




Investigating the relationship between personality traits and motivations to use social media among university students in Pakistan

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ABSTRACT

The research endeavors to investigate the relationship between big five personality traits and the motivations to use social media in a Pakistani context. The big five personality traits (agreeableness, extraversion, openness to experience, conscientiousness, and neuroticism) provide a broad framework for understanding and describing personality and its impact on individuals. The survey was conducted among 910 respondents from the major cities of Pakistan. The respondents were students aged from 18 to 35 years, active social media users. There were positive correlations between personality traits and motivations to use social media. Agreeableness was a significant predictor of motivations to use social media. All personality traits depict a moderate to strong relationship with information seeking. Neuroticism tends to have a low to moderate correlation with motivations to use social media. Gender differences were sought among the personality traits, and neuroticism was a predictor of gender difference. The study's findings suggest that personality traits significantly influence the utilization and involvement in social media.

Keywords: social media, personality, extraversion, openness to experience, neuroticism, conscientiousness, agreeableness

INTRODUCTION

The rapid growth of social media platforms like Facebook, Instagram, Twitter, and others has significantly changed how people interact online, share information, communicate, and exchange ideas. Kietzmann et al. (2011) describes social platforms as a highly interactive environment enabling users to create, modify, and discuss user-generated content that encapsulates their essence. Several widely used social media platforms emerged around the turn of the millennium and throughout the following decade. Examples include MSN Messenger, launched in 1999; Myspace, introduced in 2003; Facebook, established in 2004; Twitter, created in 2006; Instagram, debuted in 2010; and Snapchat, launched in 2011.

In recent years, the emergence of information and communication technologies, or ICTs, has revolutionized culture, turning it into one centered around information. Concurrently, the evolution of ICTs has opened avenues for advancements in media, online communication, and collaborative platforms. According to Dufva and Dufva (2019), modern society is increasingly digitalized and interconnected, with computers and algorithms facilitating everyday tasks. Bahrini and Qaffas (2019) found that ICTs also have improved access to information and knowledge in terms of speed, scale, and breadth.

Anastasiadis et al. (2018) found that in today's world, people are looking for direct connectivity. They prioritize social interaction, expect instant responses, and want to be able to access information immediately. This helps them form their identity within adaptive communities. There is a demand for quick, targeted, and updated information as well as concise and swift communication. Social media is a platform that has grown in popularity as a way for people to interact, communicate, collaborate, create, and share content. It has become one of the most popular forms of online interaction and an essential part of everyday life because it addresses their needs and preferences. Social media was used by approximately 2.65 billion people worldwide in 2018. According to Statista (2023), the global number of social media users is 4.95 billion.

Töröcsik et al. (2014) state that although various demographic groups do not equally benefit from the advancements in digitalization, individuals across each generation undergo a similar global upbringing, influenced by the interconnectedness found on the social networks along with the internet. Kanakaris et al. (2019) found that as a result they share an international culture that is shaped primarily by their interaction with ICTs, other people, and the world at large. Rosen (2011) studied significant differences in how individuals from various population groups, generations, and age ranges use social media. These include their attitudes, values, and how they multitask, communicate, socialize, and create content. This distinct social behavior is influenced by the individual's personality traits. Personality characteristics are typical, consistent patterns of feeling, thinking, or acting that tend to persist through time (Soto, 2018).

Personality & Motivations to Use Social Media

In recent years, social media has been a key component in the modern world. It has overcome geographical and time barriers and changed the dynamic of social interactions. These principles include transparency, individualization, grassroots communications, collaboration, and the dissemination of knowledge (Makkonen et al., 2019). These platforms, which are classified as interactive and web-based arenas, allow for the creation, discussion, adaptation, and exchange of user generated content (Kaplan & Haenlein, 2009; Lampropoulos et al., 2020; Zolkepli & Kamarulzaman, 2015). They are built on the technological and philosophical tenets that underpin Web 2.0. By providing a shared information space, social media platforms enable individuals to engage in diverse social interactions and interactive endeavors, fostering communication, collaboration, and participation (Pallis et al., 2011).

Gil de Zúñiga et al. (2017) state that these platforms adhere to hybrid media logic and result in self-guided interfaces that offer diverse experiences to users. Some people view them as virtual communities that let users share their profiles (Hughes et al., 2012). Others see them as virtual compilations (Dwyer et al., 2007). They cultivate motivational factors, including fostering a feeling of belonging and promoting social interaction. (Ozguven & Mucan, 2013). Social media encompasses a variety of platforms. This includes social networks, blogs, and collaborative news platforms. Mangold and Faulds (2009, p. 357-365) find that this includes podcasts, open-source communities, and ecommerce as well as platforms for sharing creative works and educational materials. Diverse user personas are also present within these platforms. Aimia's report on research identified six distinct "personas" for social media based upon behavioral variables like trust and control (Rozen et al., 2012). It is important to understand how personality traits affect users' involvement and engagement in social media.

Whiting and Williams (2013, p. 362-369) "identified 10 motivations for using social media: social interaction, information seeking, passing time, entertainment, relaxation, communicatory utility, convenience utility, expression of opinion, information sharing, and surveillance or knowledge about others".

Personality psychology delves into identifying and examining the inclinations that provoke distinctions in behavior, stemming from environmental as well as biological influences. The word "personality," which is derived from the Latin "persona," refers to the masks worn by ancient Greek actors during dramas. It often refers to an individual's appearance (Cervone & Pervin, 2013). While a consensus definition of personality is still elusive, most theories focus on motivation and how one interacts with one's environment (Kaplan & Sadock, 1989). Although the variety of theories and definitions may seem confusing, they are still useful and informative and provide insights into the fascinating exploration of "self."

Rogers (1959) defined personality or the "self" as an organized and lasting conceptual framework that encompasses perceptions of attributes and associations related to the "I" or "me," along with the significance

assigned to these concepts. Allport (1960), on the other hand, posited that personality is the way an individual responds and adapts to their social environment. Specifically, personality manifests as an inherent quality influencing characteristic behavioral and cognitive pattern. Eysenck (2013) considered environment and heredity as foundational elements in shaping an individual's personality. Eysenck (2013) also emphasized the relative stability in personality; he explained its role in determining a person's unique adaptation to their environment. This includes character, intellect, and body. Character refers to a person's behavior. Temperament is related to their emotional reactions, intellect is linked to their cognitive abilities, and physique relates to the physical configuration of the body and neuroendocrine features (Mangal, 2009; Singh, 2012).

Goldberg (1981) characterized personality traits, as follows:

"Neuroticism refers to an individual's inclination to encounter negative emotions and anticipate unfavorable events. Extraversion is characterized by a person's inclination to socially express themselves in an outgoing manner. Openness to experience involves appreciating alternative viewpoints, possessing intellectual curiosity, and desiring artistic pleasures. Agreeableness is marked by a tendency to be dependable, sympathetic, and cooperative. Conscientiousness is defined by a predisposition to plan and exhibit diligence and fairness" (Ross et al., 2009, p. 578-586).

The big five personality traits have remained under use for exploratory research beyond disparate situations and cultures for around a decade (McCrae & Costa, 2004).

Faiz et al. (2023) studied personality traits' impact on social media compulsive usage among youth in Pakistan. Faiz et al. (2023) state that an individual's personality traits can predict whether they will use their smartphone in a productive or destructive way. People with flexible personalities and behaviors are better at using smartphones and can have a more socially active life. There are no thresholds for the long-term effects of smartphone use on this personality trait holder. It is because, apart from these independent factors, other uncontrollable variables can make anyone a smartphone user, regardless of their psychic attributes.

Ahmed et al. (2021), while studying students' personality traits on social networking sites usage, benefits, and risks in Pakistan, found that individuals with the extraversion trait are more likely to use social media negatively. In contrast, individuals with the conscientiousness trait are more likely to use social media moderately and positively impact their health, education, and everyday life. People with neuroticism, however, are more likely to use social media than other personality types without weighing the risks and benefits. People with extraversion and conscientiousness can better judge the risks and benefits of social media than the ones with other personality traits. There was a significant difference between the personality traits and individuals' risk of using social media, but there was no difference in social media benefits.

Extraversion

Extraversion has several distinguishable facets, such as positive emotion, excitement seeking, gregariousness, warmth, assertiveness, and activity. Computer mediated communication (CMC), for example, the internet, has been shown to positively affect interpersonal communication among those with high levels of extraversion. However, it can also negatively influence those low in this trait (Kraut et al., 1998, 2002).

Research has shown that people scoring high in extraversion tend to have positive social effects on internet use, while people scoring low in extraversion may have negative social effects (Hertel et al., 2005). The difference in CMC usage between people who score high or low on extraversion could be due to how they believe their identity should be communicated. Extraverts may prefer to use the Internet to transfer their abilities developed in non-mediated environments to online environments. At the same time introverts may find computer-mediated communication to be more suitable as it allows them to reflect and refine their message before they convey it to others (Hertel et al., 2005). So, the study puts forward the following hypothesis:

H1. Extraversion is positively related to social media usage for escape, entertainment, companionship, pass time, and information seeking.

Openness to experience

Openness to experience includes feeling, fantasy, ideas, value, actions, and aesthetics. These facets measure a person's creativity, imagination, emotions, attitude towards new ideas, willingness to try new things, intellectual curiosity, and art appreciation. Those who score high on openness are more likely than others to embrace new ideas, be more creative, and embrace changes. Conversely, those who score low tend to hold more traditional beliefs and to prefer them (John, 1990). Openness to experience's "actions" facets measures an individual's willingness to take on new experiences. People who are high in openness to experience tend to be willing and able undertake unfamiliar activities. The "ideas" facet reflects a person's intellectual curiosity and openness to new ideas. The "aesthetics" facet measures a person's appreciation for the arts (LePine et al., 2000). The study investigates the following hypothesis:

H2. Openness to experience is likely to have a positive relationship with escape, entertainment, companionship, pass time, and information seeking.

Agreeableness

Agreeable individuals have more social connections on social media, which they can leverage to their advantage. Researchers have also found that individuals who are agreeable are more likely than others to take part in pro-social actions, like volunteering or donating to charities, which could translate into a higher likelihood of these activities taking place on social media (Costa & McCrae, 1992a). Overall, these traits and tendencies suggest that social media can provide a supportive environment for agreeable individuals, and can help facilitate their social connections, both online and offline.

As these studies suggest, offline behaviors of people high in agreeableness are characterized by a focus on positive communication and the creation of favorable impressions. In the online setting, similar tendencies are observed. For example, Amichai-Hamburger and Vinitzky (2010) discovered that people who scored high on agreeableness were likelier to spend time on social media and had a larger number of online friends. This may be due to their tendency to communicate positively and build strong relationships online as well as off-line settings. This tendency may also lead to greater self-disclosure on social media, as agreeable people are more likely to trust others and feel comfortable sharing personal information (Costa & McCrae, 1992b). Additionally, research has shown that agreeable people are more likely to engage in impression management in online settings as well, using features such as profile pictures and personal information to present themselves in a favorable light (Cox, 2010). The study investigates the following hypothesis:

H3. Agreeableness is positively related with social media usage for escape, entertainment, pass time, and information seeking and companionship.

Conscientiousness

The six facets of conscientiousness—self-discipline, achievement striving, competence, dutifulness, deliberation, and order—reflect aspects of the trait such as an individual's ability to work regardless of the situation, the level of thought put into tasks, and adherence to self-imposed rules and standards of conduct (Costa & McCrae, 1992a; Digman & Inouye, 1986). People high in conscientiousness are seen as having high self-efficacy, believing in their ability to accomplish goals (Gellatly, 1996).

People high in conscientiousness tend to allocate more time to tasks and allocate more time to complete a reading task than those low in conscientiousness (Josephs & Hahn, 1995). According to Rubin (1983), media use can be either instrumental or ritualistic, with instrumental media use being more goal-directed and habitual media use being more repetitive. Conscientiousness has been shown to negatively relate to time spent on the Internet and computer-mediated-communication, suggesting that media use for people high in conscientiousness may be more instrumental (Butt & Phillips, 2008; Landers & Lounsbury, 2006; Swickert et al., 2002). The study investigates the following hypotheses:

H4. Conscientiousness is positively related with social media usage for escape, companionship, entertainment, and information seeking.

H5. Conscientiousness is negatively related to social media usage for pass time.

Neuroticism

Individuals with high levels of neuroticism often avoid social interactions due to their emotional instability, which results from various facets of the trait (Zuckerman & Litle, 1986). These facets include impulsivity, anger/hostility, and depression. Impulsivity affects self-control, while anger/hostility is a tendency towards frustration and easily being angered depression results in feelings of guilt and sadness. People with high levels of neuroticism are prone to greater emotional swings and these facets contribute to their avoidance of social interactions (Digman, 1990)

The studies of the PEN (Eysenck, 1967) and FFM typologies (Costa & McCrae, 1992b; Digman, 1990; Goldberg, 1990) have shown that neuroticism has a significant impact on media use, especially regarding television (Weaver, 1991). People with high neuroticism are found to watch more news programs and use television for purposes such as habit, escape, and distraction. Neuroticism has been shown to be a strong predictor of television use. The study put forwards the following hypotheses.

H6. Neuroticism is positively related with social media usage for escape, companionship, pass time, entertainment, and information seeking.

Consistent gender variations in traits associated with neuroticism have been reported, with women consistently scoring higher than men (Lynn & Martin, 1997). Feingold (1994) observed that women exhibited higher levels of anxiety, while Nolen-Hoeksema (1987), in a review of general population surveys, noted that women scored higher in symptoms of depression. Kling et al. (1999) found that women scored lower than men in measures of self-esteem. So, it is hypothesized:

H7. Female students exhibit significantly higher levels of neuroticism compared to male students.

MATERIALS & METHODS

To determine the relationship between big five personality traits and motivations to use social media, a cross-sectional research design was employed ([Appendix A](#)).

Measures

A survey questionnaire was adapted to collect data from respondents. Social media usage motivations (escape, entertainment, pass time, and companionship) were dependent variables while personality traits (extraversion, openness to experience, conscientiousness, agreeableness, and neuroticism) were independent variables.

The uses and gratification scale recognized by Rubin (1981) was used in the study to measure the motivations to use social media. Five subscales (escape, entertainment, companionship, information seeking, and pass time) with 20 items were used. Each statement was scored on a five-point Likert scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agreed. Cronbach's alpha for the scales were .75, .89, .71, and .90, respectively.

To measure personality traits, a scale developed by Goldberg (1999) known as the big five personality scale was used. Five subscales (extraversion, agreeableness, openness to experience, conscientiousness, and neuroticism) with 50 items were used. Each statement was scored on a five-point Likert Scale: 1=strongly disagree, 2=disagree, 3=neutral, 4=agree and 5=strongly agreed. Cronbach's alpha for the scales were .72, .75, .80, .85, and .81, respectively.

Procedure

For data collection, we obtained the necessary permissions from the institutes. Ethical procedures were carried out for a smooth collection of data. A total of 1,000 questionnaires were circulated, and 940 questionnaires were received back. The questionnaires that were incomplete or incorrectly filled out were all rejected. After using various data cleaning methods, 910 questionnaires were considered final (response rate 91.0). The survey was conducted in accordance with consent and the undertaking that no harm would be done to the integrity of the institution. The survey in its entirety was not taken out of context. Information about participants was not used for any other purpose than academic research. The survey was voluntary in nature. Participants were assured of their anonymity and confidentiality.

Table 1. Correlation of conscientiousness, openness to experience, extraversion, agreeableness, neuroticism with escape, pass time, companionship, & entertainment

Variables	Escape	Pass time	Companionship	Entertainment	Information seeking
Conscientiousness	.383**	.449**	.282**	.299**	.532**
Openness to experience	.279**	.271**	.345**	.294**	.451**
Extraversion	.272**	.269**	.302**	.261**	.332**
Agreeableness	.345**	.337**	.332**	.332**	.651**
Neuroticism	.266**	.257**	.274**	.239**	.412**

Note. Correlation: **p<.01

Table 2. Differences between personality traits of female & male social media users

Variables	Male (n=373)		Female (n=537)		t	p	95% CI		Cohen's d
	M	SD	M	SD			LL	UL	
Neuroticism	25.09	6.95	24.10	5.49	-2.26	0.023	-1.70	-.12	-0.9400
Extraversion	23.40	7.00	23.40	5.90	-0.86	0.930	-0.80	0.81	-0.3700
Openness to experience	25.20	7.40	25.10	7.10	-0.19	0.840	-1.06	0.86	-0.0009
Conscientiousness	23.10	7.00	22.60	6.00	-1.10	0.230	-1.30	0.33	-0.5200
Agreeableness	24.70	6.90	25.10	5.40	0.81	0.410	-0.50	1.31	0.3800

Note. CI: Confidence interval; LL: Lower limit; UL: Upper limit M: Mean; SD: Standard deviation

RESULTS

The study participants were 910 university students of Pakistan aged 18 to 35 years. There were 59.0% female respondents and 41.0% male respondents. Among them, there were 794 (87.0%) from undergraduate programs, 23 (2.5%) from master's degree programs, 73 (8.5%) from MPhil degree programs, and 16 (1.8%) from PhD. Further, 302 (33.2%) were from Lahore, 200 (22.0%) from Islamabad, 147 (16.2%) from Quetta, 149 (16.4%) from Karachi, and 112 (12.3%) from Peshawar.

Table 1 shows the correlations between the personality traits and motivations to use social media.

Pearson correlation was used to test the relationship between personality traits and motivations for using social media. **Table 1** shows that conscientiousness happens to have a positive relationship with motivations to use social media, a moderate positive with pass time and information seeking, whereas low positive with escape, companionship, and entertainment. Openness to experience depicts a moderate to low positive relationship with motivations to use social media. Agreeableness has a moderate positive relationship with pass time, entertainment, companionship and escape, whereas a strong positive relationship with information seeking. Neuroticism on the other hand has a low to moderate positive relationship with motivations to use social media. Moreover, all the personality traits have a positive relationship with motivations to use social media. As for hypotheses, **H1**, **H2**, **H3**, **H4**, and **H6** were accepted and **H5** was rejected.

Independent samples t-test was employed to see if there were any differences between male and female students for neuroticism.

Table 2 shows that there was significant difference between the mean differences of the female and male respondents for neuroticism. As female students of Pakistan exhibited lower levels of neuroticism, and it was hypothesized that "female students exhibit significantly higher levels of neuroticism compared to male students", so **H7** has been rejected.

DISCUSSION

Personality traits majorly impact on a person's daily life, professional development, and the frequency, manner, and motivation with which they interact on social media. However, it's reasonable to admit that different personality traits will have different degrees of influence in certain situations.

The hypotheses looked at the role played by social media when it comes to finding companionship. Flanagin and Metzger (2001) identified social bonds as a popular use of CMC technology. McKenna et al. (2002) reported that naturally social people extend this trait online. This hypothesis was built upon and suggested that extraversion is positively relates to social media use for companionship. The results of the analysis

supported this hypothesis, revealing a moderate positive association between extraversion, openness to experience, and agreeableness with companionship. In contrast, conscientiousness and neuroticism exhibited a low to moderate relationship with companionship. Amiel and Sargent (2004) findings demonstrated a positive connection between neuroticism through Internet use and a "belongingness" feeling, could possibly explain these outcomes. Pakistani youth tend to use social media when finding companionship, which has been an offshoot of the popularity of CMC technologies in this part of the world.

The hypothesis explored the use of social media to escape and proposed a positive relationship between extraversion and social media usage for this purpose. This prediction drew inspiration from Charney's (1996) research, which explored Internet use for diversion and entertainment, highlighting the sociable and outgoing nature of extraverts. It was hypothesized that the social dimension of social media would offer extraverts an appealing avenue for escape. The results of the analysis supported this hypothesis. While Singer's (1980) work suggested that neurotic individuals turn to media for escape.

The relationship between entertainment as a motivation to use social media and extraversion posited that extraversion was positively associated with the use of social media as an entertainment tool. Despite extraversion having shown inconsistent predictive patterns in media use, conventional communication mediums are often devoid of social elements. Given that "gregariousness" is a facet of extraversion, individuals scoring high on this trait will likely seek entertainment satisfying their social needs. The results supported this hypothesis. While agreeableness, conscientiousness, openness to experience, and neuroticism also showed a positive relationship with social media consumption for entertainment purposes.

A positive relationship between extraversion and the tendency to seek information was expected. In contrast to Finn's (1997) claim that extraverts may prefer non-textual media for mass communication messages and Elliot and Sapp's (1988) assertion that extraverts use fewer media in general to obtain mass media information. The results showed a low-to-moderate relationship between extraversion and information seeking. Conversely, conscientiousness, neuroticism, agreeableness, and openness to experience exhibited significant associations with information seeking.

It was hypothesized that openness to experience is positively related to all the motivations to use social media. The proposition originates from the dimensions of openness and is influenced by the research of Ross et al. (2009), which indicated that individuals with high levels of openness tend to be more socially active online and show a willingness to embrace new online technologies (Guadagno et al., 2008; Marcus et al., 2006). This implies that those with high openness may also be more predisposed to utilize features facilitating the organization of social activities on social media. The results approved the hypothesis.

A positive correlation between agreeableness, and the use of social media as a companionship tool was proposed. Valkenburg and Peter (2007), using research on dating websites and supporting the hypothesis "rich get wealthier" (Kraut et al., 1998, p. 1017-1031), found that people with lower levels of dating anxiety are more likely to use these services. It was reasonable to expect that agreeable individuals would be adept at forming friendships offline (Costa & McCrae, 1992a). The analysis confirmed this hypothesis.

Although the original expectation was that social media would be used more by agreeable people to form relationships, it is important to note that social media platforms are primarily used for organizing and communication with existing social groups. Social networking sites on the other hand are designed specifically to increase one's network. The analysis shows that social networking sites can serve this purpose along with others. It also indicates that people may use multiple platforms to initiate and maintain relationships.

The hypothesis proposed the use of social media for pass time and habitual engagement, anticipating that there would be a negative correlation between conscientiousness (i.e., the ability to do something well) and the usage of social networks for time passing. Based on previous research that characterized people with high levels of conscientiousness (Costa & McCrae, 1992a), as being responsible and industrious (Peabody & de Raad, 2002; Saucier & Ostendorf, 1999), we hypothesized that these individuals would demonstrate intentional and purposeful media usage. This analysis did not support the hypothesis. This means that individuals with high level of conscientiousness may also use social media for pass time in Pakistan. As personality traits and social media use and motivations may vary across cultures and time periods, the results differ from the Western world.

Neuroticism has been examined as a potential predictor of social media usage and the pleasures that can be derived from it. The analysis showed neuroticism to be a positive predictor of social media usage for escape, pass time, entertainment, information seeking, and companionship. Singer (1980), in an earlier study, identified neuroticism's role as a predictor of using television as a means of escape. This present study confirms the positive correlation between neuroticism and social media usage to escape.

Ehrenberg et al. (2008) found that neuroticism is positively correlated with using social media as a companionship tool observed that neurotic people prefer mediated communication. This positive relationship also supports Gombor and Vas's (2008) research, which revealed that people who score high on neuroticism are more likely to use the Internet as a companion. It seems that neurotic people are more likely to use media as a companion, as Weaver (2003) found a positive correlation between neuroticism, and television usage. Blackwell et al. (2017) found neuroticism to be a predictor of social media use along with FOMO and extraversion.

It was hypothesized that females exhibit significantly higher levels of neuroticism compared to male students. It was based on previous studies that neuroticism encompasses a broad spectrum of negative emotions, including tendencies toward anxiety, anger, depression, shame, and other distressing feelings (Feingold, 1994; Lynn & Martin, 1997; Nolen-Hoeksema, 1987). There were significant differences between the neuroticism levels of female and male students, but Pakistani females exhibited lower levels of neuroticism, which is not in line with previous research (Feingold, 1994; Kling et al., 1999; Lynn & Martin, 1997; Nolen-Hoeksema, 1987).

CONCLUSIONS

The study examined the relationship of personality traits with motivations to use social networks. A decade of rapid expansion of social networks online, as well as the substantial time spent using them, have sparked research on the uses and satisfactions that individuals get from this method of communication. This study aimed to determine the influence of the big five personality traits on motivations for social media usage.

Personality traits positively correlate with all the motivations to use social media. However, the strength of the relationship is different for each trait; conscientiousness happens to have a positive relationship with motivations to use social media, a moderate positive with pass time and information seeking, whereas a low positive with escape, companionship, and entertainment. Openness to experience depicts a moderate to low positive relationship with motivations to use social media. Agreeableness has a moderate positive relationship with pass time, entertainment, companionship, and escape, whereas it has a strong positive relationship with information seeking. Neuroticism on the other hand has a low to moderate positive relationship with motivations to use social media. There were gender differences reported for neuroticism trait, with females scoring lower on the scale as compared to the male respondents, which is not in line with the previous studies.

One implication arising from this study is the need for further exploration and ongoing measurement of the relationship between the big five model and motivations to use social media. This is particularly important as the observed relationship may vary across different cultures and evolve over time. The landscape of social media is continuously evolving, necessitating a deeper understanding of social media users to diminish digital divides and inequality. To foster digital inclusiveness, it is recommended to foster collaborative efforts among researchers, internet experts, and social psychologists.

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Declaration of interest: The authors declare no competing interest.

Data availability: Data generated or analyzed during this study are available from the authors on request.

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APPENDIX A: RELATIONSHIP OF BIG FIVE PERSONALITY TRAITS & MOTIVATIONS TO USE SOCIAL MEDIA

The current research endeavors to investigate the relationship of big five personality traits (agreeableness, extraversion, openness to experience, conscientiousness & neuroticism) and motivations (pass time, escape, companionship, information seeking, & entertainment) to use social media in university students.

Consent Form

Please read through the following statements and acknowledge your consent.

I voluntarily agree to participate and share my information in PhD level research investigating “relationship of big five personality traits and motivations to use social media.”

Yes: ____ No: ____

I understand that I can withdraw from my participation in the work at any time without giving any reason.

Yes: ____ No: ____

The researcher has assured me that the data will be kept confidential and anonymous.

Yes: ____ No: ____

Demographic Information Sheet

Gender: Male: ____ Female: ____ Other: ____

Age: 20 & below: ____ 21-35: ____ 35 & above: ____

City of residence: _____

Education: BA/BS (honors): ____ MA/MSc: ____ MPhil/MS: ____ PhD: ____

Marital status: Single: ____ Married: ____

Family system: Joint: ____ Nuclear: ____

Regional affiliation: Urban: ____ Rural: ____

Number of siblings: No siblings: ____ Up to 2: ____ More than 2: ____

Birth order: Only child: ____ First born: ____ Middle child: ____ Last child: ____

How much time do you spend on social media?

Less than 1 hour: ____ 1-2 hours: ____ 3-4 hours: ____ 5-6 hours: ____ More than 6 hours: ____

INSTRUCTIONS: Please check the box that best corresponds to your answer for each question below.

Thank you for your willingness to assist us with this research.

Please fill in the short statements by using the scale provided.

Where ‘1’ is ‘strongly disagree-SD’,

‘2’ is ‘disagree-D’

‘3’ is ‘moderate-M’

‘4’ is ‘agree-A’, and

‘5’ is ‘strongly agree-SA’

Big Five Personality Traits

Neuroticism scale

Table A1. Neuroticism scale

No	Items	SA	A	M	D	SD
1	I often feel blue.					
2	I dislike myself.					
3	I am often down in the dumps.					
4	I have frequent mood swings.					
5	I panic easily.					
6	I rarely get irritated.					
7	I seldom feel blue.					
8	I feel comfortable with myself.					
9	I am not easily bothered by things.					
10	I am very pleased with myself.					

Extraversion scale

Table A2. Extraversion scale

No	Items	SA	A	M	D	SD
1	I feel comfortable around people.					
2	I make friends easily.					
3	I am skilled in handling social situations.					
4	I am the life of the party.					
5	I know how to captivate people.					
6	I have little to say.					
7	I keep in the background.					
8	I would describe my experiences as somewhat dull.					
9	I do not like to draw attention to myself.					
10	I do not talk a lot.					

Openness to experience

Table A3. Openness to experience scale

No	Items	SA	A	M	D	SD
1	I believe in the importance of art.					
2	I have a vivid imagination.					
3	I tend to vote for liberal political candidates.					
4	I carry the conversation to a higher level.					
5	I enjoy hearing new ideas.					
6	I am not interested in abstract ideas.					
7	I do not like art.					
8	I avoid philosophical discussions.					
9	I do not enjoy going to art museums.					
10	I tend to vote for conservative political candidates.					

Agreeableness

Table A4. Agreeableness scale

No	Items	SA	A	M	D	SD
1	I have a good word for everyone.					
2	I believe that others have good intentions.					
3	I respect others.					
4	I accept people as they are.					
5	I make people feel at ease.					
6	I have a sharp tongue.					
7	I cut others to pieces.					
8	I suspect hidden motives in others.					
9	I get back at others.					
10	I insult people.					

Conscientiousness

Table A5. Conscientiousness

No	Items	SA	A	M	D	SD
1	I am always prepared.					
2	I pay attention to details.					
3	I get chores done right away.					
4	I carry out my plans.					
5	I make plans and stick to them.					
6	I waste my time.					
7	I find it difficult to get down to work.					
8	I do just enough work to get by.					
9	I don't see things through.					
10	I shirk my duties.					

Uses & Gratifications Scale

Pass time

Table A6. I use social media

No	Items	SA	A	M	D	SD
1	to waste time.					
2	to put off doing other things.					
3	out of habit.					
4	because there is nothing to do.					
5	it gives me something to do.					
6	because of boredom.					

Escape

Table A7. I use social media

No	Items	SA	A	M	D	SD
1	so, I can forget about studies/work or other things.					
2	so, I can get away from what I'm doing.					
3	so, I can get away from things that are bothering me.					

Companionship

Table A8. I use social media

No	Items	SA	A	M	D	SD
1	when I'm feeling lonely.					
2	when there is no one else to talk to or be with.					
3	because it makes me feel less alone.					

Entertainment

Table A9. I use social media

No	Items	SA	A	M	D	SD
1	because it entertains me.					
2	because I enjoy it.					
3	because it amuses me.					

Information seeking

Table A10. I use social media

No	Items	SA	A	M	D	SD
1	to receive information from companies or brands I like.					
2	to receive updates from organizations I'm interested in.					
3	to receive information from news organizations.					
4	to receive news about a well-known person or organization that I am interested in.					
5	to receive entertainment related news.					

