Personality and Patterns of Facebook Usage

Dr. Anita Sharma
Associate Professor, Department of Psychology, Himachal Pradesh University, Shimla-5

Isha Jaswal
Research Scholar, Department of Psychology, Himachal Pradesh University, Shimla-5

DOI: 10.6007/IJARP/v2-i1/2064 URL: http://dx.doi.org/10.6007/IJARP/v2-i1/2064

Abstract
The gamut of the present study was to explore the relationship of Big Five with facebook usage among 200 students of Himachal Pradesh University (H.P.U) within the age range of 21-30 years with equal number of males and females. Data were analyzed in terms of Correlation analysis and Regression analysis. In males, extraversion explained the maximum variance (15%), followed by conscientiousness (5%), in all these variables have explained a variance of 20%. In females, agreeableness has explained the maximum variance (15%), followed by extraversion and conscientiousness; both explaining a variance of 5% each. On the whole, these variables have explained a total variance of 25% in females. The results have shown extraversion and conscientiousness as common variables in explaining the maximum variance in facebook usage in both the genders.

Keywords: Big Five, Facebook Usage, University Students.

Introduction

Social networking sites (SNS) have become one of the most popular means of online social interaction. It has caused great impact in our daily lives making us to be dependent upon it. Whether related to leisure or service, it continues to be an important feature around the globe. Individuals are able to share their views, and engage in endless discussions.

With the introduction of social networking sites, individuals are able to construct a public, semi-public profile in order to form connections with others. Internet was introduced in the early 1990 and has become a World Wide phenomenon growing in popularity (Streilein, 2000). One of the well-known social networking sites, facebook is becoming an increasingly natural environment for a growing fraction of the world population. Currently about 800 million users are spending more than 40 minutes on an average on this platform. It has become an important source of information in order to form impressions on others. The perception of a large number of people in today’s world is that, if our presence is not on the facebook then we may lose the trends of modern world. As the social networking sites are incorporated in every aspect of an individuals’ life, they are becoming an important part of their daily schedules. For them it is difficult to avoid these sites as these social networking sites are present on every phone, laptop thus adding more to their usage.
Dominick (1999) stated that internet is a way of turning individuals into producers of “mass communication content”. Since its creation in 2004, Facebook is being used by people all over the globe. Facebook is a means through which one can add friends, post information or even comment on other’s profiles. Many people using these sites make use of the privacy settings as some people might take advantage of the available information. One can talk to their friends through instant messaging and also serve as a source through which people may interact by liking other people status and poking them. Facebook users have their own online profiles. There are a number of factors influencing the usage of Facebook usage.

Many individuals may just be attracted towards these sites as a tool for entertainment they might go online just to form new relationships, not just with the familiar individuals but with the anonymous as well. Martin and Schumacher (2000) suggest that addictive users are more likely to go on-line to talk to others about their common interests and to find support and relaxation through social networking sites. We may say that the addictive users use a lot different reasons to stay online; in order to meet new people, for emotional support, to interact with individuals who share the same interests and many other factors.

Studies have found parental factors as playing an important role in the Facebook usage. As individuals are most dependent on their family environment for social and emotional support, it may contribute to be a major factor in becoming slave towards the Facebook usage. Yen and Chen (2007) found that internet addiction and other substance users experience the same factors that may lead them to become an addict, either internet or substance. They found the family factors of parental marital status, caregivers, intra-family conflict to play a major role in one’s Facebook usage.

Xu, Chen, Yan, Hu, Yang and Wang (2014) found worse mother-child relationships to be significantly associated with internet addiction leading to greater usage of social networking sites than worse father-child relationships. Marital status of “married-but-separated” and family structure of “left-behind children” were associated with more social networking sites usage.

Peer pressure can be another factor in influencing one’s dependency towards Facebook usage. Boutsouki (2014) found in a sample of 600 students, that one third of the sample holds a Facebook account because their friends had one. This may be due to the factor of online popularity and widening of social circles. A number of recent studies have also found a strong relationship between personality and Facebook profiles using the Neo-Five.

Personality has a dozen of meanings: popular, legal, grammatical, religious and psychological (Allport, 1937). Allport (1937) gave the most important and well known definition of personality. He defined personality as “the dynamic organization within the individual of his psychophysical systems that determine his unique adjustments to his environment.”

Thus, the term dynamic in the Allport’s definition of personality indicates that the different characteristics of a person interact with and modify one another. It also points out that changes can occur in the way a person behaves in a situation. The word organization implies that the personality is made up of a number of different traits, each one of them closely related to each other.
Researchers when asked the participants to find about the personality of others by analyzing their Facebook profiles were able to correctly list almost some of the personality traits. It has also been found that the owners of specific Facebook profiles reveal their actual rather than the ideal personality (Gosling, Gaddis and Vazire, 2008).

Amaichi-Hamburger and Vinitzky (2010) found extraversion as positively related to the number of friends and that high neuroticism leads to sharing of large amount of information than those moderately neurotics. They further found that greater openness to experience may lead to more utilization of personal information than with lower levels of openness to experience. It has been found that people with high extraversion show more preference for interpersonal interaction and social activity. Borman and Motowilde, (1993); Brown et al., (2002) found high agreeableness as related to self-presentation through self-promotion in social networking sites.

Wilson et al., (2012) utilized addictive tendency scale and found extraversion and low conscientiousness related to addictive tendencies and time spent on social networking sites. They found the relationship between extraversion and addictive tendencies. They stated that social networking sites satisfy their needs to socialize. People low on conscientiousness show more addictive tendencies with regard to social networking sites as compared to those scoring high on this trait. Facebook is also leading to the friendship addiction; women are seen to be more susceptible to friendship addiction.

Simoncic (2012) with the help of NEO PI-R found that there was no significant difference in neuroticism scores between males and females in relation to the usage of social networking sites (Facebook). While a significant difference in extraversion scores between genders was found, with males displaying slightly decreased levels of extraversion and females displaying slightly higher levels of extraversion.

Moore and McElroy (2012) found extraverts as having a significantly wider social network than introverts. Conscientious people tend to use the Facebook wall function significantly less than other individuals and individuals high in agreeableness were more likely to post wall content about themselves. However, only neuroticism was significantly related to the time spent on Facebook. A study by Hall (2013) sampled 100 Facebook users. Each of those individuals were asked to complete a personality survey. The researchers had 35 strangers who spent between 10 and 15 minutes on each of the Facebook users’ profile pages in order to see if those individuals could correctly gauge the personality of a subject. The study revealed that extraversion was the easiest personality trait for strangers to determine, followed by agreeableness and openness, only one cue revealed conscientiousness, and none helped detect neuroticism.

So as we know from the above studies that personality holds a strong relation with one’s Facebook usage thus:

The present study attempts to determine the relationship of Big Five factors with Facebook usage.
Aims and Hypotheses

The aim of the present study is to explore the relationship between personality and facebook usage. Due to individual differences in almost every aspect of life, we may predict that individuals will be different towards their approaches in facebook usage. This may be due to the personality differences among them.

Based on the goals of the present study the following hypotheses have been formulated:

1) Hypothesis one (H1): There will be a significant negative correlation between neuroticism and facebook usage.

2) Hypothesis two (H2): There will be a significant positive correlation between extraversion and facebook usage.

3) Hypothesis three (H3): There will be a significant positive correlation between openness to experience and facebook usage.

4) Hypothesis four (H4): There will be a significant positive correlation between agreeableness and facebook usage.

5) Hypothesis five (H5): There will be a significant negative correlation between conscientiousness and facebook usage.

2. Method

2.1 Sample

The sample of the study consisted of 200 university students between the age-group of 21-30 years with average age being 25 years. The sample of 200 students was equally divided into 100 males and 100 females.

2.2 Design

Correlational design was used to find out the relationship between independent variable of Big Five viz. neuroticism, extraversion, openness to experience, agreeableness, conscientiousness and dependent variable of facebook usage. In the second stage, step-wise regression analysis was used separately for males and females in order to see the best predictors of facebook usage.

2.3 Tools

Keeping in view the objectives of the present study, following tools were used:

1) Big-Five Personality Inventory (John & Srivastava, 1999)

It is a 44 items inventory, a Five Factors measure (dimensions) of personality. Each of the factors is then further divided into personality facets. This inventory is recreated by John & Srivastava in 1999. The administration time is 10-15 minutes.

The test consists of 44 statements that give the indication of the extent of presence of each of the five dimensions of personality in the individual. This test is found to be high on convergent and discriminant validity and a high internal reliability. This scale has alpha reliability quotient ranging from .90 to .94.

   Neuroticism (N): Neuroticism is defined as a tendency to experience unpleasant emotions easily such as anger, anxiety, depression, care, embarrassment, guilt, sadness,
Irritability or vulnerability. It is also known as emotional instability. Those who score high on neuroticism are emotionally reactive and are more vulnerable to stress.

**Extraversion (E):** Extraversion is characterized by energy, positive emotions, sociability, excitability, assertiveness, talkativeness, active and tendency to seek stimulation and the company of others. The trait is marked by pronounced engagement with the external world.

**Openness to Experience (O):** Openness is a general appreciation for art, emotion, adventure, aesthetic, imaginative, curiosity- as they are curious about their inner or outer world, have unusual ideas, seek variety of experiences and have a broad range of interests.

**Agreeableness (A):** Agreeableness includes characteristics such as trust, kindness, affection, altruism, helpfulness, sympathy, empathy and a tendency to be compassionate and co-operative rather than suspicious and antagonistic towards others. The trait reflects individual differences in general concern for social harmony.

**Conscientiousness (C):** Conscientiousness is a tendency to show self-discipline, act dutifully, thoughtfulness, goal directed behavior, determination, cleanliness, orderliness, self-control and aim for achievement.

2) **Facebook Usage Scale (Dr. Anita Sharma & Isha Jaswal, 2014)**

It is a 10 items scale that measures an individual’s facebook addiction with respect to the features of the facebook. It consists of six closed ended questions and four questions with multiple choices.

**Results**

The main objective of the present investigation was to explore the relationship of independent variable of Big-Five Personality factors, measured by Neo-Five-Factor inventory (John and Srivastava, 1999), with dependent variables of facebook usage (Anita & Jaswal, 2014), on the students of Himachal Pradesh.

**The results are presented variable wise:**

i) **Neuroticism and Facebook Usage**

Table 1 reveals that in males, Neuroticism (N) is found to be significantly and negatively correlated with facebook usage \((r = -.210^*, p < .05)\). But in regression, Neuroticism has not turned out to be a significant predictor. In females also, Neuroticism is found to be negatively correlated with the facebook usage \((r = .255^{**}, p < .01)\). However, in regression it has not turned out to be a significant predictor.

**Table - 1**

<table>
<thead>
<tr>
<th>Gender</th>
<th>Personality Factor (Independent Variable)</th>
<th>Facebook Usage (Dependent Variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Neuroticism</td>
<td>-.210*</td>
</tr>
<tr>
<td>Females</td>
<td>Neuroticism</td>
<td>-.255**</td>
</tr>
</tbody>
</table>
ii) Extraversion and Facebook Usage

Table 2 reveals that in males, Extraversion (E) is found to be significantly and positively correlated with the Facebook usage (r=.393**, p< .01) and Table 6 shows that, Extraversion has explained a variance of 15% in Facebook usage (F-ratio= 18.19**, p<.01). In females also, Extraversion (E) is found to have a significant and positive correlation with the Facebook usage (r=.332**, p< .01). Table 7 reveals that, Extraversion has explained a variance of 5% in Facebook usage (F-ratio= 8.47**, p<.01).

### Table- 2
Correlation between Extraversion and Facebook Usage

<table>
<thead>
<tr>
<th>Gender</th>
<th>Personality Factor (Independent Variable)</th>
<th>Facebook Usage (Dependent Variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Extraversion</td>
<td>.393**</td>
</tr>
<tr>
<td>Females</td>
<td>Extraversion</td>
<td>.332**</td>
</tr>
</tbody>
</table>

** p< .01

iii) Openness and Facebook Usage

In males, Openness (O) is found to be significantly and positively correlated with the Facebook usage (r=.197*, p< .05). But in regression openness has failed to turn out to be a significant predictor. In females also, Openness (O) is found to be significantly and positively correlated with the Facebook usage (r=.218*, p< .05). But in regression, openness has failed to turn out to be a significant predictor. (For details see Table 3).

### Table - 3
Correlation between Openness to experience and Facebook Usage

<table>
<thead>
<tr>
<th>Gender</th>
<th>Personality Factor (Independent Variable)</th>
<th>Facebook Usage (Dependent Variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Openness to Experience</td>
<td>.197*</td>
</tr>
<tr>
<td>Females</td>
<td>Openness to Experience</td>
<td>.218*</td>
</tr>
</tbody>
</table>

**p< .01, *p< .05

iv) Agreeableness and Facebook Usage

In males, no significant correlation and regression was found for Agreeableness (A) with the Facebook usage. Whereas in females, Agreeableness (A) is found to have a positive

**p< .01, *p< .05
correlation with the Facebook usage ($r=.387^{**}, p<.01$) and has explained a variance of 15% in Facebook usage (F-ratio= 27.13**, $p<.01$). (For details see Table 4 and Table 7).

**Table 4**
Correlation between Agreeableness and Facebook usage

<table>
<thead>
<tr>
<th>Gender</th>
<th>Personality Factor (Independent Variable)</th>
<th>Facebook Usage (Dependent Variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Agreeableness</td>
<td>.113 (N.S)</td>
</tr>
<tr>
<td>Females</td>
<td>Agreeableness</td>
<td>.387**</td>
</tr>
</tbody>
</table>

**p< .01, *p< .05**

v) Conscientiousness and Facebook Usage

In males, Conscientiousness (C) is found to be significantly and negatively correlated with the Facebook usage ($r=-.274^{**}, p<.01$) and has explained a variance of 5% in Facebook usage (F-ratio= 8.07**, $p<.01$). In females also, Conscientiousness (C) is found to have a significant negative correlation with the Facebook usage ($r=-.313^{**}, p<.01$) and has explained a variance of 5% (F-ratio= 7.94**, $p<.01$). (For details see Table 5, 6 and 7).

**Table no. 5**
Correlation between Conscientiousness and Facebook Usage

<table>
<thead>
<tr>
<th>Gender</th>
<th>Personality Factor (Independent Variable)</th>
<th>Facebook Usage (Dependent Variable)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Males</td>
<td>Conscientiousness</td>
<td>-.274**</td>
</tr>
<tr>
<td>Females</td>
<td>Conscientiousness</td>
<td>-.313**</td>
</tr>
</tbody>
</table>

**p< .01, *p< .05**

**Table 6**
Regression of Big-Five on Facebook Usage in Males’ Sample (N=100)

<table>
<thead>
<tr>
<th>Variables</th>
<th>Order of Entry</th>
<th>r</th>
<th>R</th>
<th>Beta Weight</th>
<th>$R^2$</th>
<th>$R^2$ Change</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Extraversion</td>
<td>1</td>
<td>.393**</td>
<td>.393</td>
<td>.393</td>
<td>0.154</td>
<td>0.154</td>
<td>18.19**</td>
<td>.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>2</td>
<td>-.274**</td>
<td>-.451</td>
<td>-.317</td>
<td>0.203</td>
<td>0.049</td>
<td>8.07**</td>
<td>.01</td>
</tr>
<tr>
<td>Total Variance</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>20%</td>
</tr>
</tbody>
</table>

**p< .01, *p< .05**
Table 7

<table>
<thead>
<tr>
<th>Variables</th>
<th>Order of Entry</th>
<th>R</th>
<th>R^2</th>
<th>Beta Weight</th>
<th>R^2 Change</th>
<th>F</th>
<th>Sig.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Agreeableness</td>
<td>1.</td>
<td>.387**</td>
<td>.387</td>
<td>.387</td>
<td>.149</td>
<td>27.13**</td>
<td>.01</td>
</tr>
<tr>
<td>Extraversion</td>
<td>2.</td>
<td>.332**</td>
<td>.424</td>
<td>.321</td>
<td>.179</td>
<td>8.47**</td>
<td>.01</td>
</tr>
<tr>
<td>Conscientiousness</td>
<td>3.</td>
<td>-.313**</td>
<td>.476</td>
<td>-.288</td>
<td>.227</td>
<td>7.94**</td>
<td>.01</td>
</tr>
<tr>
<td>Total Variance</td>
<td>Explained</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>25%</td>
</tr>
</tbody>
</table>

**p<.01, *p<.05

Discussion

The Big-Five Factors of personality are five domains which define human personality. These factors being consistent irrespective of language or culture exist in human for physical survival and reproductive success. Extraversion and emotional stability are seen to help the individuals in attaining dominance and mate selection. Conscientiousness and Agreeableness have emerged as important factors in group survival as well as in reproduction and care of the children. Finally, Openness to experience may be the basis for problem solving and creative activities that could affect the ultimate survival of the species. Overall these traits reflect the ways in which we are biologically prepared to think about and discriminate among people. The results have been discussed variable wise.

i) Neuroticism and Facebook usage:

It mainly refers to one’s tendency to experience negative emotions such as anger, anxiety and depression. (For details see figure 1). It is also used to refer to instability or stability of emotions. Individuals high on neuroticism show more reactivity than those low on this trait. Individuals low on neuroticism tends to be more involved in social interactions.

The results of the present study revealed a negative relationship between facebook usage and Neuroticism. The results are in line with the previous researches. Much of the research presented states neurotics as conscious of self-presentation (Sediman, 2013). The social networking site of facebook is a social community meant for interaction and related self-presentation. As facebook community requires the interaction and exposure of self, it might evoke a little negative response on the part of neurotic individuals, being more sensitive to rejection and seeking acceptance.

Laffond and Mossler (2013) found Neuroticism to have a negative relationship with the number of friends on facebook and also with its usage. Sala, Skues and Grant (2014) also stated neuroticism as related to fewer friends on facebook. They were found to limit their exposure on facebook. This shows that individuals high on neuroticism tend to keep their interaction level
limited allowing themselves to have only a few friends on facebook. They have avoidant style, they don’t like to get attached to other individuals and don’t like to rely on others.

**Hence the hypothesis one (H1):** “There will be a significant negative correlation between neuroticism and facebook usage is accepted.”

**ii) Extraversion and facebook usage:**

It refers to a number of activities, a sense of surgency. This trait is marked by an engagement in the external world. Extroverts tend to enjoy talking to people and are often perceived as full of energy. They are enthusiastic, action-oriented and have high group visibility and love to interact. As extroverts tend to fulfil their social needs in the real world, they might require the social networking sites in order to fulfil them. On the other hand, introverts tend to be low on energy and interaction levels.

The results of the study revealed a positive relationship between Extraversion and facebook usage for both males and females. (For details see figure 1). The results are consistent with the previous researches. When we talk about extraversion and facebook usage, individuals high on this trait have been found to have a positive relation with the facebook usage.

They are found to use internet as it makes us appealing due to their high level of stimulation and social circle (Costa & Widiger, 2002). Extraverts are also found using the facebook as a means of social extension to communicate with friends and contacts (Ryan and Xenos, 2011). Moore & McElroy (2012) in their study also found a positive relationship with one’s faceboook usage and the trait of extraversion. Extraversion also predicts greater direct social engagement and non-direct social engagement (Guadagno & Muscanell, 2012). Extraverts are more likely to reach out and interact with people on facebook. They are more active in sharing their whereabouts and their feelings with other people and let other people respond to them.

**Hence the hypothesis two (H2):** “There will be a significant positive correlation between extraversion and facebook usage is accepted.”

**iii) Openness to experience and facebook usage:**

Individuals high on openness to experience have great appreciation for art, adventure, imagination and have curiosity regarding the new experiences. They tend to be more creative and aware of their feelings. On the other hand, people who are low on openness tend to have more traditional and conventional interests.

The results of the study have revealed a positive relationship between openness to experience and facebook usage and are consistent with the previous research. (For details see figure 1). This trait has been associated with diligence and intelligence (Digman, 1990). Individuals high on openness to experience prefer online communication, probably due to facebook’s characteristic of meeting new people who are geographically dispersed and with different interests (Correa et al., 2010).
Quercia, Casas, Stillwell, Kosinski, Almeida, and Crowcroft, (2012) found openness as related to the use of Facebook facilities. The trait is found predictive of high usage of the Facebook. As we know Facebook is a forum consisting of a variety of features and offer exposure into a variety of activities. This trait unable to satisfy its thirst for new experiences would go to any extent to look for them.

Oldmeadow, Quinn & Kowert (2013) studied the relationship between personality and related social skills in the usage of Facebook. They found individuals low on the trait of Openness to experience as holding a negative attitude towards the Facebook usage. The individuals higher on trait were seen to frequently use the site for a variety of purposes. Being high on exposure they explore the various aspects of relationship on Facebook.

Hence the Hypothesis three (H3): “There will be a significant positive correlation between openness to experience and Facebook usage is accepted.”

![Figure 1: Intercorrelations between Facebook Usage and the Big Five factors (Neuroticism, Extraversion, Openness to experience, Agreeableness and Conscientiousness) for both males and females.](image)

iv) **Agreeableness and Facebook usage:**

Individuals high on this trait tend to have greater concerns for harmony. They are generally trusting, generous, kind and helpful. As we know that it is a social trait thus it positively correlates with one’s relationship with the group. We may say that people high in agreeableness will be more inclined towards the usage of the internet facilities as well, especially Facebook through which one can interact with others. They talk about themselves generally in positive terms and avoid negative issues, hence demonstrating impression management tactics (Fullwood, Nicholls and Makichi, 2014).

The results of the present study revealed a positive relationship of Agreeableness with the Facebook usage in females but non-significant in the case of males. (For details see figure 1).
This trait is found in abundance in females, being one of their chief characteristics. Thus, we may say that females who are high on this trait will be more prone to the usage of the social networking sites. Agreeable individuals are found to be more motivated to maintain positive relationships with others (Campbell & Graziano, 2004). Social networking site of facebook is all about maintaining good relations with others, interacting with them and keeping a positive regard for them. Women have always been the one keeping positive regard among others, helping people in need and taking care of others. They have agreed upon and made compromises in life, keeping in mind other individuals’ happiness.

**Hence the Hypothesis four (H₄):** “There will be a significant positive correlation between agreeableness and facebook usage is partially accepted.”

v) **Conscientiousness and facebook usage:**

It refers to an individual’s ability to show self-discipline, to act dutifully. It refers to how well people can control and regulate their impulses. The results of the study revealed a negative relationship between conscientiousness and internet usage. (For details see figure 1). Facebook usage is one such social networking site, offering interaction and time away from one’s duties.

Conscientiousness has been found to be significantly related to the quality and quantity of interpersonal relationships, suggesting that conscientious individuals may use facebook to seek and maintain social connections (Sediman, 2013). They are seen to be cautious online. Conscientious individuals are seen to avoid social media which they consider a distraction from their duties (Hughes, Batey, Lee & Rowe, 2013). Conscientious people are less eager to show their appreciation for an object or a group. It may be the case that conscientious individuals are better organized and less spontaneous individuals, considering the facebook usage as a mere waste of time and distraction from other activities such as work and thus make fewer groups. Wilson et al. (2012) found in a study on school students that individuals low on this trait tend to spend more time on facebook as compared to the individuals high on this trait. They are considered to be very diligent and organized.

**Hence the Hypothesis five (H₅):** “There will be a significant negative correlation between conscientiousness and facebook usage is accepted.”

**Conclusion**

Overall, the research findings have shown that the Big-Five Factors hold a close relationship with one’s facebook usage. In short, we may say that Neuroticism and Conscientiousness holds a negative relationship with the facebook usage, whereas Extraversion, Openness, and Agreeableness hold a positive relationship with the facebook usage. Thus, we may say that certain traits of individuals’ personality make them more prone towards its addiction, while others keep them at bay regarding the social networking sites usage. Thus, indicating a strong relationship between the two.

**References**


