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Big Five Personality Traits and Gender Differences

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ABSTRACT

The present study aimed to analyze the gender differences between Big Five personality dimensions (Openness, Conscientiousness, Agreeableness, Neuroticism and Extraversion). A total of 167 undergraduate students completed the NEO Five Factor Inventory (NEO-FFI). Male and female students were compared on all five personality traits. On an average males scored higher than female students on all traits except Neuroticism. Both male and female students don't differ significantly on Big Five personality traits except for Agreeableness. Males significantly scored higher on Agreeableness than females. This paper starts with literature review on Big Five Personality dimensions. This is followed by research methodology and findings. In the end discussion and conclusions based on results are presented.

Keywords:— Personality; Big Five Traits; Openness; Conscientiousness; Extraversion; Agreeableness; Neuroticism.

I. INTRODUCTION

In the late 1990s, a meta-analysis conducted by DeNeve and Cooper (1998) shows the existence of a large number of studies relating two dimensions of subjective well-being (Veenhoven, 1984): negative affect, positive affect and personality and the balance between them. With reference of the Big Five dimensions, researches have suggested that negative affect is predicted by Neuroticism. Extraversion and Agreeableness were identified as the most important dimensions for positive affect. The present study aims at analyzing the relationship between the Big Five personality dimensions (Openness, Conscientiousness, Agreeableness, Extraversion, and Neuroticism) and subjective well-being in Indian Context. This paper starts with literature review on Big Five Personality Dimensions and Well Being. This is followed by research methodology and findings. In the end discussion and conclusions based on results are presented.

II. LITERATURE REVIEW

Big Five Origins: One of the most influential scientists for constructing a personality taxonomy was Raymond B. Cattell(1943, 1945). Based on Cattell findings Big Five Factors were created (Digman & Takemoto-Chock, 1981; Norman, 1963, Fiske, 1949; Tupes & Christal, 1961). Each of the Big Five dimensions holds a set of traits that tend to occur together. The most commonly accepted set of these traits are those developed by Costa and McCrae (1985,1992). These "Big-Five" factors have traditionally been numbered and labeled as follows:

- (i) Openness,
- (ii) Conscientiousness
- (iii) Extraversion
- (iv) Agreeableness
- (v) Neuroticism.

The number of interests to which one is attracted to is openness, which signifies the depth to pursue those interests. A person with relatively more interests and relatively less depth within each interest is High openness, while, Low openness refers, to a person relatively more depth in each of the interests with relatively only few interests.

Conscientiousness indicates the number of goals on which one is focused. A person who focuses on fewer goals refers to high conscientiousness. He exhibits the self-discipline which is associated with related focus. The one who pursues a larger number of goals refers to low conscientiousness. He exhibits the distractibility and spontaneity associated with diffuse focus.

The number of relationships which one is comfortable with in his life describes extraversion. High extraversion is denoted

by a larger number of relationships where a person spends a larger proportion of his/her time in enjoying their relationships. Low extra version is characterized by a smaller number of relationships where a person spent their small proportions of timings which his/her relationships.

The number of sources from which one takes one's norms for right behavior describes agreeableness. High agreeableness means a person who defers to sources such as spouse, religious leader, friend, boss, or pop culture idol. Low agreeableness describes one who only follows one's inner voice. Another way of looking this is that a High agree ableness person will march to the drumbeat of many different drummers, a low agreeableness person march only to his own drumbeat.

Neuroticism refers to elicitation of negative emotions in a person. It depends on number and strength of stimuli. More resilient persons are bothered by fewer stimuli in their environment. In order to bother them the stimuli must be strong. More reactive persons are bothered by a variety of stimuli. In order to bother them the stimuli do not have to be as strong. As far as gender differences are concerned in big five traits, it has been found that women tend to be less risk taking and assertive than men. Also, women tend to be more anxious and tender-minded (Brody & Hall, 2000; Kring & Gordon, 1998; Byrnes, Miller, & Schafer, 1999; Lynn & Martin, 1997; Feingold, 1994; Maccoby & Jacklin, 1974). Women are thought to be more cautious and nurturing (Buss, 1997; Campbell, 2002; MacDonald, 1995). There are explanations for gender differences across cultures (Costa, Terracciano & McCrae, 2001).). But there is lot of variability in these differences across countries and cultures (Gangestad, Haselton, & Buss, 2006; Buss, 2001; Gangestad & Simpson, 2000; Crawford, 1998; Nesse & Williams, 1994).

Big Five Traits and Subjective Well Being

McCrae and Costa (1991) suggested that Conscientiousness and Agreeableness would increase the probability of having positive experiences in achievement and social situations, all this is directly related to subjective well-being. Also, it was argued by the authors that Extraversion influences positive affect while Neuroticism influences negative affect. This shows that the two basic dimensions of personality i.e. extraversion and neuroticism lead to positive and negative affect, respectively (Costa & McCrae, 1980; McCrae & Costa, 1991).

Objectives of the study

1. To Study the level of Big Five personality traits among graduate students.
2. To compare big five personality traits of graduate students on the basis of Gender

Hypotheses

- H₀₁: Male and Female university students don't differ significantly on Openness of big five personality traits.
- H₀₂: Male and Female university students don't differ significantly on Conscientiousness of big five personality traits.
- H₀₃: Male and Female university students don't differ significantly on Extraversion of big five personality traits.
- H₀₄: Male and Female university students don't differ significantly on Agreeableness of big five personality traits.
- H₀₅: Male and Female university students don't differ significantly on Neuroticism of big five personality traits.

III. RESEARCH METHODOLOGY

Sampling

A sample of 167 graduate students from a private Indian University is collected. Questionnaires were admitted to each department according to the total number of possible participants, and two weeks were given to respondents complete them. A proper follow-up was done until all the questionnaires were completed.

Table 1: Sample Distribution

Gender	N	Father Occupation	
		Business	Service
Male	115	62	53
Female	52	35	17

Measures

The NEO-FFI (Costa & McCrae, 1999)-English version was employed to assess the dimensions of BigFive personality. It is a 60-element version of the NEO PI-R (180-items), which gives a general and rapid measure of the Big Five personality factors: Neuroticism, Openness, Extraversion, Conscientiousness, and Agreeableness.

Results and Findings

Frequencies and percentages of all the dimensions of Big-5 Personality Dimensions (neuroticism, conscientiousness, extraversion, agreeableness and openness) among University students are shown in Table 2.

Table 2: Frequency of Traits

Trait	Frequency		
	Low	Medium	High
Openness	65	76	26
Conscientiousness	39	89	39
Extraversion	36	96	35
Agreeableness	45	97	25
Neuroticism	42	111	14

Mean and Standard Deviations of Male and Female is calculated in Table 3.

Table 3: Gender wise Mean and Standard Deviation

Traits	Group Statistics				
	Gender	N	Mean	SD	SE
Openness	Male	115	52.8	26.4	2.5
	Female	52	49.7	27.3	3.8
Conscientiousness	Male	115	60.5	25.6	2.4
	Female	52	58.8	22.4	3.1
Extraversion	Male	115	62.3	22.4	2.1
	Female	52	59.0	25.3	3.5
Agreeableness	Male	115	58.6	22.6	2.1
	Female	52	50.1	25.8	3.6
Neuroticism	Male	115	50.1	22.0	2.1
	Female	52	54.7	19.1	2.6

The mean of Openness, Conscientiousness, Extraversion and Agreeableness is found to be higher in males. As per the mean Neuroticism in found to be higher in Females. Previous researches on Neuroticism also state that males tend to show less Neuroticism than females. In a global study of 49 Nations men scored significantly less than women in Neuroticism (Schmitt, Allik, McCrae, Benet-Martinez, et al., 2007).

We Sought out to explore the significance level of difference in each of the five factors. We applied T-Test. We took Male and Females as two separate groups. The result of the test is displayed in Table No. 4

Table 4

T Test Results		
Traits (Male Vs Female)	t-Value	Significant
Openness	0.702 (167)	No
Conscientiousness	0.423 (167)	No
Extraversion	0.852 (167)	No
Agreeableness	2.142 (167)	Yes*
Neuroticism	-1.289 (167)	No

*=significant at 0.05 level

There was no significant difference between four personality traits between male and female students. Therefore, null hypothesis (H_{01} , H_{02} , H_{03} and H_{05}) has been accepted, which states that there is no significant difference between Openness, Conscientiousness, Extraversion and Neuroticism of Male and Female students. On the other hand, Agreeableness is found to be significantly different in Males and Females, $t(167) = 2.142$, $p < 0.05$. Therefore, null hypothesis (H_{04}) stands rejected. It means trait of agreeableness is found to be significantly higher in male students than female students.

IV. CONCLUSION AND DISCUSSION

The present study aimed at examining the personality traits of university students with reference to demographic variables like Gender. The main findings of this study are:

- Overall majority of the students were found to have medium level of Conscientiousness, Extraversion, Agreeableness and Neuroticism. All students were found to have Low to

Medium level of Openness.

- The male and female university students don't differ significantly in personality traits like Openness, Extraversion, Conscientiousness and Neuroticism.
- Male students different significantly with female students in personality trait of Agreeableness.

The present study aimed to analyze the gender differences between dimensions of Big Five personality. Future researches on the different aspects of Big Five Traits should be taken forward. As Males have scored high on Agreeableness hence in-depth study of trait of Agreeableness is needed to ascertain the reasons for males scoring higher in this trait. Impact of these traits on Subjective Well-being should also be studied to ascertain gender differences in this area.

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