Version}. Coefficients of congruence for Neuroticism-Anxiety factor \textit{ZKPQ-O v/s ZKPQ-H} is .99; .99 in \textit{ZKPQ-O v/s ZKPQ-RT}; and .99 in \textit{ZKPQ-H v/s ZKPQ-RT}. For Impulsive-Sensation Seeking coefficients of congruence are .97, .97, and .98 respectively in \textit{ZKPQ-O v/s ZKPQ-H; ZKPQ-O v/s ZKPQ-RT, and ZKPQ-H v/s ZKPQ-RT}. For Activity coefficients of congruence are .99 (\textit{ZKPQ-O v/s ZKPQ-H}), .98 (\textit{ZKPQ-O v/s ZKPQ-RT}) and .97 (\textit{ZKPQ-H v/s ZKPQ-RT}). For Aggression-Hostility coefficients of congruence are .98 (\textit{ZKPQ-O v/s ZKPQ-H}), .98 (\textit{ZKPQ-O v/s ZKPQ-RT}) and .98 (\textit{ZKPQ-H v/s ZKPQ-RT}). Coefficients of congruence for Sociability factor are .99 (\textit{ZKPQ-O v/s ZKPQ-H}), .98 (\textit{ZKPQ-O v/s ZKPQ-RT}) and .97 (\textit{ZKPQ-H v/s ZKPQ-RT}). All the obtained coefficients of congruence are ranging between .97 and .99 above the traditionally accepted level of .85.

33. Findings of this study in this regard are comparable to those of earlier cross-cultural studies (China, German, Japanese, Catalan, etc.) Hence, the present finding also depicts the successful translation/adaptation of ZKPQ in Hindi for Indian context.
34. It supports Hypothesis No 6 that findings of present study are expected to be comparable to those of other cultural settings.

SECTION-IV

24. Gender differences in five factors of AFFM were investigated using the Hindi version of ZKPQ in the present study. In case of Hindi version of ZKPQ, females have been found scoring high on Neuroticism-Anxiety, Impulsive-Sensation Seeking, and Aggression-Hostility; and low on Sociability and Activity. Findings depict the females to be high on Neuroticism-Anxiety across the cultures. Findings of this study in this regard are partially confirmatory to earlier findings, may be because of cultural differences. It provides partial support to Hypothesis No 7 regarding gender differences in five factors of AFFM.

Overview of Findings:

1. All the five factors of AFFM have been verified/replicated in Hindi language context.
2. ZKPQ has been successfully adapted/translated in Hindi except items No 1 (Impulsivity) and 33 (General Activity).
3. Reliabilities (alpha coefficients and test-retest) of five scales of three versions are above the traditionally accepted level of .70.
4. Congruence Coefficients are ranging between .97 and .99 above the threshold of .85 depicting the similarity among three structures of three versions of ZKPQ.
5. Five factors of AFFM have been found hierarchically organized in two super factors (N-Emotionality) and (E-Sociability) similar to suggested by Zuckerman (1993).
6. As expected some convergence of AFFM has been found with Cattellian, Eysenckian, and McCrae & Costa’s models of personality.
7. Cross-cultural replicability of five factors of AFFM has been ascertained.
8. Gender differences in five factors in the present study are partially confirming to the earlier findings have needs further verification.
9. Convergent, Discriminant, and Construct validities of ZKPQ are satisfactory.