

Ph.D. Thesis

**PERSONALITY TRAITS AND SOCIAL MEDIA ADDICTION: AN
ANALYSIS OF USES AND GRATIFICATIONS PERSPECTIVE**



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**PERSONALITY TRAITS AND SOCIAL MEDIA ADDICTION: AN
ANALYSIS OF USES AND GRATIFICATIONS PERSPECTIVE**

by

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DECLARATION

I hereby certify that this material, which I now submit for assessment on the programme of study leading to the award of PhD entitled, “Personality Traits and Social Media Addiction: An Analysis of Uses and Gratifications Perspective” is entirely my own work, that I have exercised reasonable care to ensure that the work is original, and does not to the best of my knowledge breach any law of copyright, and has been taken from the work of others save and to the extent that such work has been cited and acknowledged within the text of my work.

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ABSTRACT

In the digital era, social media platforms have become integral components of modern society, revolutionizing the way individuals interact, share information, and seek entertainment. As the prevalence of social media continues to grow, concerns about excessive usage and addictive behaviors have risen, prompting researchers to investigate the factors underlying social media addiction. This thesis delves into the relationship between personality traits and social media addiction, with a specific focus on the theoretical framework of Uses and Gratifications. The primary objective of this study is to examine how Big Five Personality Traits influence individuals' engagement with social media platforms and their susceptibility to addiction. Drawing upon the principles of the Uses and Gratifications Theory (UGT) of media, this research also explored the moderating influence of use motives (extrinsic and intrinsic) on the relationship between personality traits and social media addiction. By considering the role of use motives, this study shed light on the nuanced dynamics of the relationship between the two variables. The study utilized a cross-sectional survey design and multistage cluster sampling technique was employed to gather data from a sample of 492 university students. Based on the research findings, it is recommended that educational institutions, families, and clinicians collaborate to develop policies aimed at safeguarding the younger generation from the detrimental impacts of excessive social media use. These policies should focus on creating secure online environments for this vulnerable user group and promoting responsible social media usage.

Keywords: Social Media, Social Networking Sites, Personality Traits, Social Media Addiction, Social Media Use Motives, Extrinsic and Intrinsic Motives

Chapter 1

INTRODUCTION

1.1 Background of the Study

The use of social media has grown exponentially all over the world during the last one decade (Kizgin et al., 2018). Social media has gained immense popularity as a social behavior due to its widespread availability and diverse range of opportunities it provides (Boulianne, 2017). As per the recent statistics, approximately 4.95 billion individuals used social media globally in 2023, and it is predicted that this figure will rise to almost six billion by 2027 (Statista, 2023).

As of January 2023, 56.3 percent Facebook's audience were male and 43.7 percent were female. Instagram was slightly more popular with men than women, with men accounting for 51.8 percent of the platform's global users. Additionally, the social media app was most popular amongst younger audiences, with almost 31 percent of users aged between 18 and 24 years. Micro-blogging platform X (formerly Twitter) was more popular with men than women, with male audiences accounting for 36 percent of global users. Additionally, users between the ages of 25 and 34 were particularly active on X/Twitter, making up more than 38 percent of users worldwide.

As of January 2023, 51 percent of Snapchat users identified as women and just over 48 percent were men. The mobile photo and messaging app had 332 million daily active users worldwide. As of October 2023, approximately 54.4 percent of YouTube users were male. By comparison, female users on the popular social video platform were approximately 45.6 percent of the total.

The number of social media users in Pakistan is also increasing exponentially on a global scale. There were 82.90 million internet users in Pakistan in January 2022. Pakistan's internet penetration rate stood at 36.5 percent of the total population at the start of 2022. There were 71.70 million social media users in Pakistan in January 2022. Facebook had 43.55 million users. YouTube grabbed 71.70 million users. Instagram had 13.75 million users TikTok had 18.26 million users while LinkedIn had 7.60 million members in Pakistan in early 2022. It is noteworthy that the largest proportion of social media users, accounting for 72%, belong to 18-34 age bracket (Datareportal.com, 2022).

The impact of social media is evident in the way it has revolutionized the modes of communication, information accessibility, and interaction amongst individuals. It has become an indispensable aspect of contemporary culture and holds significant relevance for business, industries, political systems, and the larger society (Kamruzzaman, 2022). Although the terms 'social media' and 'social networking sites' are often used interchangeably in scientific literature (Kuss & Griffith, 2012). Social networking sites are actually a subset of social media (Kumar, 2019).

Social networking sites refer to specific platforms that allow users to create public profiles and build online social networks within the confines of technology. Examples of social networking sites include Facebook, Instagram, Twitter, Snapchat, and YouTube, as identified by Boyd and Ellison (2007). While there are undoubtedly many advantages to using social media, excessive use of these platforms can have negative consequences. In fact, some scholars have characterized social media as addictive due to the way it can impact users' behavior (Kircaburun et al., 2020). According to Kuss and Griffiths (2017), addiction to social networking can be classified as a behavioral disorder characterized by the inability to control one's use of

these platforms. Researchers have identified various factors that can contribute to this addiction, including an individual's personality traits, their motivations for using social media, and socio-psychological factors, among others (Andreassen et al., 2013).

Studies have linked the use of social media to specific motivations for using it. For example, Ryan and Xenos (2011) conducted a survey analysis of 24 studies exploring the uses and gratifications of Facebook, as well as nine studies on Facebook addiction. The results indicated that the most common reasons for using Facebook were to maintain relationships, pass the time, find entertainment, and seek companionship. Furthermore, these motivations were found to be associated with addictive behaviors on Facebook that are habitual and excessive. Studies have shown that certain individual personality traits may be linked to addictive behaviors. In other words, certain personality characteristics have been found to play a role in the development of addiction (Hawi & Samaha, 2019; Özgüven & Mucan, 2013). The Big Five model of personality includes five important dimensions that serve as a framework for examining individual differences. These dimensions are extraversion, openness to experience, conscientiousness, neuroticism, and agreeableness (Costa & McCrae, 1992).

Recent research has found a correlation between problematic social media use and these certain personality traits (Blackwell et al., 2017; Dalvi-Esfahani et al., 2021; Wang et al., 2015). For example, extraversion and neuroticism are positively related to Facebook addiction (Ryan et al., 2014), while the trait of conscientiousness is negatively connected to Facebook addiction (Marengo et al., 2020). The theoretical framework of this study is based on the Uses and Gratifications Theory (Katz et al., 1973), which explains the motivations for using social media and the resulting

gratifications. The theory suggests that these gratifications vary depending on an individual's personality characteristics.

The sample population for this research consisted of university students because they are often regarded as the most tech-savvy demographic group and early adopters of the latest technologies. Previous studies have shown that young people, especially students, may be more susceptible to addictive symptoms as they spend a significant amount of time engaging in social media activities on a daily basis (Dhir & Tsai, 2017; Sirola et al., 2019; Throuvala et al., 2019). According to Koc and Gulyagci (2013), research on the association between personality and addictive behavior on social networking sites is still in its early stages, and requires further evidence to fully understand the addictive usage of social media and its correlates. In the context of Pakistan specifically, we scarcely find any empirical study in literature (Mahmood et al., 2020).

This study, therefore attempted to bridge the gap in prior literature by examining the impact of personality factors on social media addiction, and exploring the moderating role of social media use motives, derived from the literature of Uses and Gratifications theory (Katz et al., 1973; Palmgreen et al., 1980; Whiting & Williams, 2013). This study aimed to contribute to the social media literature by providing empirical evidence of excessive social media usage within the university sector and further enhancing our understanding of it.

1.2 Social Media

The usage of information technology for communication is constantly on the rise in the twenty first century, especial thanks to developments in internet technology. Internet usage has enhanced dramatically due to ongoing developments in

digital media technologies. As a result of these developments in internet technologies, the use of internet based platforms and applications has significantly increased. Social media is one of these platforms and sub type of internet application (Kaplan, 2015).

Social media encompasses a range of internet-based platforms designed to facilitate social interaction and the exchange of user-generated content. These platforms enable users to share information, engage in discussions, and connect with others through various digital communication channels, including text, images, audio, and video in the form of user generated content. It is rooted in the concepts and technology of Web 2.0. The various forms of social media, including wikis micro-blogging, chat apps, social gaming and social networking have become ubiquitous in today's digital landscape (Carr & Hayes, 2015). Significant features of social media included the creation of profiles, uploading of content, chatting, and creating pages. These features allowed users to directly publish a range of content, including text, images, pictures, audio, and videos.

By providing opportunities for engagement and participation, social media has lowered the conventional gap between media and audience and elevated users from passive recipients to active creators (Stone & Wang, 2018). Via posts, comments, reviews, and feedback, social media provides a global connection that is accessible for social engagement, contribution, and participation. This distinguishes it from traditional media by permitting real-time, two way communication between numerous participants without interference from outside sources (Dhir et al., 2018). Social media has drastically changed how people access information and interact with the outside world. Becoming an integral part of daily life, young adults find it to be quite appealing due to its user-friendly interface, inexpensive cost, low technological needs, and capacity for overcoming time and location restriction (Osatuyi, 2013). Social

media isn't just one kind of technology, nor is it just one platform or application. Instead, social media is a phenomena of communication that uses a variety of technological platforms and applications. According to (Zhang & Lin, 2015), it is a communication channel that enables interactive and bidirectional communication, with the capability for feedback.

1.3 Social Networking Sites

Social networking sites are sub type of social media. Social media has been defined as “a group of internet-based applications that build on the ideological and technological foundations of Web 2.0 and that allow the creation and exchange of user-generated content” (Kaplan & Haenlein, 2010, p. 61). Kuss and Griffith (2011) also defined social networking sites as online groups where members are permitted to create public profiles, contact with real friends, and engage in interactions with others based on shared interests (Kuss and Griffiths, 2011). Social networks are widely used to share information and interact with friends, family, colleagues, customers or clients and communities (Horzum, 2016).

Another prominent characteristic of social networking site is that its Web 2.0's interactive features let users produce their own content and share it with their online community. A huge number of people have moved all or most of their offline social contacts online. The mechanics of how and, perhaps more significantly, why individuals communicate have altered as a result of the use of these sites as a medium for communication. It is worth noting that in academic literature, the terms social media and social networking are frequently utilized interchangeably, as mentioned by Griffith (2013). In this study, social networking platforms including Facebook, Instagram, Twitter, Snap chat, and YouTube have been taken as social media.

1.4 Social Media and Young Generation

When compared to earlier age groups, emerging adults (18-29 years old) had a higher share of this extensive use. In fact, 88 percent of people in this age range utilize social media (Anderson, 2018). When compared to earlier age groups, emerging young adults in particular, may easily and quickly access real-time activities including events, visual sharing, and conversing through social media. The younger generation updates their contacts and status on social media on regular basis (Fox & Moreland, 2015).

In comparison to most traditional media around the world, social media has been recognized as one of the most significant interactive platforms for the younger generation. Most university students turn to social media as a way to socialize and share personal experiences, emotions, and updates with their network. They view social media as a crucial platform for fostering and preserving relationships, expressing creativity and acquiring knowledge about the world around them (Isah & Ogundele, 2020). Social media enables them to engage with individuals from various backgrounds, including those from different political, religious, cultural, ethnic and racial groups. It also provides them with access and the ability to share information about political events, economic, social happenings and developments, making them feel connected to the global community and more informed about the world around them (Osatuyi, 2013).

Appropriate usage of social media results in positive and helpful psychological benefits, such as greater community support, improved friendship quality, and decreased depression levels (Tifferet, 2020). Despite the increased negative consequences on health, there are several advantages to using social media. People

can use social media to strengthen their social relationships and communication skills. On social media, young people can also meet new acquaintances with whom they can exchange ideas, discover new interests, and experiment with various forms of self-expression (Rice et al., 2016).

The usage of social media by young individuals presents an opportunity to acquire new knowledge and skills that are crucial for performing daily tasks in society. Therefore, restricting youth's access to social media platforms may deprive them of worthwhile educational opportunities and limit their social lives (Kitsantas et al., 2016). Social media is acknowledged for both its benefits and certain drawbacks, some of which have an adverse effect on people's physical and mental wellbeing. Even though using social media has numerous advantages, engaging in it too much can have negative effects.

According to research done in several nations, a sizeable portion of students (21%) said that they frequently get irritated if they must refrain from using social networks, and a somewhat higher percentage (27%) firmly concurred that they were addicted to social networking sites (Andreassen et al., 2015). About 13% of university students in Norway and 9% of college students in Germany are addicted to Facebook (Andreassen et al., 2013). According to Alzougool (2018), 38% of Jordanian university students, 41.8% of Thai high school students, and 47% of Malaysian students are addicted to Facebook (Jafarkarimi et al., 2016). Shettar et al. (2017) revealed that 33% of Indian students and 39% of Bangladeshi students are at risk for developing a Facebook addiction.

1.5 Excessive or Problematic Use of Social Media

While the negative implications of excessive and problematic social media use have been well-documented, moderate usage of social media does not appear to have an adverse impact on one's daily functioning or psychological well-being (Twigg et al., 2020). However, excessive and problematic use has been associated with negative effects and can create various obsessions that can make social media usage challenging. Due to the increasing popularity and dependence on the virtual platforms of social media, more individuals are suffering from harmful consequences due to isolation from real life and poor connections with others (Eliphinston & Noller, 2011).

Studies have indicated that problematic social media use (PSMU) can result in unfavorable outcomes for psychological well-being and overall health (Brailovskaia et al., 2020; Pontes, 2017). One of the most noteworthy negative consequences linked with social media usage is 'dysregulated use', as identified by Kuss and Griffiths (2017) and Radovic et al. (2017). These issues are frequently attributed to the design and use of social media platforms, as well as the nature of activities and engagements they offer, as highlighted by Montag et al. (2019).

Scientific research has increasingly shown that using social networking sites frequently can result in symptoms resembling substance addiction. Such research suggests that over use of social media may lead to addiction-like behaviors. Although the negative effects of misusing technological advancements can impact individuals of all ages, young people are particularly vulnerable to these risks. Studies by researchers such as Grant et al. (2010) and Griffith et al. (2014), Andreassen (2015) have established a connection between excessive use of social media and addiction in

young adults, indicating that young people are especially susceptible to the detrimental effects of technology misuse.

1.6 Most Vulnerable Segment of the Society

University students are highlighted in particular as one of the key groups under technological misuse (Pawłowska et al., 2016). Throughout the various stages of youth, young people are at a greater risk of experiencing the negative consequences of social media usage. Young adults are at a higher risk of having Psychiatric disorders because they are more susceptible to peer pressure and find it difficult to stay away from such effects. Moreover, a decline in community involvement, a decrease in academic achievement, and an increase in interpersonal issues has also been observed among young students (Kuss & Griffiths, 2011). Moreover, studies have suggested that this age group is more vulnerable to the addictive effects of social media use, as evidenced by research conducted by Andreassen et al. (2017).

Considering the potential adverse impact of social media addiction, it is crucial to investigate how young adults utilize these platforms. Experts in the field are increasingly voicing apprehension regarding the addictive nature of social media, especially among this demographic. Prevalence rates for problematic social media use have been reported to range from 2% to 47% of all users, as indicated by studies conducted by Jafarkarimi et al. (2016), and Meshi et al. (2019). Although the prevalence rates vary widely, many individuals experience chronic addiction-like symptoms and become problematic users, which exposes them to the detrimental effects of social media addiction, as reported by Kuss and Griffiths (2017), Satici (2018), and Hawi and Samaha (2017).

Pakistani youth are also increasingly drawn into the allure of platforms like Facebook, Instagram, Snapchat, YouTube and TikTok. However, as far as studies on social media addiction in Pakistan is concerned, limited work has been conducted to identify addiction among social media users. Ahmer and Tanzil (2018) surveyed on the impact of SNS use on medical students' academic performance. A cross sectional research of 412 Agha Khan University medical students revealed that 74% of them had just minor addictions, 24% had moderate addictions, and 2% had severe addictions.

Saleem et al. (2015) analyzed how common internet addiction was among college students and how it related to loneliness. 1020 undergraduate students were chosen as a sample. Out of 1020 pupils, the results showed that 286 students (28% of the sample) have internet addiction. The conclusion that excessive internet use leads to internet addiction was supported. Islam et al. (2017) conducted a cross sectional survey on the sample of 350 business students on excessive internet use. The findings indicated that factors such as entertainment, social connection, seeking information, and financial considerations contribute significantly to excessive internet use, which in turn negatively impacts the academic performance of students.

1.7 Social Media Addiction

Ahin and Yac (2017) have suggested that spending an excessive amount of time on social media can result in a variety of issues, including psychological, physical, and social problems that can hinder an individual's ability to fulfill personal, social, academic, and professional responsibilities. This phenomenon can affect individuals of all ages, and addiction to social media is a multifaceted issue that affects various aspects of a person's life. The underlying reasons for social media

addiction are similar to those of other types of addiction, Individuals who are addicted to social media may exhibit symptoms comparable to those observed in individuals with substance or behavioral addictions (Kuss & Griffiths, 2012).

There are numerous definitions of addiction in the literature. Armstrong & Pickard (2013) state that addiction is a persistent, harmful yearning that results from a person's inability to exert control over their environment or conduct. Another is Goodmans (1990), who defined addiction as the inability to cease a behavior despite its unfavorable effects because of the pleasurable feelings it produces. These descriptions allow us to conclude that addiction is a deficiency in controlling compulsive behavior that results in unintentional demonstration of it due to the pleasure experienced.

Various researchers have categorized social media addiction as a type of behavioral addiction. Studies conducted by Young (2009), Kuss and Griffiths (2011), Montag et al. (2014), Andreassen et al. (2016), and Müller et al. (2016) have indicated that social media addiction can be classified as a subtype of internet addiction, which falls under the category of behavioral addiction. Their research, along with their theoretical frameworks, provides evidence to support this classification.

Andreassen and Pallesen (2014) study highlights the relationship between addiction and the effects of consumption. They argue that social media addiction arises from a strong desire to use social media despite the negative impact it has on other aspects of an individual's life such as daily activities, relationships, and work or school performance. These researchers have defined social media addiction as an uncontrollable urge to use social networking sites for extended periods that result in adverse real-life consequences.

Griffiths (2005) component model of behavioral addiction was found to encompass all the symptoms of addiction described by Andreassen et al. (2014) in their definition. He stated that this model depicted all types of behavioral addictions. Following are signs of SNS addiction according to the behavioral model of Griffiths (2005).

- i. Salience (SNS use dominates thought and behavior).
- ii. Withdrawal symptoms (uncomfortable and uneasy feelings when SNS use is abruptly stopped or reduced).
- iii. Mood modification (SNS use alter users mood or improve it).
- iv. Tolerance (the individual's tolerance for social networking sites has increased, requiring them to spend more time on these platforms to achieve the same level of satisfaction they previously experienced).
- v. Relapse (inclination to return to previous usage patterns and habits of social networking sites after failing to effectively abstain or control use), and
- vi. Conflicts (the heavy use of social media can create conflicts, leading to disruptions in daily activities and strained relationships with others and job/education performance).

Despite the growing number of studies on the use and abuse of social media platforms, social media addiction has not been officially recognized as a mental health disorder. However, the fifth edition of the Diagnostic and Statistical Manual of Mental Disorders (DSM), published by the American Psychiatric Association in 2013, provisionally includes Internet Gaming Disorder (IGD) as a behavioral disorder associated with internet use. A growing number of mental health experts contend that behaviors associated with excessive internet including social media addiction and problematic smartphone usage should also be treated as mental health conditions

(Csibi et al., 2018; Monacis et al., 2017). Researchers investigating social media addiction currently use the same criteria as for Internet Gaming Disorder (IGD) in their analyses of this phenomenon.

1.8 The Use of Term ‘Social Media Addiction’

Terms like ‘social media addiction’, ‘problematic social media use’, ‘excessive social media use’, ‘social media intrusion’, and ‘social media addiction’ are often used interchangeably to describe a potentially addictive behavior related to social media use. In this particular study, the term ‘social media addiction’ is adopted, given its prevalence in international peer-reviewed literature (Pellegrino et al., 2022; Sun & Zhang, 2021). Scholars have put forth various theories to explain why certain individuals may have an issue with the use of certain internet applications. The theory of Uses and Gratifications is an appropriate framework for answering this inquiry and investigating the usage and potential addiction to internet applications.

1.9 Uses and Gratifications Theory

Uses and Gratifications theory focuses on how individual differences in media preferences influence the effects of media usage (Katz et al., 1974; Rubin, 2002). According to theory, people’s choices in using internet applications can have various effects and fulfill different needs. This is particularly relevant in the context of social media, where the Uses and Gratifications Theory has been useful in helping us understand why and how people use these platforms, with a focus on identifying their motivations (Sundar & Limperos, 2013).

The U&G theory suggests that individuals seek out specific media in order to satisfy their particular needs and desires, with a particular emphasis on gratifications that are associated with their social and psychological needs. This means that people

use social media for various reasons, such as to connect with others, to express themselves, to seek information, or to entertain themselves. By understanding the motivations behind people's social media use, we can gain insights into how these platforms impact our lives and how we can make the most of them.

The Uses and Gratifications theory provides a functional perspective on media usage, which emphasizes the active role of individuals in selecting and using media to satisfy specific needs and gratifications. By applying this theory to social media, researchers can gain a better understanding of why people use these platforms and what they hope to achieve through their usage. This can be useful for developing strategies to promote healthy social media usage and prevent addiction. Uses and Gratifications theory posits that individuals proactively select which media they consume to fulfill their specific needs, personal psychological and sociological attributes play a crucial role in shaping these choices, and various media outlets compete with other sources to satisfy individuals' needs can have a more significant impact on them than other sources. The drive to fulfill these needs is what drives media consumption (Robin, 2002).

These media consumption habits may have various effects. U&G theory, which has its roots in mass media, offers a user centered approach to explain that a user's decision to utilize a certain medium depends on the gratifications received, or more specifically, how well his requirements are met (Stafford & Gillenson, 2004). According to Weibull's (1985) research, people frequently return to a medium they perceive to have met their needs. This finding suggests that frequent media use produces ongoing satisfaction. This persistent sensation eventually develops into addiction as a result of psychological reinforcement (Hanson et al., 2008).

In other words, individuals get dependent on something because of the psychological benefits and fulfilment it offers. According to the U&G approach, it makes sense to predict that pleasure acts as a moderator between use and addiction tendency if technology addiction tendency is seen as a negative psychological reliance brought on by technology use. As a result, individuals who report feeling satisfied are more likely to develop an addiction. The U&G is a well-known theory for understanding how individual characteristics affect social media use and addiction. Across a range of media contexts, such as social media, online gaming, smartphone use, and the internet, it has been used to explore the traits that indicate addiction (Kim & Haridakis, 2009; Kuss & Griffiths, 2012).

Previous studies have shown a relationship between personality traits, motivations for using social media, and the addictive effects of such use (Andreassen, 2015). The application of the Uses and Gratifications approach has advanced our comprehension of how and for what reasons people use social media, specifically in terms of exploring the motivations for its usage (Sundar & Limperos, 2013).

1.10 Personality Traits

To fully understand how individual characteristics, personality traits, and motivations connect to usage outcomes like social media addiction, additional research is nonetheless required. The aim of this study was to apply Uses and Gratifications framework to investigate how social media use, distinct personality traits, and motivations influence addiction outcomes. Despite existing research, a more comprehensive understanding of this connection is needed and the objective of this study was to gain additional understanding in this regard. The connection between personality traits and behavior is a widely acknowledged phenomenon,

resulting in a rising interest in investigating the correlation between personality, social media use, and addiction, as popular research topic. Kircaburun and Griffiths (2018) suggested that individual differences in personality can have a significant impact on the development and maintenance of problematic behavior towards various online platforms.

Similarly, Chen and Roberts (2019) have found that personality traits can influence the specific motives behind social networking site usage, potentially leading to addiction. Therefore, personality is an important factor to consider when examining social media usage. Personality is a term used to describe a person's enduring traits that shape their thoughts, action and emotions. These characteristics are considered to remain consistent over time and in various situations. One of the most widely used approach for assessing personality is the Big Five Factor Model (Costa & McCrae, 1992; Digman, 1990; Goldberg, 1990). This model categorizes an individual's personality traits and has gained widespread acceptance and support from empirical research.

1.11 Five Factor Model

Five Factor Model (FFM) is often used as a standard for organizing and measuring personality. The FFM includes five broad dimensions that are believed to be relatively stable across different situations and time periods. These dimensions are often used as Big Five personality traits. Using a broad framework, it aims to explain characteristics connected to personality structures. There're five dimensions that make up the model are:

- i. extraversion (sociability, assertiveness, friendliness, talkative, enthusiasm, optimism, and excitement and energy),

- ii. agreeableness (cooperation, altruism, caring, personal warmth, and concern for the feelings and needs of others),
- iii. conscientiousness (responsible, self-disciplined, dependable, stable, successful, ethical, planning well, organized, diligent working hard and on time),
- iv. neuroticism (being anxious, tense, worried, insecure, guilty, and emotionally unstable),
- v. openness to experience (openness to non-traditional things and ideas, quest for novelty, intelligence, resourcefulness, intellectual curiosity, and broad cultural interest) (Costa & McCrae, 1992).

The Big Five factors are increasingly recognized as reliable and valid representations of individual dispositions in a personality trait hierarchy (Costa & McCrae, 1992; Digman, 1990; Goldberg, 1990; James & Mazerolle, 2002). As a result, many studies have been conducted to investigate how these factors affect individual behavior and performance. In this study, the researcher suggested evaluating participants' personalities based on the five broad dimensions and assessing each facet separately.

1.12 Personality Traits and Social Media Usage

Several studies have established a correlation between personality traits and the usage of social media (Krcaburun & Griffiths, 2018; Ong et al., 2017). Research indicated that personality characteristics play a crucial role in forecasting technology utilization, technology acceptance, and social media involvement (Rauniar et al., 2014). The likelihood of social media addiction can be influenced by an individual's personality. Those with higher levels of neuroticism and low self-esteem may be at

greater risk for addiction due to their tendency to use social media as a means of coping with negative emotions or seeking validation from others (Jeong & Kim, 2016). Conversely, individuals who exhibit high levels of conscientiousness and self-esteem may be less susceptible to addiction and may use social media in a more balanced and controlled manner that does not interfere with their daily lives (Andreassen et al., 2012; Blackwell, 2017).

1.13 Uses and Gratifications and Use Motives

Rising from the traditional mass media communication studies context, Uses and Gratifications has been adopted to comprehend user motives and explain why users participate in particular types of media. The theory of Uses and Gratifications posited that media users tend to select certain stimuli to meet particular desires and needs. This perspective provides insight into the reasons why people engage with media, and sheds light on the processes of media selection. The U&G approach has been widely used to examine the types of satisfaction individuals seek through their use of various media. Ruggiero (2000) has particularly highlighted its importance for studying social media. With the rise of new technologies and a greater number of media choices, the U&G perspective becomes increasingly relevant in understanding why people use specific media, such as social networking sites (SNSs). Many researchers have adopted the U&G paradigm to investigate the motives behind SNS use and determine the types of gratification they provide (Quan-Haase & Young, 2014). Researchers have defined motives as the underlying reasons why an individual engages in a behavior, reflecting the particular desire and needs he/she seek to gratify. (Cox & Klinger, 2004; Rubin, 2002; Sundar & Limperos, 2013).

1.14 Social Media Use Motives

Motivation is the internal process that gives behaviour its energy and direction, and it is the force that originates, guides, and maintains goal oriented behaviours (Simpson & Balsam, 2015). Most research on the connection between motives and social media addiction has been based on the Uses and Gratifications Theory, which suggests that motives drive the choice of different media types. According to Elliott and Rosenberg (1987), UGT can be used to explain why consumers choose to adopt a new communication medium or stick with an existing one. The U&G theory is flexible in accommodating the changing communication technology (Dilaver, 2013). Motivation is the driving force behind behavior, which starts, guides and maintains actions towards a goal. One of the key motives that have been identified is the combination of intrinsic and extrinsic motives for using social media. These two types of motivations have been identified by researchers in literature (Lepper, 1988; Ryan & Deci, 2000).

1.15 Intrinsic and Extrinsic Motives

Intrinsic motivation is centered on obtaining inner satisfaction and pleasure, rather than a concrete reward (Ryan & Deci, 2000). Those who are motivated by intrinsic factors undertake tasks because they find them interesting and derive a sense of fulfillment from completing those (Gagne & Deci, 2005). It pertains to an individual's inner self, for example, enjoying entertainment that brings them happiness from within. On the other hand, extrinsic motivation refers to an individual's inclination to participate in activities in order to obtain an external reward or outcome, such as a tangible or verbal reward (Ryan & Deci, 2000). It alludes to something external to the immediate context. For instance, self-presentation occurs

when a person worries about what other people think of them and how they come across as a person. To others, he displays himself as having likeable traits. In return, they will laud him (verbal reward). Previous studies have employed both intrinsic and extrinsic motivation types to explain people's behavior (Lin & Lu, 2011; Teo et al., 1999).

This study investigated the role of intrinsic and extrinsic motivation as moderators that can influence the ways in which motives impact the psychological and social aspects of media use. Achakul and Yolles (2013) noted that intrinsic and extrinsic motivation can create a setting where individuals can align their behaviors with their personal tendencies in relation to their Big Five personality traits. Depending on an individual's Big Five personality traits, intrinsic and extrinsic motivation can offer an environment where people can act according to their own specific preferences (Komarraju et al., 2009).

1.16 Motives for Social Media Use

Numerous studies have previously identified various motivations for using social networking sites (SNS's), such as seeking entertainment (Kim & Haridakis, 2009; Papacharissi & Mendelsohn, 2011), obtaining information (Chen & Kim, 2013; Leung, 2010), self-presentation (Schlosser, 2020), seeking escapism (Chen & Kim, 2013; Kim & Haridakis, 2009; Papacharissi & Mendelsohn, 2011), socializing (Joinson, 2008), and meeting new people (Papacharissi & Mendelsohn, 2011). These motives are commonly cited as explanations for why individuals engage with social networking sites.

The research investigated the relationship between Big Five personality traits and social media addiction by evaluating an individual's motivation for using social

media and how this motivation affected the relationship between the predictors and outcomes. In general, the motives for using social media were comparable to those for traditional media, such as seeking escape, entertainment, relieving boredom etc. (Quinn, 2016). Furthermore, practical motives such as education (Quinn, 2016) socializing, self-expression, sharing information (Chen & Kim, 2013) and education were also common.

One objective of this research was to improve the current understanding of social media addiction by examining the fundamental components that lead to addiction across various social networking platforms, rather than focusing on a particular platform. The research focused on specific social networking platforms such as Facebook, Instagram, Snapchat, Twitter, YouTube, and others, which were categorized as subcategories within the broader context of social media (Kuss & Griffith, 2012).

This study sought to employ the Uses and Gratifications (U&G) approach to examine the influence of personality traits, motives, and patterns of social media usage on addiction outcomes. Specifically, the aim was to investigate the relationship between the Big Five Personality traits and social media addiction using the U&G approach. Additionally, the study examined how intrinsic and extrinsic motives of social media usage moderated the association between the Big Five Personality traits and social media addiction in this specific context.

1.17 Exploratory Study

It is important to explain here that it is an exploratory study. By linking personality traits with social media addiction, researchers attempted to investigate the potential connections between individual personality characteristics and the likelihood

of developing an addiction to social media. The study involve examining various personality traits, such as extroversion or neuroticism and exploring how these traits may be associated with patterns of social media use and addiction. An exploratory approach allows researchers to gather preliminary insights, identify relevant variables, and potentially generate hypotheses for further investigation.

1.18 Problem Statement

Social media, including social networking sites, have become an integral part of the lives of the younger generation worldwide, including Pakistan. This heavy involvement in social media could potentially make young people more susceptible to social media addiction. Research on social media usage indicates that it may be influenced by factors such as personal motives, preferences, and personality traits (Chen, 2019). Several studies have shown that the Big Five personality traits, agreeableness, conscientiousness, extraversion, neuroticism, and openness to experience are significantly associated with social media addiction (Ryan, 2014; Tang et al., 2016; Vaghefi & Qahri-Saremi, 2018).

Notwithstanding these findings, little is known about the role that personality factors play in the emergence of social media addiction. To deepen our comprehension of the connection between personality and social media addiction, it is also crucial to examine individuals' motives for using social media. It is plausible that personality traits may be associated with social media addiction due to the impact of particular motivational mechanisms. For instance, individuals who are highly agreeable may be driven to fulfill their friends' expectations by frequently engaging with them on social media, which could potentially result in addiction to social media.

Several scholars have adopted the Uses and Gratifications approach to comprehend the reasons behind people's use of social media, the motivations that drive them to use it, and the types of gratification they derive from it (Chen & Kim, 2013). Previous studies have highlighted several fundamental dimensions of motives for using social media, which have been identified as significant predictors of social media addiction. Among the identified motives, extrinsic and intrinsic motives have emerged as the most prominent factors. In this study construct like entertainment, pass time and escapism have been taken as intrinsic motives and construct like social interaction, information sharing and self-presentation have been taken as extrinsic motives from Uses and Gratifications literature.

The purpose of this study was to investigate the relationship between Big Five Personality Traits and social media addiction as well as the moderating impact of extrinsic and intrinsic motives of social media use on this relationship. The study also aimed at exploring the prevalence of social media addiction among young generation and also focused on knowing which gender is more influenced by prevailing social media addiction. The independent variable in this study was personality traits, the dependent variable was social media addiction and extrinsic and intrinsic motives of social media use served as moderating variable.

The rationale for selecting the Big Five Personality Traits (McCrae & John, 1992) in this research is two-fold. Firstly, it is the most contemporary model for describing individual personality characteristics. Secondly, past research has established that the Big Five personality traits are reliable predictors of social media addiction (Kircaburun et al., 2020; Seidman, 2013). By examining use motives as a moderating variable, this study analyzed how these variable could influence the nature of the relationship between the independent and dependent variables as a moderating

variable has the potential to strengthen, weaken, or negate the association between these variables, which highlights its significance in this research.

1.19 Objectives of the Study

The objectives of this study are as follows:

- To evaluate the difference of prevalence of social media addiction in male and female university students in Pakistan.
- To examine the association between the Big Five Personality Traits and social media addiction.
- To explore the potential moderating impact of social media use motives (extrinsic and intrinsic) on the relationship between the Big Five Personality Traits and social media addiction.
- To assess the degree or level of social media addiction among male and female university students of Pakistan.

1.20 Significance of the Study

There are multiple reasons why this research is important. Firstly, internet addiction, including social media addiction, has become an increasingly concerning issue. This is largely due to the widespread availability of social media platforms and easy access to the internet. Secondly, previous research has demonstrated that college and university students are particularly susceptible to social media addiction due to their high level of internet usage. Thirdly, social media addiction has been found to have a range of negative consequences including emotional disturbances, relationship problems, health issues, and decreased performance. As a result, gaining a

comprehensive understanding of the causes, effects, and ways to treat social media addiction is of utmost importance.

The goal of the present research is to make contributions to both theoretical and practical domains. From a theoretical perspective, this study employed the Uses and Gratifications approach to broaden the scope of media research. Additionally, this work aligned with the media effects traditions by investigating the potential impact of online media use on individuals in terms of fulfilling their social and psychological needs, as well as the potential harmful and negative consequences that may arise due to excessive media consumption. The Uses and Gratifications have been dominant communication theory that analyzed for decades what people do with media and how they utilize it for their social and psychological need. The theory of U&G seemed outdated to many scholars. However, the development of social media has injected a new life blood in this ageing theory.

The functions of U&G Theory have been renewed and revitalized due to social media platforms activities by its users. The nature of social media has made it possible to use this platform in a variety of ways that traditional media never could. Applying the U&G Theory to social media is crucial because, unlike conventional media, new media offers users a plethora of options that include active user engagements, interactivity and the technology of Web 2.0 that facilitate the sharing of user-generated content. Thus, the present study aimed to investigate the U&G Theory's present applications in the context of audience social media engagements and problematic social media use.

In practice, this study is important for a variety of reasons. First, there is a growing issue with internet addiction and its variants, such as social media addiction.

The likelihood of social media addiction is increased many folds due to the vulnerability of social media platforms and easy and comparatively cheap accessibility of the internet.

Second, as earlier studies revealed that, college and university students are more vulnerable to become victim of social media addiction due to their extensive exposure to it. Third, it has come under the observation that social media addiction is associated with a number of interpersonal, emotional, health, and performance issues (Kuss & Griffiths, 2011). Therefore, it is important to research the causes, effects, and treatments of this problem. By investigating the potential impact of social media usage on individuals and the detrimental effects of its excessive use, this study serves as a cautionary message to mental health professionals and educators in Pakistan. It highlights the prevalence of social media addiction among the younger generation, mirroring global trends.

This study emphasizes the importance of addressing this issue effectively and implementing appropriate interventions. In addition to the person's actual surroundings, the Web 2.0 environment is also a contributing factor to health problems. The excessive internet usage and long hours spending on online activities by young people is also a challenging issue. Social media engagements play a significant role in the daily lives of young adults and to investigate about its possible health consequences have a great clinical importance. So it is imperative for clinicians to identify any potential health consequences regarding excessive social media usage.

Counselors are expected to be better able to support their clients by understanding the connections between numerous aspects, such as personality and psychological factors, he/she will be better equipped to assist the client by

comprehending that how social media can be related to their clients health issues and mental difficulties. For instance, a clinician may be aware that a patient has social anxiety, but if the clinician does not analyze the patient's use of social media, the clinician may not completely understand patient's social anxiety causes and symptoms. He/she will be in a better position to give treatments by examining the patients' social media usage patterns that would enable him to assess whether the current mental health problem is a result of social media addiction. If a clinician does not evaluate social media usage habits of a patient, he/she may not obtain a complete understanding of the patient's mental health problems and social anxiety symptoms, as social media usage can play a role in the manifestation of these symptoms.

Educators are likewise interested to know how social media impacts students' lives. The findings of the current study will help educators better understand the level of social media addiction among university students of Pakistan. Educators can also use symptoms as the first warning signals in order to identify social media addiction at an initial level and provide the necessary counselling and prevention at an early stage of the problem. The current study also provides essential information for two important groups. First academically, the study added to the growing body of research on active audience engagements on social media and second commercially, it is valuable for the advertising industry which follows closely the behavior of the users on the internet in order to increase traffic on various social media platform and particular websites accordingly with the aim to grab maximum views.

Chapter 2

LITERATURE REVIEW

The phenomenon of social media addiction has garnered significant attention in recent years, as individuals increasingly find themselves consumed by online platforms and virtual interactions. Understanding the underlying factors that contribute to social media addiction has become a critical area of research. In this literature review, we have tried to explore the various factors that influence this complex phenomenon.

2.1 Social Media

Social media has been increasingly popular in the twenty-first century, especially among young people. The growing trend of young people's engagement with social networking sites (SNS) has sparked increased research efforts aimed at understanding their behaviors, usage patterns, and the resulting consequences. Researchers have directed their attention towards exploring how young individuals interact with SNS, examining their frequency and duration of use, as well as the activities they engage in while on these platforms. This surge in research aims to shed light on the effects of social media use on young people (Trifiro & Gerson, 2019). The advent of social media has altered every aspect of human existence which makes it easier to share knowledge and information and buildup connections across social, demographic, and geographic divisions (Carr & Hayes, 2015).

Social media is undoubtedly the fastest and most economical way to communicate with any targeted audience because it offers such a great platform for a variety of public participation. Social media is extensively employed for diverse types

of connection and communication, ranging from personal to academic, professional to healthcare and wellness-related communications (Campbell & Craig, 2014). Social media is significant for more than just maintaining an online presence; it also offers a practical platform for marketing and establishing ties and relationships (Bruhn et al., 2012). Social media platforms are widely used by people and businesses to communicate with their clients, customers, friends, and followers. Despite the fact that there are now 4.59 billion users on social media, data available suggests that usage is growing steadily, and the majority of users operate accounts on multiple platforms (Statista, 2022).

There are various definitions of social media found in literature. According to Kaplan and Haenli (2010), social media is an internet based technology application that is based on the conceptual and technical underpinnings of Web 2.0 that allows for the creation and exchange of User Generated Content. Korda and Itani (2011) defined social media as interactive communication tools and channels that are available online. It is true that there are literally hundreds of different social media platforms including social networking sites, podcasts, text messaging, shared photographs, blogs, and streaming video services. Social media is not one particular platform or kind of technology. Instead, it is a phenomenon of connectivity and communication that spans many platforms and applications.

2.2 Difference Between Social Media and Social Networking Sites

Social media is a broad term that encompasses various forms of communication, such as text messages, vlogs, blogs, websites, emails, discussion forums, chat forums, podcasts, live streaming, and all social networking platforms. In this context, social networking sites can be considered a subset of social media. The

main characteristic of social media is its interactivity and participatory nature, which is facilitated by web 2.0 technology. However, in academic writing and literature, social media and social networking sites are frequently used interchangeably (Kuss & Griffith, 2012).

According to Boyd and Ellison (2007) social networking sites are: Web based services and applications that permit individuals to build up a semipublic or public profile under a bounded system, articulate a list of other members with whom they connect and share, and to view and traverse their list of links and connections as well as those buildup by other members inside the bounded system. Andreassen et al. (2017) defined social networking as specialized online platforms that enable users to communicate with one another by exchanging personal information in various formats, such as text, images, and multimedia.

Social networking sites (SNS) are online communities where people can join and communicate with each other based on shared interests, ideologies, backgrounds or other offline relations in an online setting (Gerhart, 2017). Weiss and Schneider (2014) contended that social networking sites is a sophisticated social system that has been shaped by technology to affect interactions and interpersonal communication. Technology and social contact are combined in social networking platforms, creating dynamic online content that is both produced and consumed by the same people. We create it, exchange it, read it, and examine it.

It is frequently referred to in professional media as CGM, or consumer generated media. Users can virtually interact with anyone, anytime, anywhere, and check their profiles and share their content (Weiss & Schneider, 2014). Online platforms for interactive and social interactions emerged as a result of the introduction

of web 2.0. These new technologies were used and tapped into in social media for a system of multiway communication and audience generated content sharing (Kaplan & Haenlein, 2010).

Social media platforms allow users to actively engage, contribute, and collaborate. Users can create and share their own content, comment on others' posts, participate in discussions, and form online communities around shared interests. Social media has democratized the flow of information, enabling individuals to become content creators and publishers (Fuchs, 2014). It has empowered people to voice their opinions, share their experiences, and engage in conversations on a wide range of topics. This has led to increased connectivity, diversity of perspectives, and the ability to mobilize communities for various social causes (Chuang, 2009).

There are basically two types of social networking sites. The first one is 'personal profile based' social networking sites which allows individuals to generate public or semipublic personal profile and permit them to share same content with various other users of the platform (Taylor et al., 2012). Facebook, Twitter, and LinkedIn are a few examples of these social networking services (Laranjo et al., 2015). While 'content sharing sites', including Instagram, YouTube and Flickr fall under the second category. People frequently use these kind of websites to debate, rate, and share pictures and videos (Taylor et al., 2012). It is worth mentioning that Facebook, Instagram, Twitter, Snapchat, LinkedIn, Pinterest, YouTube etc. are the top social networking sites.

i. Facebook

Facebook is a prominent and widely recognized social networking platform that was launched in February 2004. Since its inception, it has become a dominant

force in the social media landscape. It is currently the most popular social networking site with a staggering 2.9 billion monthly active users (Statista, 2022). Facebook's user base is constantly growing and diverse, appealing to individuals of all age groups. Facebook has evolved beyond its original purpose of reconnecting with old friends by continually upgrading its features. These features include updating status, commenting, private messaging, tagging, sharing photos and videos, creating stories, and live streaming (Junco, 2013). Additionally, users can use the Facebook platform to participate in a variety of other activities, such as gaming and gambling (Griffiths, 2015).

Previous research based on the Uses and Gratifications theory has found that the top reasons for using Facebook are entertainment, self-expression, sharing information, attraction to the platform, documenting oneself, and social interaction (Alhabash et al., 2014). Since its foundation, Facebook has continued to dominate and rule the social media industry, and it appears there is no end in sight for the giant. Although there are a number of strong competitors, such as Twitter, Instagram, Snapchat and some others are attempting to compete, Facebook continues to stand tall and strong among its rivals. Comparing all social media sites, Facebook has the highest number of active users (Statista, 2023). These individuals enthusiastically spend hours looking through their Facebook feeds. Facebook isn't simply a social media site; for many people, it's a way of life.

ii. X (Twitter)

X, previously known as "Twitter" is a microblogging and social networking service was founded in 2006, at present owned by Elon Musk. X is one of the most prominent and well-known microblogging platforms in the entire world. It currently

has more than 368 million monthly active users (Statista, 2022). Registered users of X can read and submit quick messages called tweets. Users can post photographs or brief videos in addition to communicating with a maximum of 280 characters. Tweets can be delivered as direct messages to other users or shared on publicly accessible accounts.

According to prior study, X is typically used for information seeking, information sharing, content sharing, mobilization social interaction as well as gratification of new communication technology (Liu et al., 2010). For heads of state and government, X has also become a crucial avenue for connectedness and communication. It is frequently used to disseminate and follow significant news and events, political actions, and changes in the countries all over the world (Zhao et al. 2011). On July 22, 2023, Twitter suddenly rebranded to X. According to Elon Musk, the now-owner of Twitter/X, the name change was meant to align with it being ‘the everything app.’

iii. YouTube

Since its launch in 2005, YouTube has grown to become the biggest and most widely used online video sharing service in the world. It offers a huge variety of user generated and corporate media content, including video blogs, short original videos, TV clips, music videos, gaming videos and videos based on instructions on the topics ranging from learning language to do it yourself (DIY). One can watch the great majority of YouTube content for free. Since its inception in 2005 and subsequent acquisition by Google in 2006, YouTube has experienced remarkable growth, evolving from a mere collection of amateur videos to become the largest online video platform globally. To cater to the evolving needs of its users, YouTube introduced a

new feature called YouTube Shorts, which enables users to create and consume short-form vertical videos. Following its global launch in June 2021, YouTube Shorts has exceeded 50 billion daily views as of February 2023, solidifying its position as a significant player in the realm of online video content. As of November 2022, there were approximately 2.1 billion monthly active YouTube users worldwide (Statista, 2022).

iv. Instagram

Instagram initial appearance was in 2010. Instagram is a social networking site for sharing photos, allowing users to snap pictures and alter them with the use of readily available digital filters. Additionally, Instagram introduced the option of video sharing and Instagram Facebook. Users of the app could upload pictures and videos along with captions. Other profile holders are urged to respond by commenting, liking, corresponding, and engaging with one another. Instagram is one of the social media networks that is booming fast. Facebook and other social networking sites, particularly Instagram, are very different from one another (Wallace & Buil, 2021). The study shows how Instagram's 'centrality of photographs' sets it apart from other text based social media platforms like Facebook and Twitter. Facebook presently holds ownership of it, the number of active users of Instagram in 2022 was 1.28 billion (Statista, 2022).

Social media undoubtedly has numerous advantages, but one major drawback is that it can be addictive in nature (Kirkaburun, 2018). The design of social media platforms is specifically aimed at triggering the release of dopamine in the brain, which creates a pleasurable sensation and can lead to users becoming hooked on the 'reward loop' of social media. Additionally, social media can create a sense of anxiety

and pressure to constantly stay connected and up-to-date which leads to addiction (Griffith, 2013).

2.3 Social Media Addiction

Social media addiction has become a growing concern in today's digital society. With the widespread availability and constant accessibility of social media platforms, individuals are increasingly drawn to spending excessive amounts of time engaging with these online platforms (Kircaburun et al., 2018). The addictive nature of social media can be attributed to its design features, such as the constant stream of new content, the gamification elements, and the social rewards associated with online interactions (Eugenia, Hugo, & Wong, 2013). As social media continues to evolve and integrate further into our daily lives, understanding and addressing social media addiction has become a crucial area of research and intervention, aiming to mitigate its negative impact on individuals' mental health, productivity, and overall well-being.

2.4 Addiction

Addiction is defined as an uncontrollable, compulsive reliance on a habit, practice, or substance to the point where stopping it results in severe emotional, mental, physical, or physiological reactions (Balakrishnan & Griffiths, 2017). Addictive behavior is a repetitive pattern of actions that can lead to negative health effects, contribute to personal and social problems, and continue despite attempts to stop or reduce it. (Griffith, 2005). According to Chassin et al., (2007) addiction is a compulsive and powerful urge that causes harm to people and was born out of a lack of ability to control one's behaviour.

In addition to these definitions, it is possible to define addiction as the inability to control the behaviour of using and engaging in it out of habit due to the pleasure or satisfaction it provides. It is a notion or action that has already been experienced and produce a certain level of satisfaction, and is expected to provide new fulfilment. Generally, when people discuss addiction, they typically assume that it involves drugs or alcohol which is called substance addiction but this is not the case, in the modern period of time, behavioural addictions like video games, gambling, the internet usage, shopping and sex are receiving more and more attention (Griffiths & Demetrovics, 2012). Above all, technology based behavioral addictions are being studied extensively (Griffiths et al., 2014).

2.5 Behavioral Addiction

Scholars have recognized for the past 20 years that people can get addicted to things other than pharmacological substances. They highlight the recurring and obsessive behaviours associated with compulsive gambling, chronic excessive eating, sexual obsessions, and binge-watching television (Young, 1998). Pathological gambling has also gained widespread acceptability as an addiction, setting the stage for the adoption of other problematic behavioral addictions such as problematic internet and problematic social media use (Griffiths, 2011).

Griffiths (2005) made a substantial argument for behavioural addiction, highlighting how it can appear in a variety of non-drug related behaviors. Griffiths argued that addictive behaviors could extend beyond substances like drugs and alcohol to include activities such as gambling, gaming, shopping, and even internet use. This perspective challenged the traditional understanding of addiction, which was primarily focused on substance abuse.

Griffiths emphasized the similarities between behavioural and chemical addictions in terms of cravings, loss of control, and undesirable outcomes. He argued that addictive behaviours are motivated by psychological and physiological mechanisms that are comparable to those found in diseases associated with substance misuse. Griffith's perspective broadened the scope of addiction research.

Griffith (2005) writes that all types of behavioral addictions are comprised of six components. These components are common to all types of behavioral addictions such as gambling or internet use including social media. He described following six components of behavioral addiction.

- i. Salience:** The behavior becomes the most important aspect of the individual's life.
- ii. Mood modification:** The behavior is used to change the individual's mood or emotional state.
- iii. Tolerance:** The individual needs to engage in the behavior more frequently or with greater intensity to achieve the same desired effect.
- iv. Withdrawal:** Negative physical or psychological symptoms occur when the behavior is not engaged in.
- v. Conflict:** The behavior causes conflicts with other aspects of the individual's life, such as relationships or work.
- vi. Relapse:** The individual returns to the behavior after trying to stop or reduce it.

Griffiths (2005) argued that all types of addiction including social media addiction are comprised of these six components.

2.6 Internet Addiction

The internet usage stands out among all behavioural addictive traits because it is relevant to the modern age of digital media. Communication academics have recently become interested in the study of unrestrained internet usage patterns (Przepiorka et al., 2020). More research is being done on the various subtypes of internet addiction including social media addiction, as a result of the rapidly expanding internet technology. Three subtype of internet addiction have been distinguished by Young (1998), i.e., excessive online gaming, emailing or texting, and online sexual preoccupation. Yellowlees and Marks (2007) discussed the signs of problematic internet use or internet addiction as being unable to control the time spent online, thinking life is boring without the internet, distancing oneself from day to day interactions and real life relationships and experiencing increasing levels of depression and even loneliness.

Young (1996) characterized internet addiction as ‘an impulse control disorder which does not involve an intoxicants.’ This definition is also applied on pathological, excessive or problematic social media use. Young (1996) compared the pathological nature of internet use to pathological gambling because the latter is thought to be the most similar to problematic internet use. People who have social media addiction feel compelled to use the platform more frequently in order to meet specific needs.

2.7 Defining Social Media Addiction

Generally social media addiction can be defined as non-chemical and intoxicate compulsive behavior. It is a process of excessive usage of social networking sites like Facebook, Twitter, Instagram, Snapchat and YouTube to the extent that it interferes with an individuals’ daily life, relationships, education/job etc.

It is characterized by recurrent and persistent urge to use social media. A person experience anxiety or distress when unable to use social media and feel relaxed and relieved when restored back to the use of social media platforms.

The above mentioned conceptual definition of this study for social media addiction is based on definition given by Andreassen and Pallesen (2012). Social media addiction is defined by Andreassen and Pallesen (2012) as “being overly concerned about SNSs, to be driven by a strong motivation to log on to or use SNSs, and to devote so much time and effort to SNSs that it begins to interfere with social life and other activities, interpersonal relationships, studies, job and psychological health and well-being.”

The reason behind is that the study has applied Bergen Social Media Addiction Scale developed by Andreassen et al., (2016) to measure the addiction. The scale consists of six items that measure components of addiction similar to the Griffiths’ (2005) six-component model of behavioral addiction.

Behavioral addiction can be operationally defined in the context of social media addiction as follows: For example, a person may be classified as a Facebook addict if his/her behaviors exhibit following characteristics of six components described (Andreassen et al., 2012).

- i. Salience:** A specific online activity, such as signing in and using Facebook, takes precedence in the subject’s life and prevails his/her thinking all the time.
- ii. Tolerance:** Typically, he or she uses social media for much longer period of time than intended because of an innate drive to use it more frequently in order to experience the same amount of pleasure.

- iii. **Mood Modification:** In order to become oblivious of personal issues, they utilize social media to minimise feelings of guilt, restlessness, worry, melancholy, and helplessness. A specific social media activity alters or elevates his mood.
- iv. **Withdrawal:** Experiencing unpleasant physical and emotional symptoms when Facebook use is restricted or stopped. If prohibited from using social media, a person would often get restless, stressed, worried, or irritable as well as distressed if he/she cannot get involved in social media.
- v. **Relapse:** Subject ignores the advice from others to lessen the time spent on social media and keep its usage to a minimum. Despite the fact that he or she has frequently tried to cut back on social media but to no avail.
- vi. **Conflict:** The addict places less importance on their studies, jobs, hobbies, and recreational activities. They also neglect their partners, as well as their family and friends, in favour of using social media.

Using excessive social networking sites (SNSs) can be considered a form of addiction if it meets the criteria of the behavioral addiction model, as outlined by Griffiths (2005). The model has been utilized in determining and evaluating addiction across multiple activities, such as work (Andreassen et al., 2014), shopping (Clark & Calleja, 2008), internet gaming (Monacis et al., 2016), Facebook usage (Andreassen et al., 2012), internet and mobile phone usage (Billieux et al., 2015), and social media (Andreassen et al., 2016), among others.

2.8 Measuring Social Media Addiction

2.8.1 Internet and Social Media Addiction Scales

In 1996, Young created the Internet Addiction Diagnostic Questionnaire (IADQ) by modifying the criteria used for pathological gambling. The IADQ comprises eight items and is intended to function as a screening tool for identifying internet addiction (Young, 1996).

After Young's research, Brenner developed the Internet-Related Addictive Behavior Inventory (IRABI), which comprises of 32 true or false questions (Brenner, 1997). Morahan, Martin, and Schmacher (2000) developed the Pathological Internet Use (PIU) scale, which includes 13 yes or no questions. The FASS, a 15-item scale divided into three sections, was based on Young's Internet Addiction Scale. The items on the FASS were classified in various ways, including social networking site preference, preoccupation, loss of control, withdrawal, and adverse life effects (Alabi, 2013). The scale is also used to measure social media addiction. Shahnawaz and Rehman (2020) devised Social Networking Addiction Scale (SNA). The scale measures the degree of addiction to social networking sites such as Facebook, Twitter, and Instagram.

2.8.2 Bergen Facebook Addiction Scale

Among the most commonly used measuring scales for addiction is the Bergen Facebook Addiction Scale (BFAS), created by Andreassen and a research team at the University of Bergen in Norway (Andreassen et al., 2012). The BFAS is used in both epidemiological studies and clinical trials to evaluate Facebook addiction. It comprises 18 items in a self-report questionnaire and assesses the six major aspects of addiction as defined by Griffiths' (2005) behavioral model, which are salience, mood

modification, tolerance, withdrawal, conflict, and relapse. The participants were evaluated using a 5-point Likert scale that ranged from 1 (very rarely) to 5 (very often). In addition to the Bergen Facebook Addiction Scale (BFAS), the researchers developed several other tools to support their study, including the Online Sociability Scale, Addictive Tendencies Scale, Facebook Attitude Scale, NEO, FFI, BIS, or BAS scales, and a Sleep questionnaire (Sigerson & Cheng, 2018).

The BFAS scale was developed based on research conducted on college students and is widely used in studies examining college students' addiction to social media (Akter, 2014). The established BFAS scale has become widely used among researchers to evaluate Facebook addiction, as evidenced by studies conducted by T. Ryan et al. (2014), Eroglu (2016), Jafarkarimi et al. (2016) and Marino et al. (2018) who employed the scale to assess different dimensions of Facebook addiction.

2.8.3 Bergen Social Media Addiction Scale

The BFAS scale has shown good psychometric properties, but it has a significant limitation in that it only evaluates addiction to a specific social media site, namely Facebook. It does not take into account addiction to other social media platforms. Furthermore, the scale places more emphasis on the platform itself rather than the various activities that can be engaged in on social media.

People hardly fall victim to addicted to the internet or social media platforms themselves, so it was necessary to develop a tool with clear and precise terminology (Griffiths, 2013). To overcome the limitations of the BFAS, the Bergen Social Media Addiction Scale (BSMAS) was developed by Andreassen et al., (2016) which is the modified version of Bergen Facebook Addiction Scale (BFAS). This instrument evaluates social media use in a broader context, rather than just focusing on one

specific platform. The word 'Facebook' was replaced by 'social media'. The BSMAS addresses the issues highlighted with the BFAS and provides a more comprehensive assessment of social media addiction (Andreassen et al., 2016).

The Bergen Social media Addiction Scale (BSMAS) is comprised of six items instead of 18 items as mentioned in BFAS. One item was selected from each component instead of 3, thus developing 6 items scale. The six basic addiction elements, i.e., salience, mood modulation, tolerance, withdrawal, conflict, and relapse are applied by the BSMAS to evaluate the experience of using social media over the previous year (Andreassen et al., 2016). These elements correspond to the six basic components described by Griffith (2005) in his behavioral model. The scale is rated on a 5-point Likert scale ranging from 1 (very rarely) to 5 (very often).

The BFAS has been translated into multiple languages and studies utilizing it have consistently found its psychometric qualities to be satisfactory (Andreassen et al., 2013; Andreassen et al., 2012; Wang et al., 2015). In the adaptation, the BSMAS defines social media as 'Facebook, Twitter, Instagram, and the like' and replaces the word 'Facebook' with 'social media alone'. The internal consistency of the BSMAS was found to be high, with a Cronbach's alpha of 0.90 (Andreassen et al., 2016). Several studies have translated the BFAS into various languages, and these studies have consistently reported satisfactory psychometric properties (Andreassen et al., 2013; Andreassen et al., 2012; Wang et al., 2015).

2.9 Evaluating BSMAS

According to Andreassen et al. (2016) if a person score 4 positive out of six items, it means he/she is addicted to social media. However, Andreassen et al. (2016) admitted that there is a need for conducting more research work for settling down

cutoff scoring criteria. In 2017, a study conducted by Bányai et al. developed criteria for scoring social media addiction. The criteria were based on various symptoms of social media addiction and a cutoff score of 19 was established as the threshold for determining addiction. If a person score 19 and above out of 30, he is 'at risk' and considered addicted to social media. This study provides a standardized approach for evaluating an individual's level of social media addiction. Based on a suggested cutoff point applied to the addiction scores, Banyai et al. (2017) divided it into two parts 'at- risk' and 'no or low-risk' of social media addiction. According to Banyai et al. (2017) 'at risk' means an individual is addicted to social media and 'no or low risk' means individual is not addicted to social media.

2.10 Diagnostic and Statistical Manual of Mental Disorders

It is worth noting that the Diagnostic and Statistical Manual of Mental Disorders, 5th Edition (DSM-5) published in 2013 does not recognize internet addiction as a distinct disorder (American Psychiatric Association, 2013). Rather, the DSM-5 features a more general category called 'Internet Gaming Disorder', which is classified as a 'condition for further study' in Section III. This means that while there is significant evidence to suggest that internet addiction is a real problem, more research is needed before it can be officially recognized as a mental disorder. The criteria listed in the DSM-5 for measuring Internet Gaming Disorder include preoccupation with the internet, withdrawal symptoms, tolerance, loss of interests, and functional impairment. Thus, (IGD) has been accepted as a tentative disorder in (DSM5), which acknowledged the possible negative impact of internet addiction on a person's well-being (American Psychiatric Association, 2013).

The majority of researchers currently measure social media addiction using ‘gaming disorder’ criteria. Online gaming is just one of several activities that have the potential to become addictive, though. According to recent data, social media addiction is becoming a bigger problem for mental health and has to be treated separately (Da Veiga et al., 2018; Pantic, 2014; Ryan et al., 2014)

2.11 Previous Literature on Social Media Addiction

Research on social media addiction levels has yielded inconclusive findings, as different perspectives have focused on the negative consequences of excessive use, while others have highlighted the benefits of social media engagement. However, various studies have indicated that increased access to social media correlates with heightened concerns. Young people, singles, students, those with limited educational opportunities, and those with low incomes are at risk for developing a social media addiction (Andreassen et al., 2017). The likelihood of developing a social media addiction depends on the amount of time, frequency, and depth of active use, as well as availability to a variety of devices (Turel, 2015). Social media use has increased as a result of the development of smartphones (Andreassen & Pallesen, 2014) and easier access to the internet (Brailovskaia et al., 2018; Kuss & Griffiths, 2011).

According to research done in several nations, 13% of university students in Norway and 9% of college students in Germany are addicted to Facebook (Andreassen et al., 2013). According to Alzougool (2018), 38% of Jordanian university students, 41.8% of Thai high school students, and 47% of Malaysian students are addicted to Facebook (Jafarkarimi et al., 2016). According to Shettar et al. (2017), 33% of Indian students and 39% of Bangladeshi students are at risk for developing a Facebook addiction. A sizeable portion of students (21%) said that they

frequently get irritated if they must refrain from using social networks, and a somewhat higher percentage (27%) firmly concurred that they were addicted to social networking sites.

In a study conducted by Koc and Gulyagci (2013), it was discovered that addiction to Facebook was connected to various factors including usage time, social motivations, depression, anxiety, and insomnia. However, the study did not reveal any noteworthy associations with demographic factors. Several other studies have also indicated that frequent engagement with Facebook and other social media platforms is linked to the emergence of psychiatric disorders (Rosen et al., 2013). Furthermore, excessive use of social media can negatively impact interpersonal relationships by compromising the quality of connections individuals form with others (Tokunaga, 2011).

2.12 Gender Differences in Social Media Addiction

The studies suggested that there may be some gender differences in social media addiction, but the findings are not consistent across studies. A review of the psychological literature on online social networking and addiction suggested that women are at greater risk than men for developing addictions to social networking sites (Kuss & Griffiths, 2011). A study on the addiction to social networks in Southern Spanish university students found that girls had higher social anxiety and social addiction than boys (Aparicio-Martínez et al., 2020).

Cam and Isbulan (2012) used a sample of 1,257 Turkish university students, aged 20 to 24, of which 739 were female and 518 were male. The researchers modified Young's (1998) Internet Addiction Test, and the new instrument was given

the name Facebook Addiction Scale (FAS). Men did noticeably better on the FAS scale than women, according to the findings.

2.13 Studies on Social Media Addiction Among Pakistani Youth

Social media addiction has become a pressing issue among Pakistani youth as well, as the proliferation of social media platforms continues to shape their lives and behaviors. With the widespread availability of smartphones and internet connectivity, Pakistani youth are increasingly drawn into the allure of platforms like Facebook, Instagram, Snapchat, YouTube and TikTok. According to a survey, social networking site users are rapidly growing in Pakistan. Pakistan was among the top ten nations in Asia 2020 with the highest percentage of internet user. Pakistan grabbed sixth slot on the ranking chart with 3.1% internet users (Statista 2022). However, as far as studies on social media addiction in Pakistan is concerned, limited work has been conducted to identify addiction among social media users. The excessive use of SNSs in Pakistan has recently highlighted by a relatively small number of scholars.

Ali (2016) conducted research on how young SNS use affects family dynamics and changes in behaviour. The findings revealed that the majority (94) of the participants acknowledged that excessive social media use has a detrimental impact on family ties. They claimed to feel distant and alone from friends, family, and even themselves. Ahmer and Tanzil (2018) surveyed on the impact of SNS use on medical students' academic performance. A cross sectional research of 412 Agha Khan University medical students revealed that 74% of them had just minor addictions, 24% had moderate addictions, and 2% had severe addictions.

Saleem et al., (2015) examined how common internet addiction was among college students and how it related to loneliness. 1020 undergraduate students were

chosen as a sample. Out of 1020 pupils, the results showed that 286 students (28% of the sample) have internet addiction. The conclusion that excessive internet use leads to internet addiction was supported. Islam et al. (2017) conducted a cross sectional survey on the sample of 350 business students on excessive internet use. The findings indicated that factors such as entertainment, social connection, seeking information, and financial considerations contribute significantly to excessive internet use, which in turn negatively impacts the academic performance of students.

2.14 Theoretical Framework

While many other theoretical frameworks have been used and included in the investigation of SNS use motivations like self Determination theory and Expectancy value theory, however, the Uses and Gratifications Theory (Katz et al., 1973b) seems to have served as the primary inspiration for this investigation. Initially developed to explain mass communication media adoption behaviors, UGT is concerned with ‘what people do with the media’ as opposed to ‘what the media do to people’ when it comes to mass communication media adoption behaviours (Carey, 1988). The theory has been expanded to encompass the use of other technology applications, including social media (Ku et al., 2013).

2.15 Uses and Gratifications Theory

Uses and Gratifications is a psychological communication theory. Jay G. Blumler and Elihu Katz (1973) are credited with the development of the Uses and Gratifications Theory. In 1974, they published a seminal work, ‘The uses of mass communication: Current perspectives on gratifications research’, which provided a comprehensive overview of the theory. Later on, a number of scholars worked on it to

understand users' psychological and social needs for media consumption as well as their active participation in media choice.

The theory explains why individuals choose to use mass media and what they hope to gain from it. The theory suggests that people actively seek out mass media to satisfy specific needs and gratifications, rather than passively accepting the messages transmitted by media. The theory also acknowledges that different media platforms satisfy different needs, and that individuals often use multiple media sources to fulfill their gratifications. The choice of media use depends on the individual's motivations, habits, and resources. Overall, the Uses and Gratifications theory emphasizes the active role of the consumer in media consumption, and suggests that the gratifications sought from media use are shaped by individual characteristics and social and psychological factors.

Uses and gratifications (U&G) attempts to determine an individual's fundamental motivations for using the media as well as the positive and negative effects of that use (Katz et al., 1974). The psychological and social needs and motivations of the individual, their communication behaviour, and the effects of that conduct are the fundamental components of U&G study (Rubin, 2002). The Uses and Gratifications framework has three primary objectives: to understand how individuals utilize media to fulfill their specific needs, to clarify the motivations behind media usage, and to identify both positive and negative consequences of media use (Katz et al., 1973).

The Uses and Gratifications (U&G) approach explores the reasons behind individuals' utilization of different media, including demographic and socio-psychological differences among media users, media usage patterns, and the

connection between sought and obtained gratifications as a result of media usage motivations (Papacharissi & Rubin, 2000).

The U&G theory is based on several assumptions (Katz et al., 1974).

- a. People actively select media and media content rather than doing it in a passive way to satisfy their needs.
- b. People utilize the media to satisfy some predetermined expectations.
- c. Media consumption by people can be viewed as goal oriented, and every kind of media competes with one another to satisfy its audience
- d. People are fully aware of and able to articulate their own motivations for using the media.
- e. It is crucial to understand media gratifications and motivations before examining the cultural impact of media content on individuals.

2.16 Origin, Development and Phases

Theory is based on classic mass communication study on how people seek out and choose particular media to satisfy their needs. The research conducted by Blumler and Katz (1974) are considered an evolutionary work in the field of communication and media studies and both can surely be designated as the founders of the Uses & Gratifications Theory. Communication scholars and researchers now consider the theory of Uses and Gratifications to be scientifically valid after it underwent four stages of development (West & Turner, 2000).

i. First Phase

The first and earliest stage of development began in the 1940s and was made up of descriptive research with methodological and conceptual shortcomings. The

majority of the research conducted during this stage were devoted to determining the radio audience and contrasting it with that of print or hard copy media. The 1950s saw a fall in researchers propensity for U&G. As a result, not many studies on the subject were done. In 1940s and 1950s era, media scholars focused more on the approaches that are related to the influences of media on the viewers rather than studying how audiences used media and obtain gratification from it as the mass media was intended to alter the direction of media activities of people. The lack of a strong, distinct, and thorough theoretical framework is another factor contributing to the theory's low level of attention. Although scholars initially approached the theory from an audience perspective, they were unable to broaden the theoretical framework and incorporate psychological foundation leading to a lack of a comprehensive methodology and technique (Severin & Tankard, 2001).

ii. Second Phase

The second stage of development of the theory, as outlined by Blumler and Katz (1974), involved the practical integration of sociological and psychological components to pinpoint media usage patterns of the audience. In order to progress and open up the possibility for further expansion in the third phase, more systematic methods were employed at the end of second phase to evaluate motivational typology. These methods with the combination of techniques used to measure various components of Uses and Gratifications research in media. It can be argued that these efforts to operationalize basic variables through typological methods were a step in the right direction (Mehrad & Tajer, 2016). This stage, described by Blumler and Katz (1974) as an attempt to use gratification data to comprehend and connect other aspects of mass communications with audience expectations and motivations. As definition is

a crucial first step in theorizing in social sciences, the third phase of development holds great significance in the U&G approach.

iii. Third Phase

According to Blumler and Katz (1974), in the third step, audiences' expectations and motivations are compared to other components of mass communication using gratification data. This stage is important because in social sciences, defining is an essential step before theorizing. The third stage of development is important in the Uses and Gratifications approach. The effort to understand gratifications reaches its peak in the third phase of expansion. Several hypotheses were formulated within the framework of the approach, some were combined or modified and significant progress was made towards organizing and unifying the theory.

At this point, Katz, Blumler, and Gurevitch (1974) performed the most important and significant roles with their contributions to the Uses and Gratifications theory. They stated that people experience psychological and social needs, which in turn cause them to have expectations of the media and other sources. These patterns of media use ultimately lead to the satisfaction of needs. With the aid of Rosengren's (1974) conceptual framework, Katz et al. (1974) benefited from their explanation and detailed the key components of the Uses and Gratifications theory. Using Rosengren's (1974) conceptual framework, Katz et al. (1974) explained and outlined the main elements of the Uses and Gratifications theory.

iv. Fourth Phase

In final and fourth developmental phase, Palmgreen, Wenner, and Rayburn, (1980) offered a relatively sophisticated theoretical framework. In this time period,

theories were developed and then put to the test. According to Palmgreen and Rayburn (1985), ‘gratification sought’ and ‘gratification obtained’ shouldn’t be treated equally in theory and study. Even if people choose a certain form of media with the intention that it will benefit them, they may nevertheless choose not to use it or even enjoy it for a variety of other reasons. This result showed that it was baseless to believe that anything would be successful if people find it fascinating or even pay for it (Windahl et al., 2009). Due to its ability to evaluate a variety of psychological needs and motives, as well as communication channels, within a multicultural setting, the approach is today regarded as one of the most significant theories in mass communication, taking into account the approach’s evolutionary phases (Lin, 1996).

2.17 Components of Uses and Gratifications

The Uses and Gratification hypothesis is divided into several parts, which are as follows:

2.17.1 Active Audience

The U&G approach posited that users actively engage with and seek out particular media and information to meet their own needs, resulting in gratification. Theories regarding the media audience have evolved over time. The characteristics of the audience are very different in literature (Windahl et al., 2009). According to one perspective, psychological elements have a greater influence on audience behaviour than social ones do. Bauer (1964) referred to it as an ‘obstinate audience’. He asserted that the ‘active audience’ occasionally disagreed with the news being reported by the media. He believed that one of the essential characteristics of the audience is their deliberate selection of media (Windahl et al., 2009). With the passage of time as the development of the Uses and Gratifications Theory took place, a noticeable change

could be observed in the angle of concentrating attention to the viewers and the researchers working on it made the assumption that the audience is well aware of why they are using media. They may clearly describe their motivations for using media content and they are fully aware of it. The fundamental premise of U&G theory is that viewers deliberately seek out the content that provide with them the greatest amount of gratification (Windahl et al., 2009).

Need and Motives According to Katz et al. (1974), the needs related to the U&G theory include social and psychological, as was previously mentioned. According to U&G researchers, motivation is generated by needs. You may say that motives start with needs and drive their action related characteristics. Various classifications have been given for motives but the classification described by McQuail (1984) got the most weightage. It entails one's sense of self, knowledge of others, interactions with them on a social level, integrity, and leisure. It is true that audience members consume media for a variety of underlying reasons. Therefore, the assumption that audiences consume media for the same purposes that media creator have in their mind is not true (Windahl et al., 2009).

2.17.2 Gratification

'Content gratifications' and 'process gratification' are two different types of gratification that researchers have identified. Receiving specific messages is more important in the first case, whereas participating in the 'use process' has a considerably larger value in the second (Windahl et al., 2009). In U&G, different models of gratification have been presented, but McQuail (1984) has presented the cognitive model and the cultural model as two noteworthy ones. The cognitive model and the basic Uses and Gratifications model are very similar. The cultural model

cannot, therefore, be disregarded. Curiosity and shared interests make up motivation in the cognitive model, however the cultural model also takes into account an individual's overall expectations and preoccupations. Understanding the differences between these two models might help us better comprehend U&G. Additionally, it demonstrates that people utilize media for a variety of reasons that are not necessarily related to their intentions. For example, someone may only use a certain medium due to a feeling of dependence and belonging (cultural model), and yet not be receptive to or use the message transmitted by that medium (cognitive model) (Windahl et al., 2009).

2.17.3 Gratification Sought Versus Obtained

Palmgreen, Wenner, and Rayburn (1980) argued that the approach had methodological and theoretical weaknesses. Their major concern was to draw a line between gratification sought and gratification obtained from media and content consumption. In an attempt to make this distinction, they defined the concept of gratification sought as 'expectancy of a certain outcome (being entertained) as a function of certain behavior' for example watching news while gratification obtained referred to the 'perception that certain behavior for example, watching television results in certain outcome', such as being entertained. Hence, gratifications sought are based on expectations that an individual has with media consumption. As such, they will have an impact on what the individual perceives that are gratifications obtained from the consumption. Thus, these concepts are not the same, but they are moderately and strongly related and influence one another. For instance, those who engage in a certain television program are likely to seek their gratifications based on the gratifications they received from watching the program.

2.18 Uses and Gratifications in 21st Century

U&G has historically been used to evaluate how and why people utilize mass media, such as radio, television, and newspapers. At this time, several scholars in mass communication argued that this theory was weaker than other social science assumptions and lacked a theoretical foundation. In contrast, Ruggiero (2000) in his paper entitled ‘Uses and Gratifications theory in the 21st century’ argued that any theorizations in the setting of communication science are dependent on the uses and Gratifications theory. Additionally, this theory has gained significance as communication technology has developed. Because users of current technology now have access to a wide range of media, it is crucial to understand their needs, motivations, and levels of gratifications. Previous studies on the internet and mobile devices’ Uses and Gratifications theory align with Ruggiero’s findings (Balakrishnan, 2012; Bryant & Miron, 2004; Ji & Fu, 2013; Seekhiew, 2009; Smock et al., 2011; Wei & Lu, 2014).

Ruggiero (2000) emphasized the need to establish and develop new models that take into account ideas like ‘interactivity’, ‘hypertextuality’, ‘demassification’, and ‘asynchronous’ in order to advance the Uses and Gratifications theory. The characteristics previously mentioned should be taken into account in Uses and Gratifications model for the current era, as they each lead to different communication behaviors that require examination and evaluation. It is vital for researchers in this field to adopt a comprehensive methodology and increase the focus on qualitative and interpersonal aspects of the approach. This will enhance the accuracy and precision in studying and evaluating communicative behaviors in the digital age (Ruggiero, 2000). The significance and relevance of the theory is growing with the increasing use of technology, making it increasingly important to study extensively.

2.19 Uses and Gratifications and Modern Media Technologies

Users now have more media options thanks to the information and communication technologies' (ICT) rapid development in the 1990s. Hence, there were more chances for researchers to use the Uses and Gratifications (U&G) approach to study a wider range of common media technologies, including cable television, computers, video games, video cassette players, and the internet. The ability of U&G theory to create a cutting edge theoretical framework in the early phases of any new mass medium, including newspapers, radio, television, and the internet, is one of its key characteristics (Ruggiero, 2000). Although Kazt et al. (1974) developed the approach in the context of traditional media, more recent analysis and findings show that their classification also holds true for the internet and social media.

With the advent of new technologies in the early 21st century, there was a shift in attention from mass media to technologies facilitating mediated interpersonal communication. A lot of people now use the internet and other forms of mediated interpersonal contact as these devices have emerged as very popular tools. The U&G has been used extensively as it is a more appropriate approach for studying internet usage and applications. Compared to other traditional media, users of internet technology engage in communication even more actively (Ruggiero, 2000). The idea of an active audience and the concept of the internet's inherent quality of interactivity make U&G a particularly significant theoretical framework to look at how and why people utilize the media. Consequently, a plethora of U&G studies have been conducted on the emerging technologies, such as internet usage (Stafford et al., 2004). Various forms of modern technology have been investigated in recent Uses and Gratifications studies such as SMS (Leung, 2007) and web usage (Ferguson & Perse,

2000), as well as social media platforms like SNS, IM, blogs, and microblogs (Huang, 2014).

2.20 Uses and Gratifications and Use Motives

Uses and Gratifications, according to academics, can be categorized into five types that correspond to five groups of human needs (Katz et al., 1973).

- i. **Cognitive needs:** Learning knowledge, exploring, comprehending our social surroundings, and being curious.
- ii. **Affective needs:** Pleasure, aesthetic and emotional experiences, etc.
- iii. **Personal identity:** Social standing, self-respect, confidence in oneself, personal stability, and integrity.
- iv. **Integration and social engagement:** Need for affiliation, association with the outside world, friendships, and family ties.
- v. **Escapism:** The need to let off steam, leave a bad situation, or change one's focus from something unpleasant to something nice, tolerable and pleasant. Release tension and escape from unpleasant and worrisome situation.

The following classification, presented by Rubin (1981), offers eight different reasons for watching television programs. But he argued that this classification covers practically all potential reasons for utilizing any sort of media:

- i. To pass the time (such as watching television just to kill time).
- ii. Companionship (having good time with friends and other companions such as watching a football game along with friends and associates).
- iii. Escape (e.g. take a break from stressful and tense situation, for instance, watch television to decompress after a stressful deadline for turning in an essay).

- iv. Enjoyment (pleasure, some people experience pleasure and happiness just from watching television).
- v. Social interaction (social engagement, having a feeling and impression that we are connected to and associated with people through television, for instance, by allowing us to discuss and debate any television material).
- vi. Relaxation (a state of being mentally calm and relaxed by watching television, such as after working or just before going to bed at night).
- vii. Information (the desire to learn about the news and current affairs and happening of social events).
- viii. Excitement (e.g. watching a movie with a crime based story in which the conflict and violence create a sense of excitement).

In one of the earliest studies on the subject of motivation for which people use the internet in general, Papacharissi and Rubin (2000) identified five reasons: information seeking, interpersonal utility, passing time, entertainment, and convenience. Other communication research that used the Uses and Gratifications technique after the study found comparable motives but classified these gratifications differently. Similar motivations for the widespread usage of social networking sites are also used by social media scholars in the current technological era (Fullwood et al., 2014). Joinson (2008) conducted one of the earliest psychological research on Facebook usage in general. He discovered seven themes using factor analysis, including ‘shared identities’, ‘social connection’, ‘content gratification’, ‘photographs’, ‘social investigation’, ‘social network surfing’, and ‘status updating’.

2.21 The Role of Motivations

Motivation plays a crucial role in shaping our behaviors and patterns of usage in modern media technology. With the rapid advancements in technology and the proliferation of various media platforms, our interactions with digital media have become increasingly prevalent and influential in our daily lives. This is also true for social media usage (Ellison et al., 2007). Motivation in Psychology refers to the direction, vigour, balance, and perseverance that underlie all characteristics of intention and activation (Ryan & Deci, 2000). Keeping in view practical aspect of motivation, Mitchell (1982) defined motivation as “the degree to which a person desire and consequently choose to engage in specified behaviors” (p. 82). Researchers have identified the various types of motivations that urge people to use new communication technologies in their daily lives as a result of the enormous growth in the number of social networking site users, particularly among the younger generation (Ellison et al., 2007).

In addition to these elements, studies have been done on the frequency and usage patterns of social networks among young people and the risks and dangers associated with abusive or inappropriate use (Vanderhoven et al., 2014). The psychological viewpoint emphasizes that an individual’s psychological tendencies, rather than the internet, determine how they will be impacted. The theory of Uses and Gratifications provides a helpful framework because it assumes that active SNS users have the freedom to choose which communication channels to use to access specific content. These decisions are made based on the gratifications of particular needs that can be met by the specific content. Users of media are motivated by a few specific factors to take action in order to obtain these specific gratifications (Notley, 2009).

In the literature exploring the field of human behavior and technology, several types of use motives have been identified and studied. These motives provide insights into the reasons why individuals engage with and utilize different forms of technology, including social media platforms. Understanding these motives is crucial for researchers and individuals themselves to gain a comprehensive understanding of how and why technology is used. There are various types of use motives identified in the literature including two prominent ones, extrinsic and intrinsic motives (Deci & Ryan, 2000).

2.22 Intrinsic and Extrinsic Use Motives

Understanding the interplay between extrinsic and intrinsic motives is crucial for comprehending the complexities of social media usage and its impact on individuals and society. Intrinsic motive can be defined as when there is no particular or certain reward is associated except for the behavior or activity itself, such as an individual's own inner satisfaction or enjoyment. It alludes to specific pursuits made for the intrinsic enjoyment of a person's behaviours as a whole. People that are intrinsically motivated actively participate in the activity that they find interesting and engaging. It comes from inside of one's self and gives inner satisfaction (Deci & Ryan, 2000). In the context of gratification in social media it can be in the form of entertainment, enjoyable activity passing time and relaxation etc. (Falgoust et al., 2022; Reinecke et al., 2014).

Contrarily, extrinsic motivation occurs when a reward from the outside world is anticipated, such as something tangible like monetary incentive, reward or grades or intangible reward, such as praise or fame. It is something that functions externally. (Deci & Ryan, 2000). In the context of gratifications in social media, it can be in the

form of social interaction, relationship maintenance, information sharing and self-presentation or impression management etc. (Falgoust et al., 2022). Human behaviour has its origins in the fusion of intrinsic and extrinsic motives. According to the analysis conducted by Davis et al. (1992) motivation to use and engage with information technology systems is influenced by both intrinsic (enjoyment) and extrinsic (usefulness) elements.

2.23 Uses and Gratifications and Social Media Use Motives

According to the Uses and Gratifications Theory by Sarnoff and Katz (1954), examining motivation will help us better comprehend the communication medium. In recent times, researchers have specifically focused their efforts on understanding the underlying reasons that drive people to use social media platforms. By exploring the motivations behind social media use, these researchers aim to gain a deeper understanding of why individuals engage with these platforms.

The findings of various studies have shown that SNS users use them to satisfy their needs for entertainment, self-presentation, social interaction, and information (Ifinedo, 2016), gossip about their friends and acquaintances, seek a romantic relationship and express their identity, kill their free time, learn about social events, share their problems with others (Quan-Haase & Young, 2010), meet new people, and pursue professional development, escape, following new trends, stalking others profile (Leung, 2009), and academics engagements and achievements (Raacke, Bonds-Raacke, 2008).

According to literature evaluations, the primary reasons people use social media are to meet new people, maintain existing relationships, social interaction, it is a cool and fun (Lewis & West, 2009; Papacharissi & Mendelson, 2011), to pass the

time, relaxation (Pempek et al., 2009), to express oneself, information sharing (Papacharissi & Mendelson, 2011; Pempek et al., 2009), to manage tasks, to learn and student activism, i.e., joining specific groups of interest (Ellison et al., 2007).

2.24 Use Motives and Social Media Addiction

Recent research demonstrates that individuals' preferences for using social media vary depending on their unique differences, characteristics, and use motives. They contend that these elements could encourage users to engage in undesirable social media behaviour. Earlier studies have explored the concept of problematic social media use in relation to specific social networking sites, including Facebook (Andreassen et al., 2012), YouTube (Balakrishnan & Griffiths, 2017), Instagram (Kircaburun & Griffiths, 2018), Twitter (Davenport et al., 2014; Kim et al., 2008; Kircaburun, 2016), Snapchat (Punyanunt-Carter et al., 2017), as well as social media in general (Andreassen et al., 2017; Bányai et al., 2017; Kircaburun, 2016b; Kircaburun et al., 2018).

According to the studies mentioned, there are a number of personality, psychological, and individual differences characteristics that are connected to PSMU. According to some studies that used the U&G framework to study the relationship between social media use motives and social media addiction, the motives like relationship maintenance, entertainment, seeking friendship, diversion, self-presentation, and escapism are related to social media addiction (Chen & Kim, 2013; Floros & Siomos, 2013; Huang, 2014). According to research conducted by Chakraborty (2016), Facebook addiction was strongly predicted by factors including amusement, passing the time, and communication. In their research, Chen & Kim

(2013) discovered a significant connection between social networking site addiction and using these sites for self-promotion and entertainment.

According to a review of Facebook literature by Ryan et al. (2014), the major reasons people use Facebook are to maintain relationships, have fun, pass the time, find companionship, and escape. These factors may be connected to Facebook addiction through excessive, ingrained, or motivated by desire or mood changes usage. According to Haung (2014), those who favour self-presentation and impression management online are more likely to develop a social media addiction than those who prefer face-to-face interactions. Keeping in view the previous literature, following extrinsic and intrinsic motives were included in the study.

2.25 Extrinsic Motives

i. Information Sharing

Social media has revolutionized the way people communicate and share information, allowing for instantaneous sharing of news, ideas, opinions, and personal experiences with a wide audience. It has transformed traditional one-way communication into a dynamic and interactive exchange. According to Davenport and Prusak (1998), “information sharing is the voluntary act of making information available to others; the recipient of the information may, but need not, do likewise” (p. 5). The use of social media for communication and connection has been identified as the theme of information sharing in literature regarding Uses and Gratifications Theory (Papacharissi & Mendelson, 2011; Pempek et al., 2009). Three types of information sharing, including cooperative, mutually beneficial, and relationship based information sharing, were described by Bao and Bouthillier (2013).

On social networking sites, people may share information with the idea of working with others to accomplish shared goals. For instance, to pursue the advantages of learning, and build relationships with one another. In the context of social media, information sharing involves individuals posting messages or comments about their thoughts, ideas, knowledge, information, or experiences for others to access. This allows interested parties to learn from the content and gain knowledge (Meishar-Tal & Pieterse, 2017). According to a study by Cheung et al. (2011), social media is used by people to maintain connections with others and engage in fast conversation. One of the main motivations people give for using social media is social connection for the purpose of transferring information (Pempek et al., 2009).

Osatuyi (2013) conducted an exploratory study into the use of social media technologies for information sharing and discovered that users shared sensitive, sensational, political, and informal information through these platforms while using various cues to denote the veracity of the shared information. Eid and AlJabri (2016) investigated in a study how Saudi Arabian university students used SNSs to share knowledge and learning. In addition to online chat and discussion, SNSs were also used for content production, file sharing, leisure, and amusement. The results showed a link between the use of SNS and knowledge sharing as well as student learning. By examining university students' perspectives, Hashim et al. (2016) study validated the advantages of social media in learning. The findings showed that a sizable majority of students were using social media resources for learning. On the other hand, a study by Koranteng et al. (2018) produced different results. They looked into how SNS use affected students' engagement and discovered that SNSs had an insignificant effect on academic knowledge exchange, which in turn had a negligible effect on students' engagement.

According to several studies, social media was used by the majority of university students from developing nations, but only a small percentage of them used it for academic purposes. Over these platforms, they were heavily engaged in socializing, having fun, and entertainment (Walubita & Akakandelwa, 2017). Hussain (2012) did a study to look into the usage of social media by Pakistani university students. Facebook was the most widely used social media platform among the students when it came to usage. Information sharing, academic activity exchange, and experience sharing were the most common activities observed among the students.

ii. Social Interaction

The use of social media for communication and interpersonal connection has been identified as the theme of social interaction in literature regarding Uses and Gratifications Theory (Papacharissi & Mendelson, 2011). Social interaction in the context of social media usage refers to the various ways individuals engage and communicate with others on social media platforms. Social media platforms provide opportunities for people to connect, interact, and share information with a wide range of individuals, including friends, family, acquaintances, and even strangers (Muntinga et al., 2011). The need for social interaction and integration as well as a person's willingness to participate in social benefits have been identified as the main reasons why people use internet (Hennig-Thurau et al., 2004).

Connecting with friends and having a sense of belonging, looking for support from family and society, and replacing real life partnerships are some of the reasons people use social media (Muntinga et al., 2011). People find the internet to be a handy and cosy setting where they may express their inner thoughts, opinions, and experiences, as well as update their near ones, such as family and friends, about their

most recent information (Leung, 2009). Internet users claim that the ability to create online content allows them to be recognized, interact with friends, and be entertained, as well as to advance their knowledge and discover the wider world (Leung, 2009).

People socialize for a variety of reasons, including exchanging personal information, getting to know fascinating people, staying in touch with friends, getting support from peers, and feeling like members of a community in the form of like, share comments and pictures and video sharing (Park et al., 2009). It has been noted that interactions frequently occur between people who are already acquainted with one another in the offline world (Ross et al., 2009; Wilson et al., 2012). But the participants also utilize SNSs to establish new online relationships. Many users spend a lot of time on SNSs communicating with other profile holders, regardless of their proximity in space, and exchanging a lot of personal information (Tosun, 2012).

Agarwal and Mital (2009) identified three components: the first is ‘widening of perspective’, which includes learning about the business environment and developing career goals; the second is ‘sharing of opinions’, which includes asking for assistance from others and making plans with friends and family; the third component is ‘personal socialization’, which includes keeping in touch with friends, family, or strangers as well as managing new acquaintances. Social media, in particular for young people, offers quick and simple access to real time engagements and activities including different events, chatting, and picture sharing. The majority of the time that young people spend on social media is spent updating their status and relationships (Fox & Moreland, 2015).

iii. Self-Presentation

Self-presentation refers to the conscious effort made by an individual to manage and shape the way in which others perceive them, in order to achieve a desired impression or outcome. (Baumeister, 1982; Leary & Kowalski, 1990). One of the researchers who first recognized people's urge to show oneself to others as an acceptable person was Goffman (1956). He explained how the self-performer has a primary motivating factor and how people can strategically manage the impression they portray. People put on masks, act out their role, and strive to present themselves in ways that reflect how they see themselves or how they want to be perceived by others (Goffman, 1956).

It is an intentional or unintentional attempt to shape perceptions while interacting with others. When a person wants to project a pleasant and positive image of themselves to others, they manage their impressions (Bolino et al., 2008). Therefore, it can be claimed that people act in ways that reflect their innate desire to be liked and included (Leary, 1996). Managing impressions is the goal of self-presentation (Goffman, 1956). As a result, the two ideas can be used interchangeably (Tedeschi & Riess, 1981). According to Rosenberg's (2009) analysis of online impression management, are self-promotion, manipulation, damage control, and role model. Numerous other characteristics could support online self-presentation in social media. For instance, having more friends listed on one's profile indicates popularity and promotes favourable review. Users can choose which photos best represent themselves or showcase specific facets of their personalities (Kleck et al., 2007).

People can modify a variety of qualities on the various online networks to make oneself seem funnier, friendlier, or more likeable than they actually are

(Chester, 2007). According to research, people tend to exaggerate and are not always truthful when they post things online. For instance, 'Fakesters' create false profiles, provide inaccurate information, and appear to be more fascinating and successful. On social media, some users simply alternate between their 'false' and 'actual' selves (Jung et al., 2007). As a result, users actively engage in various SNS activities to maintain their structured impression. The online self-presentation offers young people unprecedented opportunities in their work on identity. Younger generations use social networking sites to showcase different aspects of their identities by exhibiting images, reading explicit self-descriptions, and showcasing friends' remarks (Zhao et al., 2008).

2.26 Intrinsic Motives

i. Entertainment

The entertainment construct of Uses and Gratifications can be defined as the degree to which social media content is enjoyable and fun for media users (Eighmey & McCord, 1998). The potential of entertaining media to satiate audience requirements for hedonistic pleasure, emotional release, and satisfaction is what makes it so important (McQuail, 1983). The word 'entertainment' refers to pleasure, enjoyment, and a way of life (Hemmah, 2009). Enjoyment is one of the intrinsic and self-motivating factors that enables people to experience ecstasy and contentment when engaging in particular behaviours even in the absence of a tangible or external compensation (Deci & Ryan, 1985). People are driven to participate in a variety of leisure activities by a strong desire. According to the U&G theory, people use social media to satiate a variety of needs, including the need for enjoyment.

According to Manasijevic et al. (2016), people from all walks of life use Facebook frequently for enjoyment on a daily basis. According to the literature, SNSs let users watch movies, share jokes, and upload and download music videos (Chuang, 2015). When Binsahl et al. (2015) looked into how Saudi Arabian students used Facebook, 60% of the participants said they used it for entertainment. Both Papacharissi and Rubin (2000), and Palmgreen and Rayburn (1979) expanded their scales by including an amusement component.

The notion of entertainment also includes general amusement, profile surfing, and idleness. The high mean score of the entertainment component, according to Sheldon (2008), showed that this is a significant and potent form of enjoyment sought when using Facebook. According to Williams and Whiting (2013), about 64% of respondents said they use social media as a form of entertainment. Playing games, viewing films, and listening to music were a few of the mentioned source of entertainment. A few people admitted to using social media for fun and comic relief. In some of their remarks, people said that they enjoy ‘reading comments and stuff that makes me laugh’, ‘listening to jokes’, and ‘seeing the crazy on Facebook’ and how they behave while some people mentioned playing video games (Reinecke et al., 2014). Mohammadi et al., (2018) highlighted entertainment motive as an interest that emerged as a significant predictor of SNS use. Many people participate in SNS activities to enjoy themselves, have fun, and feel excitement in their daily lives (Lin & Lu, 2011).

ii. Pass Time

The term ‘pass time’ refers to a user’s inclination to seek out material whenever they have spare time or to generate content when they have nothing else to

do. The construct 'pass time' is also called 'Killing the time' (Chua et al., 2012). Using social media to occupy the time and to get rid of boredom is another definition of the theme of Uses and Gratifications theory. The title of this construct was taken from a study by Palmgreen and Rayburn (1979) on the gratifications and pleasures of watching television. When analyzing internet usage, Papacharissi and Rubin (2000) also employed the concept pass time. They used phrases like 'I use the internet when I have nothing else to do' and 'to occupy my time' as scale items.

A survey by Whiting and Williams (2013) revealed that 76% of the sample admitted to using social media to kill time. Social media is used by respondents when they are idle, bored, or looking for something to do. Many people admitted to utilizing social media as a way to pass the time at work or school (Jafarkarimi et al., 2016). A few users said that they use Facebook while at work when they are bored. The term 'passing time' refers to the practice of regularly using Facebook to pass the time when one is bored or to put off doing other things (Sheldon, 2008). When using Facebook for this purpose, one might do things like play games or check the Headlines Feed or for the latest news (Papacharissi & Mendelson, 2011). Barker (2009) analyzed that motivation of passing the time encourages online users, particularly women, to use social networking sites.

iii. Escapism or Diversion

Escapism is the desire of an individual to escape from his or her regular troubles, worries, and issues in real life (Hirschman, 1983). According to Young et al., (2017), escapism is a practice used to divert attention away from issues in one's daily life. Escapism was defined by Turel et al. (2010) as the inner satisfaction people have when they forget about their daily tasks and engage in enjoyable activities, such

as using social networking sites. Escapism is described as the amusement one derives from engaging in behaviours that are supportive of avoiding daily obligations, challenges, and constraints of social life (Klimmt & Vorderer, 2003). According to Katz et al. (1973), users' desire for escapism in the context of media consumption is based on a 'escape need or need for diversion.' It describes a certain mental state in which people seek to escape from anxieties, issues, and problems in real life or to relieve tension brought on by such things. Social escapism motivation was a major predictor of social media usage. People use SNSs because these websites give them access to environments that are beneficial for detaching their minds from the daily worries and problems of real life (Orchard et al., 2014).

According to Cha (2010), in order to escape daily concerns and troubles, college students prefer to spend more time than usual on social media platforms, particularly SNSs like Facebook and other apps that are similar. Similar findings were made by Korgaonkar and Wolin (1999) who discovered a positive causal association between users' drive for social escape and the amount of time they spent online. According to Vorderer et al. (2004), people look for media content to satisfy their urge to momentarily escape from the actual world. Numerous research have shown that online behaviours, such as using social media or playing video games, are really utilized as coping mechanisms, as a means of distraction, or as an attempt to escape from reality (Masur et al., 2014). Escapism is an intrinsic drive (Masur et al., 2014), which involves avoiding difficult, unpleasant, dull, or frightening escapes of daily life. It can also be used as a phrase to describe the efforts people take to assist in easing protracted emotions of sadness or depression (Young et al., 2017).

2.27 The Big Five Personality Trait

The study of personality has long fascinated psychologists and researchers, aiming to understand the unique characteristics that shape human behavior and influence various aspects of life. One of the most influential and widely accepted models in the field is the Big Five Personality Traits which is also called Five Factor Model (McCrae & Costa, 1990). The emergence of the Big Five has revolutionized our understanding of personality, providing a comprehensive framework to describe and measure individual differences.

Personality traits have been defined as ‘dimensions of individual variances in dispositions to reveal dependable patterns of thoughts, feelings, and actions’ (McCrae & Costa, 1990, p. 23). Personality can also be described as a dynamic system that generates distinctive patterns in an individual’s thoughts, feelings, and behaviour (Allport, 1961). The Big Five-Factor Model is a theoretical framework created by scholars in the field of Psychology (Goldberg, 1990; John & Srivastava, 1999; Costa & McCrae, 1992). There is evidence that all personality assessments can be streamlined and organized using a five factor personality model (Goldberg, 1990).

According to several researchers (Fleeson & Jayawickreme, 2015), personality is a valuable construct for both explaining and predicting behaviour. The five guiding principles provide a general overview of what researchers, clinicians, and academics should take into account when trying to understand the Psychology behind specific human behaviours. The emergence of the Big Five has revolutionized our understanding of personality, providing a comprehensive framework to describe and measure individual differences.

Psychology scholars have agreed that the five dimensions of the Personality Model are the best way to define and explain the many personality domains (Moore & Mc Elroy, 2012). The Five Factor Model (FFM) of personality is regarded by Costa and McCrae (1992) as the most thorough and parsimonious model currently in use in this area of research. As a result of the model's extensive empirical validation, it is currently regarded as the 'gold standard' for measuring personality traits and features. (O'Connor & Paunonen, 2007).

The Five Factor Model can be used to investigate people's behaviour in a variety of circumstances, including social networking activity. The framework and organizational structure of the model are both clearly defined. Therefore, the five important and general personality characteristics can be measured in a consistent way (Goldberg et al., 2006). Furthermore, it is widely believed that the model's five components will remain constant across time (Costa & McCrae, 1992). There is broad agreement on the model's structure across cultures and languages, and it has been used for many years in cross-cultural study. The Big Five is therefore a reliable and universal model that can be replicated across various cultures.

Numerous scholars have focused on personality in various contexts. For instance, in the adoption of technology, media preferences, internet banking, academic accomplishment, work performance and consumer behaviour (Komarraju et al., 2011; Kräuter & Faullant, 2008; Vishwanath, 2005). A major individual variation that affects media use motivations and gratifications is thought to be personality (Rubin, 1993). The worldwide recognized Big Five Personality Dimension is consist of following five basic personality characteristics: extraversion (being outgoing and talkative), conscientiousness (being hardworking and organized), openness to

experience (being curious and original), and agreeableness (being well-mannered and soft hearted), neuroticism (being erratic and impatient) (Costa & McCrae, 1992).

i. Openness to New Experiences

Openness to new experiences means a person is receptive to new ideas and experiences and has an open mind. People with high openness scores are creative and curious about new experiences (Costa & McCrae, 1992). Different levels of intellectual curiosity, aesthetic sensitivity, and imaginative capacity are represented by openness to experience (Zhao & Seibert, 2006). People that are highly receptive to experience appreciate thinking and coming up with innovative ideas, and they love to learn. They have an appreciation for beauty and the arts, whereas those low in openness to experience have closed minds and often have a limited variety of intellectual and creative interest (Ross et al., 2009). Receptiveness to new and innovative ideas, attentiveness to inner feelings, preference for varied sensations, and intellectual curiosity are some basic characteristics of the dimension of openness-to experience (Grehan et al., 2011). According to the literature, people who fall into this category are unconventional, creative, and broadminded. People with high openness trait scores are more likely to be intellectually curious and like creative endeavors (Ross et al., 2009). Individuals who may be viewed as having low levels of the personality trait openness to new experiences may also be more traditional and strive towards abstract thinking (McCrae & Terracciano, 2005).

According to Guadagno et al. (2008), people who scored well on being open to new experiences were more likely to blog, which is a modernistic trait of specific social media. Openness has been related to the use of social media to connect with

like-minded people, find new friends, learn, share new information, and search for products (Bowden-Green et al., 2021).

ii. Conscientiousness

Conscientiousness refers to how organized, efficient and dependable a person is. Highly conscientious people prefer order, pursue their goals with persistence, and are completely committed to meeting their obligations and duties. It is frequently characterized as competence, accomplishment, neatness and duty (Costa & McCrae, 1992). According to the literature, those who are conscientious have features including willpower, self-control, reliability, and a sense of purpose (Grehan et al., 2011). Instead of being negligent, reckless, and sloppy, conscientious people plan effectively, are organized, and dependable when things need to get done. People that do poorly are frequently untrustworthy, reckless, disengaged, and careless (Caspi et al., 2005). According to Lönnqvist et al. (2014), conscientiousness was linked to reduced time spent on social networking sites, those who score highly on conscientious will not devote a lot of time and attention to SNS like Facebook. According to a study by Launders and Lounsbury (2006), college students who scored poorly on conscientiousness spent more time engaging in social media activities than those who did well.

iii. Extraversion

Extraversion can be defined as the extent to which individuals exhibit outgoing, active, assertive, and talkative behaviors (Ross et al., 2009). Extraversion exists on a continuum along with its counterpart, introversion, and is considered a broad interpersonal trait. It is a fundamental dimension included in various personality models, such as the Five-Factor Model. Extraverted individuals are enthusiastic and

gregarious, chatty and warm. While those with low extroversion tend to be more private and reclusive (Costa & McCrae, 1992; John, Naumann & Soto, 2008). People who are extraverted like interacting with others. They frequently have positive feelings like joy and enthusiasm and are quite at ease expressing themselves in a variety of group settings (Zhao & Seibert, 2006).

While low extraversion people were described as reserved, quiet, and preferring to live independently. They also preferred to be alone (Zhao & Seibert, 2006). Extraversion encourages people to join up for and participate in SNS activities since it is favourably associated to communication (Ross et al., 2009). When examining extraverts and their activities on social networking sites, it is not appropriate to focus solely on the frequency of SNS usage; rather, one should consider the SNS features that extraverts use the most frequently and the amount of personal contacts they have (Seidman, 2013).

As extraverts have a tendency toward sociability, it gives them more opportunities to make new friends in the social networking sphere and add these new acquaintances to their personal contact lists afterwards (Seidman, 2013). According to research conducted by Correa et al. (2010), it has been suggested that Facebook may appeal more to extraverts. This is due to several factors, including the platform's ability to provide unlimited contact with friends, opportunities for social enhancement, and the potential to fulfill their needs for high levels of stimulation and frequent social interaction.

iv. Agreeableness

Agreeableness refers to extent to which an individual is willing to compromise, get along with others, and value the well-being of others (Costa &

McCrae, 1992). Additionally, behavioral measures such as the extent to which an individual is willing to help others or conform to group norms can also be described as the characteristic of this trait. Being agreeable is positive state of mind toward other people. High scoring agreeableness individuals are kind and sympathetic. Low agreeableness scorers tend to be more analytical and detached. Differences in empathy, deference, and acceptance of others are captured by agreeableness. While disagreeable people are more likely to show less consideration for other people and societal rules of politeness, agreeable people show emotional worries for others' wellbeing, treat others with regard for their personal preferences and rights, and generally have positive opinions about others (Bowes & Weed, 2020). According to Patrick (2011), agreeableness relates to a person's interactions with others that are direct, altruistic, trustworthy, compliant, tender-minded, and humble.

According to Jensen-Campbell et al. (2002), agreeableness is linked to how people preserve healthy interpersonal relationships with one another and is unrelated to interpersonal conflicts, rage, or aggressiveness. On the other side, a low agreeable person may have cold, selfish, argumentative. In contrast to those who are unpleasant, confrontational, spiteful, manipulative, and stubborn, agreeable people are typically cooperative, generous, empathic, kind, and well-mannered (Caspi et al., 2005). Agreeableness is associated with social media use for social interaction and pro-social behavior. It was also found to be related to posting more photographs, but spending less time gaming on social media (Kim & Jeong 2015). However, Launders and Lounsbury (2006) found a negative association relationship between agreeableness and the overall usage of internet.

v. Neuroticism

The neuroticism personality trait focuses on individual variations in adjustment and emotional stability (Zhao & Seibert, 2006). Judge and Ilies (2002) found that a person's poor emotional adjustment manifests as anxiety, tension, and sadness. According to Patrick's (2011) analysis, neuroticism includes characteristics like despair, anxiety, aggression, self-impulsivity, consciousness, vulnerability, and insecurity. People with high degrees of neuroticism frequently struggle with intense negative emotions, despair, and self-consciousness; they also find it challenging to effectively regulate their thoughts, which can lead to emotional self-involvement (Renn et al., 2009). In contrast to the typically serene, tranquil personality of those who are emotionally sound and stable, high scoring neurotic people typically display tense, aggressive, impulsive, volatile, and restless conduct, holding the likelihood of suffering anxiety. The absence of good psychological adjustment and adaptability as well as the presence of emotional instability are generally considered to be the underlying mechanisms of neuroticism (Seidman, 2013). Highly neurotic individuals have a great desire to continue using social media and the internet. They are motivated by their loneliness to utilize social networking sites to meet new people online, therefore they are willing to spend a lot of time online (Wolfordt & Doll, 2001).

The relationship between social media use and neuroticism can be explained in terms of an increased desire for self-expression, which serves as a means of obtaining social support (Shen et al., 2015). Additionally, it has been discovered that individuals with neurotic traits communicate more accurate and authentic information about themselves on their social networking platforms and are more direct and honest about what they publish and display. They do this in hopes of finding someone online

who has comparable qualities (Amichai-Hamburger & Vinitzky, 2010). It makes sense to talk about the drawbacks of unrestrained internet use in regard to the personality trait, neuroticism (Baruch,2001). It has been established that neuroticism increases the chance of developing an addiction to the internet (Tsitsika et al., 2011). According to Kuss et al. (2013) research, the higher a person's neuroticism score, the more reliant they are on the internet. As a result, people with emotional instability are more susceptible to the negative effects of internet addiction and spending too much time online (Yao et al., 2014).

2.28 Relevant Studies

Personality traits can significantly influence an individual's behavior and choices when it comes to social media use. Numerous studies have explored the connection between personality traits and social media usage. According to a study by Ross et al. (2009), individuals who have high scores in the personality trait of openness are more likely to use social media's social features frequently. However, the study found no significant correlation between the trait of extroversion and the amount of time spent on social media, usage of Facebook's communication functions, or the number of online friends, despite extroverted individuals participating in more online groups. In a study conducted by Amiel and Sargent (2004), it was discovered that individuals with high extraversion tend to use computer-mediated communication as a means of socializing, but not as the replacement for face-to-face interactions. On the other hand, individuals with high neuroticism tend to use the internet to stay up to date with current events and maintain a sense of community.

In their study, Correa et al. (2010) investigated the relationship between personality factors and social media use as well as the impact of age and gender on

social media usage. The results showed that emotional stability had no bearing on social media use, although extraversion and openness were found to be important predictors. Another study by Alan and Kabaday (2016) examined the personality characteristics of Generation Y, or millennials in relation to social media usage. Their findings revealed that individuals score highly on extraversion and openness showed more inclination towards social media activities. The relationship between social media use, several personality factors, and social isolation was examined by Whaite et al. (2018). According to their findings, extraversion and agreeableness are linked to reduce social isolation, but neuroticism is related with higher social isolation. Furthermore, people who scored high in conscientiousness faced higher risk of social isolation than people who scored low.

Lampe et al. (2006) found that individuals are less likely to find various activities on Facebook to make new connections rather they are more inclined to use it as a surveillance tool to preserve ties and learn more about the people they meet offline. In an effort to satiate users' needs for self-presentation and belonging, Seidman (2013b) looked for a correlation between the Big Five personality traits and Facebook use. Low conscientiousness and high neuroticism were found to be the best predictors of self-presentational actions, whereas high agreeableness and neuroticism were revealed to be the strongest predictors of belongingness related behaviors and motivations.

Furthermore, the use of Facebook was positively linked to extraversion, while the expression of one's ideal self and concealed self was negatively related to neuroticism. The study found that neuroticism, agreeableness, and extraversion were positively correlated with the tendency to reveal one's authentic self on social media.

Moreover, individuals with a high level of conscientiousness were found to be more cautious in their online self-presentation.

2.29 Relationship between Big Five Personality Traits and Social Media Addiction

Research has increasingly focused on exploring the relationship between the Big Five personality traits and social media addiction. Several studies have found significant associations between specific personality traits and the propensity for developing addictive behaviors towards social media platforms (Correa et al., 2010; Kircaburun & Griffiths, 2018). The earlier studies have also shown association between different dimension of Five Factor Model and Social media Addiction. All personality characteristics have a considerable impact on online addictions. Extraversion, neuroticism, and openness to experience showed positive correlation with internet addiction (Zhou et al, 2018). In another study extraversion was positively while conscientiousness was negatively correlated with problematic social media use (Wilson et al., 2010). Andreassen et al. (2012) in a study revealed that neuroticism and extraversion were positively related to Facebook addiction, however conscientiousness found to be negatively related to Facebook addiction. Introversion, conscientiousness and neuroticism have all been linked to more problematic Facebook use (Marino et al., 2016).

In another study, problematic Twitter use was positively correlated with introversion, agreeableness and conscientiousness after controlling for gender (Kircaburun, 2016a). The likelihood of internet addiction connected to personality traits and demographic factors among Italian university students was explored by Servidio (2014). The sample included 117 females and 73 males between the ages of

19 and 26. The Big Five Inventory was used to identify the five personality traits, and the Internet Addiction Test was utilized to quantify how inappropriate internet use affected daily living. The study took into account the participants' gender, age, and other variable demographic variables, as well as the length of time spent online and its intended use. It showed that males are more prone to indulge in internet maladaptive behaviour. When personality traits and internet addiction were compared using Pearson's correlation analysis, a negative correlation was found between internet and conscientiousness and agreeableness. The results of multiple regression analysis, which took into account internet usage, demographic characteristics, and personality traits, showed that only conscientiousness and openness to experience negatively connected to online addiction, whereas extraversion and neuroticism was positively correlated.

The study conducted by Wilson et al. (2010) aimed to investigate the association between personality traits and internet addiction among a sample of 616 university students. The study findings indicated that there was a significant negative correlation between internet addiction and two personality traits, namely conscientiousness and agreeableness. Specifically, students who scored lower on conscientiousness and agreeableness tended to have higher scores for internet addiction. Wang et al. (2015) examined the influence of personality traits on the level of social media addiction among secondary school students. According to the findings, extraversion and neuroticism were found to be strong predictors of addiction degree rather than gender. Additionally, agreeableness and openness to experience students spent substantially more time on social media than the others. According to a study done at the University of Bergen with a sample size of 218 students, openness to new experiences was correlated with Facebook addiction but not internet addiction

(Andreassen et al., 2013). Overall, these studies suggest that there is a relationship between Big Five Personality Traits and social media addiction, with certain traits being more strongly associated with addiction than others.

2.30 Gaps in Literature

The investigation into the reasons behind and the effects of using social media is still a developing field within the larger academic discourse on media consumption. The field is relatively new, and as technology continues to evolve and shape our daily lives, the need for further exploration into the personality characteristics, motivations and consequences of social media use is much required. Conducting a literature review allowed researcher to become familiar with current concepts and theories related to social media usage and in the process, several key gaps were identified in the literature:

The use of social media has become a central part of daily life, particularly among younger generations, leading to a growing interest among scholars worldwide in researching various aspects of social media activity. This trend is reflected in the increasing number of studies being conducted in this field. Despite this, it remains a relatively new area of research within the larger academic discourse on media consumption and much more work is needed to fully understand the complex and multifaceted nature of social media use and its impacts. A number of empirical studies have been carried out in other countries especially Western world which have taken into consideration not only internet addiction generally, but also social media addiction particularly. In Pakistan, there is limited research on the use of social media, with most of the existing literature being non-academic, consisting of opinion pieces and blogs rather than empirical studies, and therefore lacking solid conclusions.

Hence, it is crucial to expand the understanding of social media research in Pakistan for future reference and therefore present study is aimed at adding to the body of knowledge in this area by examining the moderating effects of extrinsic and intrinsic motives of social media use on the relationship between personality traits and social media addiction. Although individual research has been conducted on the variables mentioned, there is currently a lack of literature that specifically examines the combined effects of these variables within the context of Pakistan. To the best knowledge of the researcher, no study has been conducted that combines these variables in a Pakistani setting. This gap in the literature highlights the need for further investigation in this area.

There are studies found in literature that deals with personality traits as predictors of social media addiction or studies that focused on mediating role of social media use motives but there is hardly any research found that focused on the influence of intrinsic and extrinsic motives as a moderating variable. The researcher has used both extrinsic and intrinsic motivation as a moderator, drawing from the concepts of the Uses and Gratifications approach, which have never been combined in this way before. Hence, no studies have been found in the Pakistani context that examine the relationship between personality traits and social media addiction, with social media use motives (extrinsic and intrinsic) acting as a moderating variable. Therefore, the goal of this study is to ascertain how social media use motivations influence the association between personality traits and social media addiction in young Pakistani adults.

Thus the proposed study endeavors to furnish as well as enrich the existing literature in this particular area of social media addiction. There is a gap in literature that needs serious attention due to the existing large and growing young subscribers

for the social media platforms, i.e., social networking sites in question. The previous studies conducted in Pakistani context, which are drastically less in number, conducted in predominantly non-empirical, consisting of anecdotal accounts or blog posts lacking conclusive outcomes and findings.

The current study sought to address the limited availability of empirical research on social media addiction within the local Pakistani context. While in existing literature, most of empirical studies were conducted in Western environments that have provided substantial findings and outcomes, there remains a notable gap in research conducted specifically in Pakistan. Therefore, this study sought to bridge this gap by conducting an empirical investigation within the Pakistani setup, thus providing valuable insights into social media addiction within the local cultural and societal context.

2.31 Research Questions

The study focused on the finding of answers of the following research questions:

RQ-1: Is there any significant difference in the level of addiction between male and female university students?

RQ-2: What is the relationship between Big Five Personality traits (extraversion, conscientious, agreeableness, neuroticism and openness to experience) and social media addiction?

RQ-3: Do social media use motives (extrinsic and intrinsic) moderate the relationship between personality traits and social media addiction?

2.32 Research Hypotheses

2.32.1 Gender Difference in Technology Addiction

Recent research on technology addiction dealt with various aspect including whether there is any gender difference in terms of social media usage and the risk of developing addiction vary across gender or not. However, there aren't any consistent findings in this area in literature. According to a study by Ray et al. (1999), it was found that men tend to have more favorable attitudes towards computers. Additionally, men are more prone than women to become addicted to the internet, computers, and online games (Bianchi & Phillips, 2005). On the other hand, Toda et al. (2006) discovered that women had a higher risk of developing an addiction to internet. Research suggested that the risk of addiction may be higher for females in the setting of the internet, social media, and mobile phones (Hong et al., 2012). No gender differences in the addiction to online games were found by Smahel et al. (2008). Prior research typically took a descriptive route to analyses gender differences with relation to the propensity to become addicted to technology. So in the light of prior research, it can be hypothesized that:

H1: There is a significant difference in the level of addiction between male and female university students.

2.32.2 Association between Personality Traits and Social Media Addiction

Personality traits were found to be risk factors for a variety of addictions (Andreassen et al., 2013) including compulsive buying, Facebook addiction, internet addiction, study addiction, and addiction to mobile phone devices. Previous literature revealed that there is a negative association between conscientiousness and Facebook addiction (Andreassen et al., 2012; Bachnio et al., 2017). According to Andreassen et

al. (2012), this negative association can be explained by the possibility that conscientious persons are more preoccupied with other responsibilities and deadlines. As a result, they view activities like using Facebook to be less important.

Kircaburun and Griffiths (2018) suggested that there was a correlation between high levels of conscientiousness and a low level of addiction to social media. This was because individuals who possessed high levels of conscientiousness tend to be more committed and goal-oriented, and therefore, are less likely to spend excessive time on activities such as using social media. In simpler terms, as an individual's level of conscientiousness increases, their involvement in social media activities decreases. Recent research has demonstrated that there is a negative correlation between openness to experience and Facebook addiction (e.g. Andreassen et al., 2013; Bachnio et al., 2017).

According to Panda and Jain (2018), people who are open to new experiences tend to engage in a variety of activities. This is because they rapidly become bored and prefer to try new things as they are curious by their personality characteristics. Openness to experiences described the originality, depth and complexity of an individual's mental as well as experiential life. The findings of various research studies showed that the more openness to experience, less addicted to social media. This means social media were perceived by the individuals not as the platform to pursuit life experiences rather they use it for social interaction and communication. So the people with innate curiosity and novelty less likely to be addicted to social media (John et al., 2010). In general, agreeableness entails a focus on harmony in interpersonal relationships as well as being likeable and pleasant (Bernardin et al., 2000).

People with high agreeableness are perceived as nice and pleasant by others, they easily form peer networks, and since they value social interaction, they exhibit warmth, zeal, compassion, and collaboration, which may encourage them to participate more in social media activities. Accordingly, the findings of the earlier research indicated a considerable connection between agreeableness and social media addiction. It implied that those who exhibit agreeableness tend to become addicted to social media (Servidio, 2014). Few research has found that people who score high on agreeableness may be more susceptible to social media addiction. The study found that people who scored high on agreeableness were more likely to engage in problematic social media use, such as checking social media compulsively and experiencing negative emotions when unable to access social media (Kırcaburun & Griffith, 2018).

Extraversion people are more sociable and believe in social interaction. People with strong extraversion scores have been noted to be more likely to involve in online social interactions (Gosling et al., 2011). Previous research has shown that people with strong extraversion tend to engage with their online peers more on SNSs (Ross et al., 2009). Similar to this, extraversion and excessive usage of social media are positively correlated (Andreassen et al., 2013). Ryan and Xenos (2011) made it abundantly evident that extraversion and problematic Facebook use are strongly correlated.

According to earlier studies neuroticism and addiction have a favourable association. People with low emotional stability and strong neuroticism may use Facebook more frequently to control their mood and find support (Andreassen et al., 2012; Bachnio, 2016; Mahmood & Farooq, 2014). Additionally, people with neurotic tendencies are more addicted to social media because they are jittery, moody, and

dislike face-to face interactions. As a result, they are more active on social media and prefer to spend a lot of time there because it is simpler to conceal one's identity there (Amichai-Hamburger et al., 2002).

The following hypothesis has been constructed to investigate the association between personality traits and social media addiction in light of the aforementioned considerations.

H2: Big Five personality traits will predict social media addiction.

So H2 posits that:

H2a: Conscientiousness will negatively predict social media addiction.

H2b: Openness will negatively predict social media addiction.

H2c: Agreeableness will positively predict social addiction.

H2d: Extraversion will positively predict social media addiction.

H2e: Neuroticism will positively predict social media addiction.

2.32.3 Extrinsic and Intrinsic Motives as Moderators

The main goal of the study is to understand the key determinants that influence social media addiction. The study of Uses and Gratifications approach explained how the influence of the underlying motivations affect social media addiction. Motives have been proposed as key elements in the development of addictive behaviour (Chen et al., 2017). More specifically, a framework of motives for the study has been developed using the two dimensions of social media use types, i.e., extrinsic and intrinsic motives. Prior studies have shown that motivations in these two dimensions lead to technology addiction (Cooper, 1994; Hormes, 2016).

Although we predicted that the Big Five personality traits would be associated with social media addiction, we also predicted that this association would be stronger for those who have strong motivation to use social media than for those who have poor drive.

As previously indicated, researchers have distinguished between intrinsic motivation and extrinsic motivation. Indeed, as social media use requires high levels of vigor, focus, and willingness, both intrinsic and extrinsic motivation have significant implications. We advanced the notion that intrinsic and extrinsic motivation provide a stage or state in which people can behave in accordance with their own particular preferences based on their Big Five Personality characteristics, in addition to their main effects on social media addiction. For instance, the positive effect of openness to experience on social media addiction may not be manifest when the person is not interested in using social media extensively without appropriate use motives, openness does not enhance an individual's addictive tendencies towards media. If it is so, social media use motives (either intrinsic or extrinsic) may create the situation in which an individual's trait of openness to experience can be stimulated to enhance his/her social media use. Without the right use motive, openness loses its value in fostering a person's media addiction. An individual's openness may be engaged to enhance their use of social media in this situation due to social media use motives, either intrinsic or extrinsic.

Overall, it can be assumed that depending on an individual's level of motivation for use, the association between the Big Five Personality traits and social media addiction may be strengthened either by the influence of extrinsic motives or intrinsic motives. While both intrinsic and extrinsic motives can lead to social media addiction, it is possible that extrinsic motives may have a stronger influence on

relationship between personality traits and social media addiction due to their focus on external outcome and characteristics of being more tangible. For example, receiving likes or comments on a social media post can provide a quick hit of validation and recognition, which can be highly gratified (Cao et al., 2020).

The relationship between personality traits and social media addiction may be more strongly influenced by extrinsic motivation due to its virtuous circle. When someone receives external recognition, i.e., social media platforms provide a venue for individuals to present a curated version of themselves to a larger audience. This may lead to keep checking and maintaining one's image on these platforms. It reinforces their behavior and drives them to stay active on social media with the hope of receiving positive feedback, validation, and social rewards (Bowden-Green et al., 2020).

So based on above mentioned theoretical consideration the following moderation hypotheses were proposed:

H3: Social media use motives type (extrinsic and intrinsic) will moderate the relationship between Big Five Personality Traits and social media addiction. So hypotheses 3 posits that:

H3a: Motives type (extrinsic and intrinsic) will moderate the relationship between extraversion and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3b: Motives types (extrinsic and intrinsic) will moderate the relationship between conscientiousness and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3c: Motives types (extrinsic and intrinsic) will moderate the relationship between neuroticism and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3d: Motives types (extrinsic and intrinsic) will moderate the relationship between agreeableness and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3e: Motives types (extrinsic and intrinsic) will moderate the relationship between openness to experience and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

Extending this line of research, the current study has made an attempt to explain how social media use motivations can act as a moderator in the association between personality traits and social media addiction, raising awareness of the problem.

Chapter 3

METHODOLOGY

The present study applied quantitative analysis and employed survey research method. In a single survey, the researchers frequently carry out a variety of tasks, including variable measurement and hypothesis testing. Survey techniques are frequently used to investigate audience behaviours and views concerning any trend, programme preferences, or purchasing patterns (De Vans, 2002). The steps involved in data collection and sample selection are given below, followed by an explanation of the tools used to measure the study's relevant variables.

3.1 Research Design

One of the key components of conducting research is the research design, which serves as a framework for the study leading from the first research questions to a number of results (Bazeley, 2017). The research design of any study organizes the entire research process so that the data gathered for the study may answer the pertinent research questions convincingly and conclusively of an intended research. Research design is a logical issue for a specific study, not a logistical one. Any study's research design makes sure that all the relevant concepts are essentially covered in order to collect the data required for all the chosen variables and to ensure that all the hypotheses are tested with validity.

3.2 Cross Sectional Survey Method

When a study employs the survey method as the primary research approach, it means that the researcher intends to collect data from a sample of participants using a structured questionnaire or survey instrument. The survey method allows for the

systematic gathering of information about individuals' opinions, attitudes, behaviors, or characteristics. By using the survey method, researchers can collect a large amount of data efficiently and relatively quickly. Surveys are often conducted with the aim of generalizing findings to a larger population. They provide an opportunity to obtain quantitative data that can be analyzed statistically, allowing researchers to identify patterns, associations, or correlations among variables of interest. Researchers can employ various statistical techniques to analyze the survey data, such as descriptive statistics, inferential statistics, correlation analysis, or regression analysis.

The current study used a cross-sectional survey method (self-administered) in which the necessary information was acquired at a single point in time (De Vaus, 2002). In a cross-sectional study, researchers gather information from participants or subjects at a specific moment or within a short timeframe. This design allows researchers to examine the relationship or prevalence of variables of interest at that specific time point. For both descriptive and explanatory studies, the cross-sectional survey approach is often regarded as a more suitable study strategy. The method makes sure that the link between variables may be clearly defined and that it is simple to record the distribution of variables in population studies. Using cross-sectional studies, researchers can compare group differences and collect data from a sizeable number of people.

3.3 Research Model

Present study is an exploratory study. Keeping in view the significance of the study and hypotheses presented earlier, the present study specifically explored:

- i. The direct relationships between Big Five personality traits (independent Variables) and social media addiction (dependent variables).

- ii. The effects of moderators (extrinsic motives and intrinsic motives of social media use) that could help state and specify the nature of influences on the relationship between independent and dependent variable, after controlling the potential influence of demographic variables, namely gender, age, education and monthly family income.
- iii. The study also determined the level of addiction among university students, and,
- iv. Revealed the gender of the more addicted students.

Figure 3.1

Conceptual Model

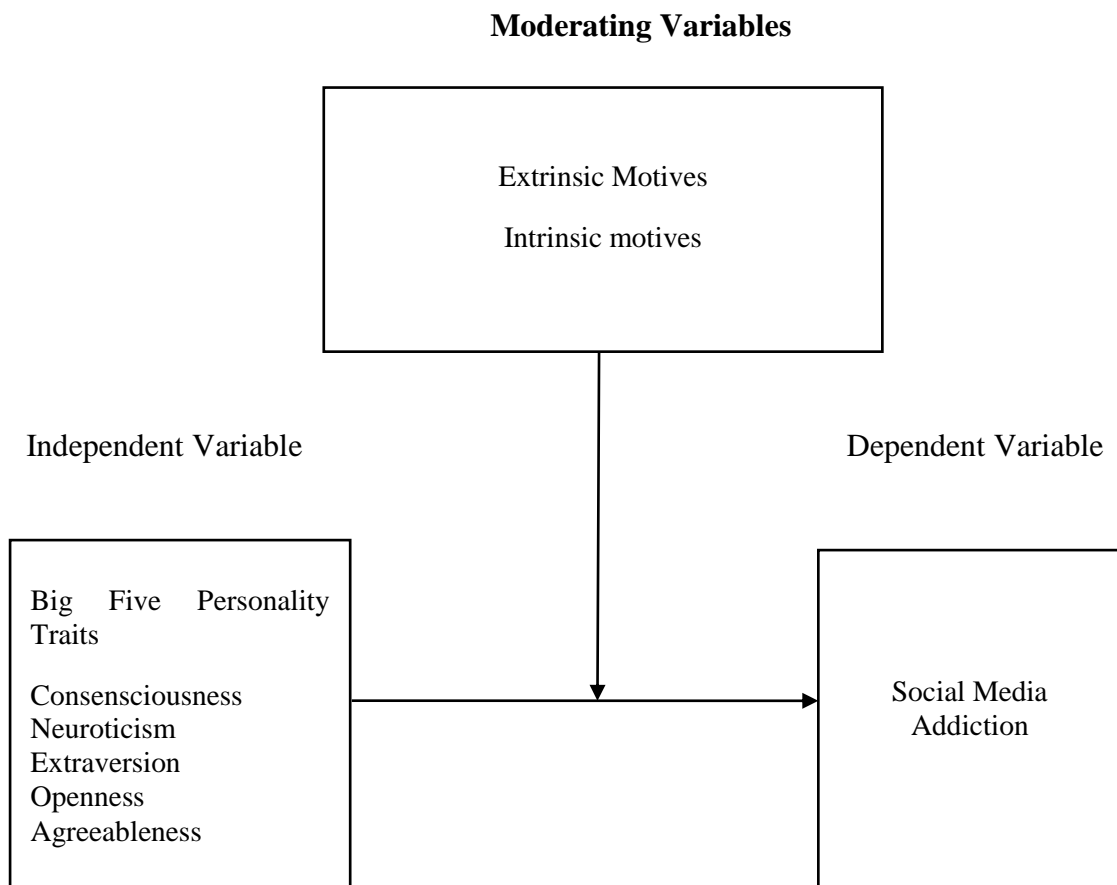
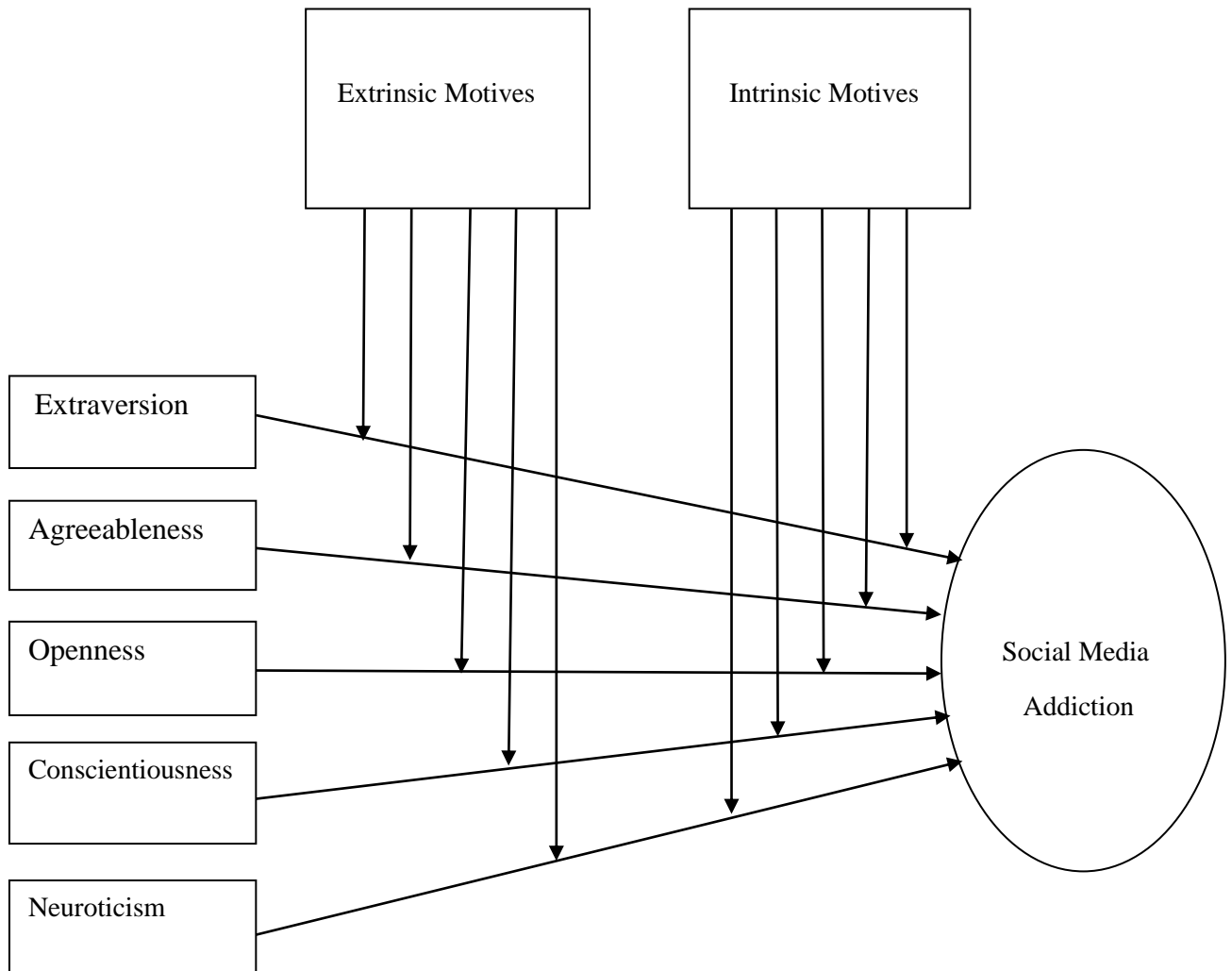


Figure 3.2

Hypothetical Model



3.4 Population of the Study

The study population consisted of university students enrolled during the academic year 2019/2020. The university students have been chosen as the representative of young generation. According to research by Arnett (2000) and Kuss (2013), the younger generation, including university students, are particularly susceptible to online dangers due to their developmental stage, psychological and Sociological changes, impulsive decision-making, and a lack of direction.

The demographic of university students was deemed suitable for this research based on the criteria required. The university students represent the youth demographic more so than any other segment of society and are therefore potentially more susceptible to the impact of social media content. University students were selected as the study population due to several factors, including their high frequency of social media usage, limited exposure to real-life experiences, and underdeveloped reasoning skills. Additionally, practical considerations such as financial constraints and scheduling limitations also played a role in the selection of university students as the study population.

3.5 Sample Size and Sampling Procedure

From probability sampling, multistage cluster sampling technique was employed to get the data for the study. When a sampling frame is not easily accessible, this technique is helpful for selecting a sample from a large population since they are time- and money-efficient. The population were divided into clusters that are: University, Faculty, Departments and the Degree level (PHD, MS and BS). BS, MPhil/MS and PhD level students enrolled in several departments of both the universities made-up the sample in the year 2019-2020. Using multistage cluster sampling techniques a sample was drawn from the estimated population of 25,000 students. The researcher first gathered listing of all the departments and their enrolled students batches from admission branch of both the universities. The cluster were formed as follows:

Stage I: Selection of Universities

Two public universities International Islamic university Islamabad and National University of Modern Languages Islamabad were selected by using simple

random sampling technique from the list of all public universities of capital city of Islamabad.

Stage II: Selection of Faculties

Within each selected university, a random sample of faculties is chosen to represent the university's different academic disciplines. Four faculty groups were formed, each consisting of three faculties. To select one faculty member from each group, a simple random technique was employed. In this way following four faculties were selected:

- a. Engineering and Information Technology
- b. Social Sciences
- c. Management Sciences
- d. Languages

Stage 3: Selection of Departments

Within each selected faculty, a random sample of departments is chosen to represent the specific fields of study.

- i. Engineering and Computer Sciences from the Faculty of Engineering and Information Technology
- ii. Media Studies and Psychology from Social Sciences
- iii. Business Administration and Economics from Management Sciences
- iv. Urdu and English Languages from the Faculty of Languages

Stage IV: Selection of Semesters

Within each selected department, a random sample of semesters is chosen to represent the various stages of the academic program. In the process BS, MS/MPhil

and Ph.D. batches were selected. From BS the senior classes BS 7th and BS 8th were selected while for MS and Ph.D. all students were included as they were less in number.

Stage V: Selection of Students

Finally, within each selected semester, a random sample of students was chosen to participate in the study. The students were selected by using systematic random sampling, in this technique every other student was selected for the distribution of the questionnaire. While for the classes where the number of students was high every third student was selected. Systematic random sampling ensures that each student in the class has an equal chance of being selected. This helps to achieve fairness and representativeness in the sample, as every student has an equal opportunity to be included. Total 520 sample were selected from male and female students allowing 5% sample error.

Table 3.1

Multistage Cluster Sampling – National University of Modern Languages, Islamabad

Faculty	Selected Department	Degree Level	Total Population	Total No. of Respondents	Percentage of Respondents
Engineering & Information Technology	Engineering & Comp. Science	BS, MS/MPhil, PhD	2,125	57	2.68
Social Sciences	Mass Comm. & Psychology	BS, MS/MPhil, PhD	4,519	78	1.73
Management Sciences	Business Administration & Economics	BS, MS/MPhil, PhD	4,418	65	1.48
Languages	English & Urdu	BS, MS/MPhil, PhD	4,286	75	1.75
Total			15,348	275	7.64

Table 3.2*Multistage Cluster Sampling – International Islamic University, Islamabad*

Faculty	Selected Department	Degree Level	Total Population	Total No. of Respondents	Percentage of Respondents
Engineering & Information Technology	Engineering Comp. Science	BS, MS/MPhil, PhD	1569	41	2.62
Social Sciences	Mass Comm. Psychology	BS, MS/MPhil, PhD	4,876	61	1.25
Management Sciences	Business Administration Economics	BS, MS/MPhil, PhD	2,450	52	2.12
Languages	English Urdu	BS, MS/MPhil, PhD	1,453	63	4.34
Total			10,348	217	10.33

The researcher thoroughly briefed the respondents before giving out the questionnaire and oversaw the entire data collection process. It was chosen to use a self-administered data collection method and collect responses in person to reduce the probability that inaccurate or blind responses would have an influence. The researcher thoroughly briefed the participants before distributing the questionnaire and supervised the entire data collection process. To minimize the chance of inaccurate or biased responses, a self-administered data collection method was chosen and the responses were collected in person.

3.6 Instrumentation

A self-administrated questionnaire was created and used to collect data in order to get the needed information on the study's construct. The questionnaire was broken up into four parts: the first part asked questions about demographics, second part contained questionnaire regarding predictor variable, i.e., Big Five Personality

Traits and third part asked questions about criterion variable, i.e., social media addiction while fourth and last part was comprised of questions about moderating variables, i.e., extrinsic and intrinsic motives of social media use.

3.7 Pre-Testing

In the study, two well-established and validated scales, the Big Five Inventory (BFI) for measuring personality traits and the Bergen Social Media Addiction Scale (BSMAS) for assessing social media addiction, were utilized with slight modifications. These scales have been extensively tested and are widely recognized in the field.

3.8 The Validation Process of BFI and BSMAS

The validation process of the scale involved several phases. Firstly, the language of all 44 items of the BFI were examined carefully, there were some items which contained idiomatic expression. So researcher simplify the language to make it easily understandable. For example researcher changed ‘feel blue’ to ‘feel depressed’. Some items needed to be modified to correspond to the cultural environment and local setup. Same process was repeated for BSMAS to check the validity of the scale. The language of few items were rephrased to suit the understanding of the students. As BSMAS is a short scale it is very important for the participants to fully comprehend the items before they self-report the scale. So that researcher can measure what she actually intended to measure. The language experts and Psychology professor examined the modified version of the scales to ensure accuracy and appropriateness of the scale so that original items did not lose the essence.

3.9 Scale Development for Social Media Use Motives

For measuring social media use motives, extrinsic motives and intrinsic motive scales were developed by researcher. Extrinsic scale was consisted of 14 items and intrinsic scale was comprised of 13 items initially. However, during the factor analysis process conducted to assess the scale's validity, two items from extrinsic scale and one item from intrinsic scale were identified as redundant and subsequently eliminated from the scales. As a result, the final scale consisted of 12 items for each dimension was finalized.

The instrument was subsequently pretested twice on a similar set of university students in order to assess the items' effectiveness in gathering the desired data, gauge respondents' comprehension of the questions/items, and estimate the time needed to complete all four portions of the questionnaires. There are various methods of pretesting like focus groups, expert review, pilot testing and online testing. In this research work pilot study has been conducted.

3.10 Pilot Testing

Pilot testing involves administering the survey to a small sample of participants similar to the target population. The goal of pilot testing is to assess the feasibility of the survey administration process, identify potential problems with data collection procedures, and estimate the time and resources needed to conduct the survey. In first pilot testing 50 university students were tested in pilot study and the problems were identified with the questionnaire. For example, wording of the questions were converted according to the common understanding of the students keeping in view their level of understanding, comprehension of English language and cultural aspects. The second pilot study was conducted with 35 students.

A second pretest may be necessary to assess the effectiveness of these changes. This can help ensure that the changes made have addressed the issues identified in the first pretest. A second pretest can help estimate the reliability of the survey by assessing the consistency of responses to the same questions over time. This can help ensure that the survey is measuring what it is intended to measure. The two pilot study participants weren't a part of the final sample. As a result of the 2nd pilot study's findings, changes were eventually made to the final instrument, to make sure the included adjustments were adequate and the instrument was ready for usage. The Cronbach alpha reliability test, which gauges an index's internal consistency, typically fell between 0.7 and 0.9.

3.11 Reliability of Pretests

Table 3.3

Big Five Personality Traits

Personality Traits	Reliability Pretest 1	Reliability Pretest 2
Neuroticism	$\alpha=0.73$	$\alpha=0.80$
Extraversion	$\alpha=0.80$	$\alpha=0.85$
Openness	$\alpha=0.70$	$\alpha=0.75$
Agreeableness	$\alpha=0.79$	$\alpha=0.83$
Conscientiousness	$\alpha=0.75$	$\alpha=0.80$

Table 3.4

Social Media Addiction

SMA	Reliability Pretest 1	Reliability Pretest 2
Social Media Addiction	$\alpha=0.74$	$\alpha=0.80$

Table 3.5*Use Motives*

Use Motives	Reliability Pretest 1	Reliability Pretest 2
Extrinsic Motives	$\alpha=0.77$	$\alpha=0.84$
Intrinsic Motives	$\alpha=0.80$	$\alpha=0.87$

Table 3.6*Extrinsic Motives*

Extrinsic Motives	Reliability Pretest 1	Reliability Pretest 2
Information Sharing	$\alpha=0.87$	$\alpha=0.89$
Social Interaction	$\alpha=0.82$	$\alpha=0.86$
Self Presentation	$\alpha=0.77$	$\alpha=0.87$

Table 3.7*Intrinsic Motives*

Intrinsic Motives	Reliability Pretest 1	Reliability Pretest 2
Entertainment	$\alpha=0.70$	$\alpha=0.89$
Pass time	$\alpha=0.83$	$\alpha=0.88$
Escapism	$\alpha=0.81$	$\alpha=0.84$

3.12 The Reliability Test of the Scales

The reliability of Big Five Inventory's all five components as measured by the Cronbach alpha coefficient, was ($\alpha=0.80$) for agreeableness, ($\alpha=0.85$) for extraversion ($\alpha=0.75$) for conscientiousness ($\alpha=0.80$) for neuroticism and ($\alpha=0.78$) for openness to experience. The coefficient of BSMAS was found to be ($\alpha=0.89$) during the pilot test while coefficient alpha of original scale found to be 0.90 in the actual study, indicating high reliability of the adapted scale. The result showed that the scales

demonstrated good internal consistency, with the items consistently measuring the same underlying construct.

The reliability of the extrinsic and intrinsic scales were evaluated using Cronbach's alpha, a measure of internal consistency. The calculated Cronbach's alpha reliability of extrinsic and intrinsic motives were ($\alpha=0.85$) and ($\alpha=0.82$) respectively. Internal consistency for all subscales are: information sharing ($\alpha=0.86$), social interaction ($\alpha=0.88$), self-impression ($\alpha=0.80$), entertainment ($\alpha=0.85$), pass time ($\alpha=0.81$), escapism ($\alpha=0.84$). These results confirmed that the questionnaire was suitable for data collection and ready for implementation in the main study.

Table 3.8

Big Five Personality Traits

Personality Traits	Reliability
Neuroticism	$\alpha=0.80$
Extraversion	$\alpha=0.85$
Openness	$\alpha=0.78$
Agreeableness	$\alpha=0.80$
Conscientiousness	$\alpha=0.75$

Table 3.9

Social Media Addiction

SMA	Reliability
BSMAS	$\alpha=0.89$

Table 3.10*Use Motives*

Motives	Reliability
Extrinsic Motives	$\alpha=0.85$
Intrinsic Motives	$\alpha=0.82$

Table 3.11*Extrinsic Motives*

Extrinsic Motives	Reliability
Information Sharing	$\alpha=0.86$
Social Interaction	$\alpha=0.88$
Self Presentation	$\alpha=0.80$

Table 3.12*Intrinsic Motives*

Intrinsic Motives	Reliability
Entertainment	$\alpha=0.85$
Pass time	$\alpha=0.81$
Escapism	$\alpha=0.84$

3.13 Data Collection

The final questionnaire, which incorporated changes based on the recommendations from two pilot studies, was used to gather data. The questionnaire was distributed among students at the Bachelors, Masters, and Ph.D. levels. The researcher selected every other student present in each class at the time of her visit and conducted the survey as she moved from class to class.

Before administering the questionnaires to the selected class respondents, the researcher thoroughly reviewed the instructions with them and provided a clear

explanation. The students were assured that their answers would remain anonymous. The researcher collected the completed questionnaires, discarding any that were incomplete or had missing data. A total of 520 questionnaires were distributed among male and female respondents from both universities. The data collection process was completed within a two-week period in January 2020. Thank God the researcher had managed to collect data before the pandemic of Covid-19 emerged in Pakistan. The first case was reported in Pakistan on 26th February 2020 (Ali, 2020) and consequently, the classes of universities were shifted online.

The response rate was high, with 509 of the 520 questionnaires distributed being returned from both universities. Out of the 230 questionnaires distributed to male respondents, 223 were returned, while 286 out of the 290 questionnaires given to female respondents were returned. After excluding 17 incomplete or missing data responses, a total of 492 valid responses were collected, consisting of 211 (43%) male respondents and 281 (57%) female respondents from both IIUI and NUML universities.

3.14 Variables

Following variables were conceptually and operationally defined for the study:

- Big Five Personality Traits or Five Factor Model (FFM) (Independent variable) (Openness to experience, Agreeableness, Conscientious, Extroversion, Neuroticism)
- Social Media Addiction (Dependent Variable)
- Social media Use Motives, Intrinsic and extrinsic (Moderating Variables)
- Extrinsic Use Motives (Information sharing, Social Interaction, Self-Presentation)

- Intrinsic Use Motives (Entertainment, Diversion/Escapism, Pass time)

In this study only social networking sites (Facebook, Instagram, Snap Chat, YouTube etc.) have been taken as social media and that was explained to the students before distributing the questionnaire.

3.15 Big Five Personality Traits

3.15.1 Conceptual Definitions

Personality can be described as a “dynamic system that generates characteristic patterns of behavior, thoughts, and emotions in an individual.” This definition was given by Allport in 1961. Personality traits have been defined as “dimensions of individual variances in dispositions to reveal dependable patterns of thoughts, feelings, and actions” (McCrae & Costa, 1990, p. 23). Personality is considered to result from a blend of an individual’s inherent qualities (nature) and the environmental factors that shape their experiences (nurture) (Funder, 1997; Watson, 1989).

Overall, personality can be defined as a unique set of characteristic patterns of thoughts, emotions, and behaviors that distinguishes an individual from others and remains relatively stable over time and across different situations. Personality is a complex construct that encompasses a wide range of psychological traits, including cognitive, affective, and behavioral components. It includes a person’s tendencies to think, feel, and behave in particular ways that are relatively consistent across different contexts.

The study has used Big Five Inventory (BFI) which is based on FFM (Five Factor Model). According to Costa and McCrae (1992), the Five Factor Model (FFM)

of personality is considered to be the most comprehensive model in the field of personality study to date. The Big Five Inventory (BFI) is a well-known psychological assessment tool used to measure the five broad dimensions of personality: openness, conscientiousness, extraversion, agreeableness, and neuroticism

The BFI was originally developed by Oliver P. John, Laura Naumann, and Christopher J. Soto, who published the original version of the inventory in 1991. Their aim was to create a concise and reliable measure of the Big Five traits that could be used in various research studies and practical applications. Later on, other researchers also worked on it. Present study has used (BFI) developed by two prominent personality psychologists named Oliver P. John and Sanjay Srivastava in 1999 (John & Srivastava, 1999). Since its development, the BFI has become one of the most widely used personality inventories in psychology. It consists of 44 statements that individuals rate on a Likert scale, indicating the extent to which they agree or disagree with each statement.

The five personality factors described by FFM are:

- i. Openness to Experience
- ii. Agreeableness
- iii. Conscientiousness
- iv. Extroversion
- v. Neuroticism

These five factors have been conceptually defined as follows:

i. Openness to Experience

People with high openness to experience are inquisitive, open to new things, and complicated. While those with low openness to experience are conventional and unimaginative.

ii. Agreeableness

High agreeableness personality traits include warmth, cooperation and sympathy. While people low in agreeableness are unaccommodating, critical and combative.

iii. Conscientiousness

Conscientiousness is the tendency to show responsibility, organization, diligence, direction towards specific goals, and compliance with norms and regulations. Conscientiousness measures dependability and discipline, while individuals who perform poorly are unreliable, careless and chaotic.

iv. Extraversion

Extraverts are frequently outgoing, social, talkative and passionate, whereas introverts are more likely to be quiet, not so social and reserved.

v. Neuroticism

A high neuroticism personality is anxious, easily agitated, and emotionally upset, whereas a low neuroticism personality is calm, emotionally robust, and stable.

3.15.2 Operational Definitions

i. Openness to Experience

a. High Openness to Experience

- **Intellectual Curiosity:** High openness to experience can be operationalized by assessing an individual's intellectual curiosity and interest in acquiring knowledge. This may involve measuring behaviors such as a desire for learning, engaging in intellectual pursuits, seeking out new ideas and information, and being open to exploring different perspectives.
- **Aesthetic Sensitivity:** Another operational definition of high openness to experience can focus on an individual's appreciation for aesthetic experiences. This may involve evaluating behaviors such as a keen interest in the arts, music, literature, or other forms of creative expression, and a propensity to engage in activities that stimulate the senses and evoke emotions.
- **Creativity and Imagination:** High openness to experience can be operationalized by assessing an individual's creativity and imagination. This can lead to unique ideas, innovative solutions, and artistic expressions. These traits allow individuals to think beyond the boundaries of what is known or conventional. This may involve assessing behaviors such as the ability to generate unique and diverse ideas and vividly visualize mental images, cognitive capacity to mentally create or simulate experiences, ideas, or situations that are not present in the immediate environment.
- **Adventurousness and Novelty Seeking:** Operationalizing high openness to experience can include examining an individual's propensity for adventurousness and seeking out novel experiences. This may involve assessing behaviors such as a willingness to explore new environments,

engage in unconventional activities, and take risks in pursuit of new and exciting experiences.

b. Low Openness to Experience

- **Resistance to Change and Preference for Routine Work:** Low openness to experience can be operationalized by assessing an individual's resistance to change and preference for familiarity. This may involve measuring behaviors such as a reluctance to try new things, a preference for routine work and places and predictability, and discomfort or aversion towards novel experiences.
- **Disinterest in Intellectual Pursuits:** Another operational definition of low openness to experience can focus on an individual's lack of interest in intellectual or creative pursuits. This may involve evaluating behaviors such as a disinterest in reading, a lack of engagement with art, music, or literature, and a reduced inclination to seek out new knowledge or ideas.
- **Preference for Traditional or Conventional Values:** Low openness to experience can also be operationalized by assessing an individual's adherence to traditional or conventional values and beliefs. This may involve measuring behaviors such as a preference for conformity, a resistance to unconventional ideas or lifestyles, and a tendency to adhere to established norms and practices.
- **Avoidance of Novelty and Risk:** Operationalizing low openness to experience can include examining an individual's avoidance of novelty and risk-taking behavior. This may involve assessing behaviors such as a preference for familiar environments and activities, a reluctance to explore

new places or engage in adventurous pursuits, and a cautious approach to new experiences.

ii. Agreeableness

a. High Agreeableness

- **Trust Worthiness and Reliability:** High agreeableness can be operationalized by assessing an individual's tendency to be trust worthy person, upon whom people can trust. This may involve measuring behaviors such as reliability, honesty and integrity in their actions, words, and behavior.
- **Forgiving Nature:** High agreeableness can also be operationalized by assessing an individual's forgiving nature and his capacity to release resentment, anger, or bitterness towards others who have caused him harm or have wronged him in some way. This may involve measuring his willingness to let go of negative emotions and grudges, choosing to move forward with a mindset of understanding, empathy, and compassion.
- **Cooperativeness and Teamwork:** High agreeableness can be operationalized by assessing an individual's tendency to be cooperative and supportive in social interactions. This may involve measuring behaviors such as willingness to collaborate, compromise, and work harmoniously with others towards common goals.
- **Empathy and Compassion:** Another operational definition of high agreeableness can focus on an individual's capacity for empathy and compassion. This may involve evaluating their ability to understand and share the feelings of others, display kindness and concern, and offer support and assistance to those in need.

- **Conflict Avoidance:** High agreeableness can also be operationalized by assessing an individual's aversion to conflict. This may involve measuring behaviors such as a tendency to avoid confrontations, prioritize harmony, and seek peaceful resolutions in interpersonal situations.
- **Agreeable Communication Style:** Operationalizing high agreeableness can include examining an individual's communication style. This may involve assessing behaviors such as using polite and respectful language, actively listening to others, and expressing opinions in a non-confrontational manner.

b. Low Agreeableness

- **Lack of Empathy or Concern for Others:** Another operational definition of low agreeableness can focus on an individual's reduced capacity for empathy and concern for others. This may involve evaluating behaviors such as a lack of understanding or indifference towards the feelings and needs of others, and a reduced inclination to offer support or assistance.
- **Confrontational Communication Style:** Low agreeableness can also be operationalized by examining an individual's communication style. This may involve assessing behaviors such as using direct and confrontational language, interrupting or dismissing others' viewpoints, and displaying a lack of consideration for others' perspectives.
- **Assertion and Disagreeableness:** Low agreeableness can be operationalized by assessing an individual's tendency to assert their own interests and opinions even at the expense of others. This may involve measuring behaviors such as a willingness to confront or challenge others, prioritize personal gain over cooperation, and display a contentious or argumentative communication

style. willingness to express one's own opinions, criticize and find fault with others.

- **Hostility and Antagonism:** Low agreeableness can also be operationalized by examining an individual's tendency to display hostility and antagonism in social interactions. This may involve measuring behaviors such as frequent arguments or conflicts, a quick temper, and a disposition to be critical or irritable towards others.
- **Non-Cooperativeness Behavior:** Operationalizing low agreeableness can include assessing an individual's non-cooperative behaviors. This may involve measuring behaviors such as a reluctance to collaborate, unwillingness to help others.

iii. Conscientiousness

a. High Conscientiousness

- **Orderliness and Organization:** High conscientiousness can be operationalized by assessing an individual's tendency to be organized, orderly, and methodical in their approach to tasks and responsibilities. This may involve measuring behaviors such as keeping a neat and tidy environment, maintaining structured routines, and adhering to schedules.
- **Goal-Directed Behavior:** Another operational definition of high conscientiousness can focus on an individual's commitment to setting and pursuing goals. This may involve evaluating their ability to plan ahead, prioritize tasks, and consistently work towards achieving objectives, even in the face of obstacles or distractions.
- **Responsibility and Dependability:** High conscientiousness can also be operationalized by assessing an individual's sense of responsibility and

dependability. This may involve measuring behaviors such as fulfilling commitments, meeting deadlines, and taking ownership of one's actions and obligations.

- **Perseverance and Achievement Orientation:** Operationalizing high conscientiousness can include examining an individual's perseverance and orientation towards achievement. This may involve assessing their ability to stay focused, work diligently, and maintain motivation and effort to accomplish tasks and attain desired outcomes.

b. Low Conscientiousness

- **Disorganization and Lack of Structure:** Low conscientiousness can be operationalized by assessing an individual's tendency to be disorganized and lacking in structure. This may involve measuring behaviors such as difficulty in maintaining an organized environment, inconsistency in following routines, and a lack of adherence to schedules.
- **Procrastination and Lack of Goal-Directed Behavior:** Another operational definition of low conscientiousness can focus on an individual's tendency to procrastinate and exhibit a lack of goal-directed behavior. This may involve evaluating behaviors such as laziness, delaying tasks, difficulty in setting and pursuing long-term goals, and a lack of motivation to achieve objectives.
- **Unreliability and Lack of Responsibility:** Low conscientiousness can also be operationalized by assessing an individual's unreliability and lack of responsibility. This may involve measuring behaviors such as failing to fulfill commitments, missing deadlines, and displaying a lack of accountability for one's actions and obligations.

- **Lack of Perseverance and Achievement Orientation:** Operationalizing low conscientiousness can include examining an individual's lack of perseverance and orientation towards achievement. This may involve assessing behaviors such as giving up easily when faced with challenges, lack of sustained effort, and a reduced motivation to accomplish tasks or attain desired outcomes.

iv. **Extraversion**

a. **High Extraversion**

- **Sociability and Interpersonal Engagement:** High extraversion can be operationalized by assessing an individual's level of sociability and engagement in social interactions. This may involve measuring behaviors such as frequent socializing, enjoyment of social gatherings, and a tendency to seek out the company of others.
- **Talkativeness and Expressiveness:** Another operational definition of high extraversion can focus on an individual's talkativeness and expressiveness. This may involve evaluating behaviors such as a propensity for engaging in conversations, being outgoing in expressing thoughts and feelings, and a preference for verbal communication.
- **Energy and Enthusiasm:** High extraversion can also be operationalized by assessing an individual's energy level and enthusiasm in social situations. This may involve measuring behaviors such as being lively and energetic in group settings, displaying enthusiasm and positive emotions, and a preference for active and stimulating environments.
- **Comfort in the Spotlight:** Operationalizing high extraversion can include examining an individual's comfort level in the spotlight and willingness to take on leadership roles. This may involve assessing behaviors such as being

comfortable with public speaking, enjoying being the center of attention, and a tendency to take charge in group settings.

b. Low Extroversion

- **Introversion and Reserved Behavior:** Low extraversion can be operationalized by assessing an individual's introverted tendencies and preference for solitude or quiet environments. This may involve measuring behaviors such as a preference for alone time, limited engagement in social interactions, and a need for personal space and privacy.
- **Reserved and Quiet Communication Style:** Another operational definition of low extraversion can focus on an individual's reserved and quiet communication style. This may involve evaluating behaviors such as a tendency to listen more than speak, less inclination to engage in extensive verbal communication and a reserved or understated expression of thoughts and emotions.
- **Low Need for Stimulation:** Low extraversion can also be operationalized by assessing an individual's low need for external stimulation or arousal. This may involve measuring behaviors such as a preference for calm and peaceful environments, lower engagement in activities that require high levels of social interaction or excitement, and a tendency to seek out solitary or low-stimulus activities.
- **Discomfort in the Spotlight:** Operationalizing low extraversion can include examining an individual's discomfort in the spotlight and aversion to being the center of attention. This may involve assessing behaviors such as shy or inhibited behavior, avoiding public speaking or performances, feeling

uncomfortable in large social gatherings, and a preference for observing rather than actively participating in social situations.

v. **Neuroticism**

a. **High Neuroticism**

- **Emotional Instability:** High neuroticism can be operationalized by assessing an individual's emotional instability and tendency to experience negative emotions. This may involve measuring behaviors such as frequent mood swings, heightened sensitivity to stress or criticism, and a propensity to worry or ruminate over negative events or situations.
- **Anxiety and Nervousness:** Another operational definition of high neuroticism can focus on an individual's anxiety and nervousness. This may involve evaluating behaviors such as frequent feelings of anxiety or fear, excessive worrying, and a tendency to perceive situations as threatening or dangerous.
- **Depression and Sadness:** High neuroticism can also be operationalized by assessing a person's depression and sadness. People often describe feeling 'blue' as a way to express their emotional state when they are experiencing sadness, melancholy, or a general sense of being down.
- **Moodiness and Irritability:** High neuroticism can also be operationalized by assessing an individual's moodiness and irritability. This may involve measuring behaviors such as frequent irritability or outbursts of anger, difficulty in controlling emotions, and a general tendency to experience negative affect.
- **Hypersensitivity to Stress:** Operationalizing high neuroticism can include examining an individual's hypersensitivity to stress and their physiological and psychological responses to stressful situations. This may involve

measuring behaviors such as a heightened physiological response (e.g., increased heart rate, sweating) to stressors, a tendency to perceive everyday situations as highly stressful, and difficulty in coping with stress.

b. Low Neuroticism

- **Emotional Stability:** Low neuroticism can be operationalized by assessing an individual's emotional stability. This may involve measuring the frequency and intensity of positive emotions experienced, such as calmness, contentment, and emotional resilience in the face of stressors.
- **Emotional Resilience:** Another operational definition of low neuroticism can focus on an individual's ability to bounce back from setbacks or negative events. This may involve evaluating their capacity to maintain a positive emotional state and cope effectively with stress or adversity.
- **Reduced Negative Emotions:** Low neuroticism can also be operationalized by assessing the absence or reduced intensity of negative emotions. This may involve measuring the frequency and intensity of anxiety, depression, irritability, or mood swings, and observing a lower prevalence or severity of these emotions.
- **Emotional Control:** Operationalizing low neuroticism can include examining an individual's ability to regulate their emotions. This may involve assessing their capacity to manage and control negative emotions, avoid excessive worry or rumination, and maintain emotional equilibrium even in challenging situations.
- **Cope Effectively with Stressors:** Low neuroticism can also be operationalized by assessing an individual's adaptability and flexibility in dealing with life's challenges. This may involve measuring ability to cope

effectively with stressors, and a tendency to approach situations with a calm and rational mindset.

3.16 Social Media Addiction

Andreassen and Pallesen (2012) defined social media addiction as “being overly concerned about social networking sites, to be driven by a strong motivation to log on to or use social networking sites, and to devote so much time and effort to social networking sites that it impairs other social activities, studies/job, interpersonal relationships, and/or psychological health and well-being.”

Overall, social media addiction can be defined as non-chemical and intoxicating compulsive behavior. It is a process of excessive usage of social networking sites like Facebook, Twitter, Instagram, Snapchat and YouTube to the extent that it interferes with an individual's daily life, relationships, education/job etc. It is characterized by recurrent and persistent urge to use social media. A person experiences anxiety or distress when unable to use social media and feels relaxed and relieved when restored back to the use of social media platforms.

3.16.1 Conceptual Definitions

The conceptual definition of social media addiction is based on Griffith's model of behavioral addiction (2005) because in the current study the Bergen Social Media Addiction Scale (Andreassen, 2016) was selected to measure social media addiction and all components of the scales are the same as the model given by Griffith (2005). According to Griffith (2005), social media addiction is a type of behavioral addiction and all types of behavioral addictions come under the following six components including social media:

- i. Salience
- ii. Tolerance
- iii. Mood Modification
- iv. Withdrawal
- v. Conflict
- vi. Relapse

So social media addiction can conceptually be defined as: compulsive and excessive engagement with social media platforms that leads to negative consequences in various aspects of an individual's life. It involves a pattern of behavior where the individual experiences a loss of control over their social media use, continues to engage with it despite negative outcomes, and exhibits symptoms of dependence or withdrawal when unable to access social media.

According to Griffith's model (2005), social media addiction can be understood through following six components:

- i. Salience (preoccupation, using social media prevail all thoughts and activities).
- ii. Tolerance (using over time on social media to get desired level of satisfaction again and again).
- iii. Mood Modification (social media activity improves mood, feels good and helps forget about worries and tension).
- iv. Withdrawal (Feels frustrated, agitated or irritated when denied an access to social media).
- v. Relapse (attempts to cut down on use of social media without success).
- vi. Conflict (affects education, job, relations and day to day routine).

3.16.2 Operational Definitions

Operational measures of social media addiction often include assessing behaviors and experiences such as:

i. Salience

Social media becomes the most important activity in the individual's life, dominating their thoughts, feelings, and behaviors. It takes precedence over other responsibilities, interests, or relationships. It can be measured by assessing self-reported experiences of intrusive thoughts about social media and a compelling urge to access and use social media.

ii. Mood Modification

The use of social media improves one's mood, serves as a means to alter one's emotional state, providing a temporary escape, pleasure, or relief from negative emotions or boredom. It becomes a coping mechanism or a source of gratification. It can be operationalized by measuring self-reported motivations for social media use, such as seeking distraction, escape, or emotional support during challenging or distressing situations.

iii. Tolerance

Over time, the individual requires increasing amounts of time spent on social media to achieve the same level of satisfaction or stimulation. They may need to engage with it for longer durations or with greater intensity to experience the desired effects. It can be operationalized by assessing self-reported enhancement in social media usage patterns over time, such as the frequency, duration, or intensity of engagement with social media to get desired gratification.

iv. Withdrawal

When unable to access social media, the individual experiences negative emotions, restlessness, irritability, or anxiety. They may exhibit behaviors such as constantly checking their devices or feeling a strong urge to get back online. It can be operationalized by assessing self-reported symptoms of restlessness, irritability, anxiety, or cravings when attempting to reduce or cease social media usage.

v. Conflict

Social media addiction leads to conflicts in various areas of the individual's life, including relationships like friends, family members, partners, work or job or academic performance, hobbies and day to day life and overall well-being. They may neglect responsibilities, experience deterioration in social interactions, or face negative consequences due to excessive social media use. It can be operationalized by evaluating the impact of social media addiction on academic or work performance, neglect of personal relationships, and reduced engagement in daily activities.

vi. Relapse

Efforts to reduce or control social media usage are often unsuccessful, as the individual relapses into their addictive behaviors, returning to excessive use despite previous attempts to cut back or stop. It can be operationalized by assessing self-reported feelings of loss of control, unsuccessful attempts to reduce usage, or unsuccessful self-imposed restrictions.

3.17 Use Motives

Motivation indicates “energy, direction, persistence, and equifinality, which causes all aspects of activation and intention” (Ryan & Deci, 2000, p. 69). The Uses

and Gratifications theory is a valuable perspective for comprehending the motivation behind media consumption, as it posits that individuals actively choose the means of communication and content they engage with based on their need for fulfillment which they expect to attain from that specific content and that some channels are more adept than others at fulfilling those needs. The Uses and Gratifications theory is particularly well-suited for analyzing social networking sites as it focuses on the significance of digital media in addressing various motives and needs and highlights the active role of the audience in media consumption. The theory posits that users are active audience who choose to use certain media based on their personal motivations and needs, rather than being passive recipients of media messages.

The Uses and Gratifications theory explains why individuals choose certain media and content by focusing on their needs and the fulfillment they expect to derive from it. It emphasizes that people actively select communication channels and engage with specific content based on their personal motivations. This theory is particularly useful for analyzing social networking sites as it recognizes the significance of digital media in addressing various motives and needs. In literature, two types of use motives have been identified, extrinsic motives and intrinsic motives (Ryan & Deci, 2000).

i. Extrinsic Motives

According to Ryan and Deci (2000), extrinsic motives refer to the external factors or rewards that drive individuals to engage in an activity, typically for the purpose of obtaining some external outcome, such as tangible rewards, social approval, or avoidance of punishment. Extrinsic motivation can be defined as when an individual engages in a certain behavior because they believe it will lead to a valuable outcome or reward. But it can also include intangible rewards such as recognition,

praise, or a sense of accomplishment. Intangible rewards, such as praise, can be just as powerful motivators as tangible rewards because they provide a sense of validation and acknowledgement of one's qualities, efforts and achievements. Extrinsic motivation is something that comes or operates from outside and originates from external factors.

ii. Intrinsic Motives

According to Ryan and Deci (2000), intrinsic motives refer to the psychological needs and desires that drive individuals to engage in an activity for its inherent satisfaction and personal enjoyment, rather than external rewards or pressures. These motives arise from an individual's innate curiosity, interests, and the inherent pleasure they derive from the activity itself.

Intrinsic motivation can be defined as actions that are pursued for the inherent enjoyment or satisfaction derived from the activity itself. It comes from within, and the activity reflects the individual's own enjoyment or amusement. It is engaging in an activity because of an interest in the activity itself, rather than being driven by external rewards or incentives. Intrinsic motivation is something that operates from inside and originates from internal factors.

This study has identified three intrinsic, i.e., information sharing, social interaction and self-presentation, and three extrinsic motivation, i.e., entertainment, pass time, escapism or diversion from Uses and Gratification literature.

3.17.1 Conceptual Definitions

i. Extrinsic Motives

a. Information Sharing

According to Davenport and Prusak (1997), information sharing is “voluntary act of making information available to others’ the sharer could pass information on, but does not have to” (p. 5). Bouthillier and Bao (2013) devised information sharing behaviours into three categories, i.e., cooperative/collective, mutually beneficial, and relationship based. People may post information on social networking sites with the aim of working with others to accomplish shared objectives, pursuing educational or informational benefits, or developing relationship with one another.

Information sharing refers to the process of exchanging knowledge, data, or information among individuals, groups, organizations, or systems. It involves the transfer of information from one individual to another individual or group, with the goal of enhancing understanding, decision-making, collaboration, and coordination. Information sharing can occur through various means, such as face-to-face communication, written reports, electronic messages, shared databases, and social media platforms.

b. Social Interaction

Goffman (1959) defined social interaction as the process of individuals exercising reciprocal influence over one another during social encounters. Social interaction demonstrates people’s motivation to communicate with friends and family members, and exchange ideas, collaborate and interact with others (Ko et al., 2005). Park et al. (2009) described that people socialize for a variety of reasons, including

getting to know fascinating people, staying in touch with friends, getting support from peers, and feeling like members of a community (Park et al., 2009).

Social interaction refers to the process by which individuals engage with one another, communicate, and exchange information, ideas, and emotions. It involves a reciprocal exchange of behaviors, gestures, and verbal or non-verbal communication, taking place in various social contexts. Social interaction is an essential aspect of human life and occurs in a wide range of settings, including personal relationships, family interactions, work environments, educational institutions, community gatherings, and online platforms.

c. Self-Presentation

Goffman (1959) defined self-presentation or impression management as the act of attempting to control or influence how others perceive oneself. He argued that it is a kind of performance, in which individuals act out different roles depending on the situation and the audience. He analyzed that people engage in various forms of ‘impression management’ in order to create and maintain a favorable image of themselves in the eyes of others. This might involve using certain language or gestures, dressing a certain way, or adopting particular attitudes or behaviors. Leary and Kowalski (1990) defined self-presentation as the act of attempting to control or influence how others perceive oneself. It entails expressing oneself and acting in a way that leaves the impression one wants to leave. It is a procedure for conveying one’s own image to others and it is essential for the formation of identities.

Self-presentation can conceptually be defined as people have more control over how they present themselves on different platforms as they do in real-life contacts. They are able to selectively provide information of themselves to present a

better self or identity of themselves. Self-presentation is an intentional process by which individuals convey information about themselves to others in order to shape and manage the impression they make. It involves the strategic selection and presentation of information, behaviors, and appearance to create a desired image or impression. Self-presentation can occur in various social contexts, including personal relationships, professional settings, and online platforms.

ii. Intrinsic Motives

a. Entertainment

Entertainment speaks of enjoyment and amusement (Hemmah, 2009). It is one of the intrinsic and self-motivating variables that makes it possible for people to feel joyful and excited when engaging in specific activities even in the absence of an external reward or material gain (Deci & Ryan, 1985). People may use media for entertainment purposes to be diverted from problems, relax, or experience emotional gratification. Entertainment refers to any activity or performance that is intended to provide enjoyment, pleasure, or amusement to an audience. It can take many forms, including written content, music, theater, film, television, games, social media etc. The primary goal of entertainment is to engage the audience and stimulate their emotions, senses, and imagination (Cunningham & Craig, 2019).

b. Pass Time

The term pass time refers to a user's inclination to seek out whenever they have spare time or to generate content when they have nothing else to do. The construct pass time is also called 'Killing the time' (Hoe- Lian Goh et al., 2012). In the context of Uses and Gratifications the theme is defined as using media to occupy the time and to get rid of boredom (Papacharissi & Rubin, 2000). They employed a

concept termed pass time when examining media motivations. Passing time refers to the act of engaging in activities or to occupy oneself during periods of free time or when one has nothing else to do. It can take many forms, such as watching television, reading books, playing games or activities on social media. The goal of passing time is often to relax, unwind, or enjoy oneself (Hoe- Lian et al., 2012).

c. Escapism/Diversion

According to Young et al. (2017), escapism is a practice used to divert attention away from issues in one's daily life. Escapism was defined by Turel et al., (2010) as the inner satisfaction people have when they forget about their daily tasks and engage in enjoyable activities, such as using social networking sites. Escapism is described as the amusement one derives from engaging in behaviours that are supportive of avoiding daily obligations, challenges, and constraints of social life (Klimmt & Vorderer, 2003). Escapism is the desire of an individual to avoid his or her regular troubles, worries, and issues in real life (Hirschman, 1983). Escapism can be defined as audiences engage with media texts as a means of seeking respite from their daily routines. They purposefully select entertaining texts that provide an avenue for diverting their attention from the realities of life, such as indulging in a fantasy film or immersing themselves in a captivating book. Escapism offers people a way to turn their focus away from tension, stress and worries of life when it becomes difficult.

3.17.2 Operational Definitions

i. Extrinsic Motives

a. Information Sharing

Information sharing in the context of social media refers to the process of sharing information, data, or content with other users or the public through social media platforms. Social media platforms enable users to share a wide range of information, such as comments, posts, text, images, videos, and links, with their family, friends, followers, or the general public. The goal of information sharing on social media can vary depending on the user and the platform, but may include expressing opinions, sharing news or updates, promoting products or services, or seeking support or advice. This also include sharing updates about oneself as well as sharing personal information, photographs, and videos etc. Operational measures of information sharing on social media often include assessing behaviors such as:

- **Sharing Personal Information:** An individual utilize social media as a platform to share personal information, including his latest pictures, videos, activities, and events. He actively engages in the sharing and dissemination of his life experiences, capturing moments through visual content and providing updates on his ongoing activities and events.
- **Voicing Opinion, Perspective and Viewpoint:** Individual utilizes social media as a platform to express and share their opinions with family members, friends, and relatives. Through their online presence, they actively engage in discussions, debates, and conversations on various topics, voicing their perspectives and viewpoints.

- **Share Ideas, Concepts and Knowledge:** An individual utilizes social media as a platform to share new ideas and knowledge with others. Through his online presence, he actively contributes to the dissemination of various concepts, different perspectives, and any type of information.
- **Share Latest News Information and Current Events:** An individual uses social media to share the latest news and information with others. Through their online presence, they actively engage in the dissemination of current events, breaking news, and relevant updates.

b. Social Interaction

In the context of social media, social interaction can operationally be defined as the use of social media platforms to maintain and strengthen relationships with existing family and friends, as well as to make new connections and acquaintances, to keep updated about social events and happenings in surrounding and it can also include the use of social media to establish and maintain one's own social identity by sharing personal information, expressing opinions and views, and participating in online communities and group. It includes friending and following, posting and sharing, likes, comments and reactions, messaging and chatting, tagging and mentioning, going live and event creation. Operational measures of social interaction on social media often include assessing behaviors such as:

- **Sharing Personal Identity:** A person utilizes social media as a platform to construct and shape his social identity. Through his online presence, he expresses his personal characteristics, preferences, affiliations, and self-representations.
- **Stay Updated:** An individual uses social media to stay informed and up-to-date about a wide range of social events, including birthdays, marriages,

parties, musical events, exhibitions, and more. He seeks to remain connected and informed about various social gatherings and happenings by being aware of important dates, celebrations, and cultural events within their social circle.

- **Maintain Relationship:** An individual utilizes social media platforms to maintain connections with their family, friends, and relatives. By actively engaging with various social media platforms, people can effortlessly stay in touch with them regardless of geographical distances or time constraints.
- **Make New Acquaintances:** A person uses social media to make new friends. Social media platforms provide opportunities to connect with individuals from different backgrounds, cultures, and geographic locations.

c. **Self-Presentation**

It can operationally be defined in the context of social media use that people often use social media platforms to present positive image of themselves by sharing various quotes, pictures and videos that depict them in favorable light. They share their achievements and good scores etc. to show themselves as a successful person. They also use these platforms to counter any negative perception of themselves that may have been established online and off line. Moreover, they give positive comments on others posts and shared contents. This is done with the hope of reciprocal comments and building a positive online reputation. Operational measures of self-presentation on social media often include assessing behaviors such as:

- **Showcasing Who He/She is:** An individual shares pictures, videos, and different quotes, among other things, that reflect his personality. Through these forms of media, he actively expresses and showcases various aspects of who he is, his interests, values, and preferences.

- **Highlighting Accomplishments:** An individual uses social media to share their good scores and positive achievements with friends. He actively celebrates and highlight his accomplishments, such as academic successes, professional milestones, or personal achievements and positive outcomes on social media .
- **Resort to Making Excuses:** When an individual is blamed for something, he may resort to making excuses or justifying his behavior on social media in an attempt to mitigate the negative impression others have of them.
- **Reciprocal Exchange of Praise:** An individual praises their friends on their achievements on social media with the expectation that he will receive praise in return. By highlighting their friends' accomplishments publicly, they aim to create a reciprocal dynamic where others may feel compelled to reciprocate the praise and recognize his own achievements as well.

ii. Intrinsic Motives

a. Entertainment

In the context of social media, entertainment refers to participating in activities on social media that are designed to bring joy and delight, such as watching movies, videos, listening to music, playing video games, observing humorous content or browsing other's profiles on social media. People also use SNSs to be relaxed and care free. There are various forms of content or activities that are designed to entertain and engage users on social media platforms. This can include funny or entertaining videos, memes, games, challenges, quizzes, and other interactive content. The primary goal of entertainment on social media is to provide users with a fun and enjoyable experience that encourages them to spend more time on the platform, engage with others, and share content with their friends and followers. Social media platforms

have become a major source of entertainment for many people, particularly younger generations, and have transformed the way we consume and share. Operational measures of entertainment on social media often include assessing behaviors such as:

- **Enjoyment and Pleasure:** An individual uses social media because it brings him enjoyment, pleasure and satisfaction to his online experience. This could include connecting with friends and family, discovering interesting content, participating in fun activities, consuming entertaining media.
- **Play Online Games:** An individual uses social media to play online games. By utilizing social media for gaming, individuals can connect and compete with friends, challenge other players, and explore different gaming communities.
- **Listen to Music and Watch Movies:** An individual uses social media to listen to music and watch movies and other entertaining videos. Through social media platforms, he has access to a wide range of music and video content from various artists, creators, and channels.
- **Funny and Humorous Content:** An individual may use social media because it provides amusement through the funny and humorous content shared by others as social media platforms often serve as a hub for sharing memes, jokes, funny videos, and humorous anecdotes that can bring joy, laughter, and a sense of amusement to life.

b. Pass Time

In the context of social media use, passing time on social media refers to the act of using social media to occupy oneself when there is nothing else to do, or when one is experiencing boredom or restlessness. People use social media to kill the time, individuals may scroll through their social media feeds, watch videos, read articles,

play games, chat with friends and generate content on social media to occupy themselves during their free time. Many people use social media during school time or at work place to pass the time and avoid boredom. Operational measures of pass time on social media often include assessing behaviors such as:

- **Having Idle Time:** An individual turn to social media when he has idle time. The platforms provide a convenient and easily accessible source of entertainment and engagement during moments of downtime or when waiting for something or taking a break, individuals may turn to social media to fill these time gaps and alleviate boredom.
- **Filling Gaps of Free Time in University/Job:** An individual uses social media in a college/university or office setting to kill spare time, it helps him fill gaps of free time and he is likely seeking gratifications or motivations by engaging in various activities of social media.
- **When Getting Bored:** An individual uses social media when he is bored. Boredom acts as a trigger for social media use. When a person feels bored, he may instinctively turn to social media platforms as a source of stimulation, entertainment, or distraction. The instant gratification and the seemingly endless stream of content on social media can provide a quick fix for relieving boredom.
- **Nothing Else to Do:** An individual uses social media when he has nothing else to do, he may turn to social media as it provides a quick and easily accessible source of engagements and stimulation and can be a valuable tool for entertainment, connection, and information.

c. Escapism/Diversion

In the context of social media use, escapism could be the act of engaging in an activity through which social media users can get rid of pressure and responsibilities. For some users, social media provides an outlet to temporarily forget about their problems and responsibilities and enjoy a sense of freedom and control. They may turn to social media as a way to avoid facing difficult situations, such as relationship problems or work stress, by distracting themselves with entertaining content, movies, music, videos and video games etc. or other engaging content. Social media offers a stimulating environment that aids users in avoiding difficulties and challenges in their social lives. People use media to escape from reality and its use can lead to procrastination and keeping pending the things that must be done. Some people can start living in a world of fantasy by using social media and relying on it for their emotional needs. Social media can provide a highly curated and filtered version of reality that may not reflect the challenges and complexities of everyday life. It can be tempting to get lost in this idealized and fantasy full world and ignore the difficulties and responsibilities of the real world. Operational measures of escapism or diversion on social media often include assessing behaviors such as:

- **Escape from Pressures and Responsibilities:** An individual uses social media as a means to escape from pressures and responsibilities, it can be a form of avoidance or coping mechanism. Social media platforms provide a distraction from the demands of daily life, offering a temporary reprieve from stress and obligations.
- **Escape in a World of Fantasy:** An individual uses social media to immerse themselves in a world of fantasy, it can be a way to escape from reality and find enjoyment in imaginative or fictional realms. Social media platforms are

often associated with presenting an idealized and polished version of life. This curate representation can set unrealistic standards and fuel fantasies of users.

- **Procrastination:** An individual uses social media to procrastinate or delay something they should be doing. Procrastination is the act of delaying or postponing tasks or responsibilities, often to engage in more pleasurable or easier activities. Using social media platforms can be particularly tempting for procrastination because they provide a constant stream of content, entertainment, and social interaction that can easily absorb a person's attention.
- **Escape from Reality:** An individual uses social media as an escape from reality, it can be a way to seek temporary relief from the challenges, stress, or monotony of everyday life. Social media serves as a way to temporarily alleviate stress, relax, and divert attention from the demands of everyday life.

3.18 Measurements

A questionnaire comprising of following sections were used to collect the required information from the participants:

- i. Demographic information
 - ii. Big Five Personality Traits (Big Five Inventory, BFI)
 - iii. Bergen Social Media Addiction Scale (BSMAS)
 - iv. Extrinsic and Intrinsic Motives Measurement Scale
- i. **Demographic information**

Demographic information age, gender, level of education, monthly family income were collected by using first section of the questionnaire. A questionnaire

comprising of following sections has been used to collect the required information from the participants. The demographic questions include:

- Gender
- Age
- Program of studies
- Level of degree
- Monthly family income

ii. Measuring Personality Traits

a. Big Five Inventory (BFI)

In second section, personality traits were measured. To measure personality traits tested scale (Big Five Inventory, BFI) was used. Big Five Inventory (BFI) is comprised of 44 items and was developed by John and Srivastava (1999). The BFI is a self-report questionnaire that is used to assess the five dimensions of personality described by the Five Factor Model (FFM). The BFI consists of a series of statements about personality traits, and respondents rate themselves on a Likert scale based on how well each statement describes them.

Various researchers expressed their consensus on five universal factors for determining the personality traits, i.e., neuroticism, extraversion, openness to experience, agreeableness and conscientiousness (Goldberg, 1990; McCrae & Costa, 1997). Self-report assessment designed to assess these Big Five dimensions is called the Big Five Inventory (BFI). Instead of analyzing each component independently, the Big Five Inventory (BFI) was created to offer a quick, simple to comprehend, and flexible manner of evaluating these five broad dimensions (John et al, 1991).

The BFI retains the benefits of adjectival items (brevity and simplicity) while avoiding some of their drawbacks. This is achieved by using short phrases and avoiding complex sentence patterns (ambiguation, multiple meanings and particular approach). Several batteries, including the 60-item NEO-PI-R (McCrae et al., 2005), the IPIP Big-Five 50-item inventory (Goldberg, 1992), and IPIP-BFM-20 (Donnellan et al. 2006) have been developed to measure the Big Five dimensions.

Comparing to the other popular inventory, BFI-44 is considered to be more suitable for measuring personality traits due to the significance and widespread use of the constructs it assesses. Later in 2007, Rammstedt and John reduced BFI-44 into 10 items (TIPI) (Rammstedt & John, 2007). With the help of just two items, the scale calculates scores for each of the Big Five aspects. For instance, the extraversion scale is determined by how much a person agrees with two statements: “I see myself as extraverted, enthusiastic” and “I see myself as reserved, quiet” (the second one is reversed coded). Ten items (TIPI) has the benefit of being filled in a shorter period of time. Despite the fact that short forms of personality traits test may be appealing to both clinicians and researchers. TIPI scales can’t, however, reach the same level of internal reliability as longer batteries because there are only two items per trait domain. So there are limitations regarding the validity of score interpretation.

The BFI effectively captures all five dimensions of personality within a reasonable time limit and demonstrates high internal consistency and reliability. The Big Five Inventory (BFI) has been widely used in various fields including language, communication, education, psychology, and clinical research (Patrick, 2011; Paine et al., 2009; Sims, 2016). There is a growing recognition of the BFI as a valuable tool for assessing personality. Its applicability has also been examined across different societies and cultures, with research generally showing that the five domains of the

BFI are applicable across cultures (Levitan et al., 2016; McCrae & Terracciano, 2005; Saucier & Goldberg, 2001).

b. BFI in Present Study

In this study, the 44-item BFI Inventory was used to measure Big Five personality traits.

- **Agreeableness:** Nine items were used to assess agreeableness, with a sample item being “I see myself as someone who is helpful and unselfish with others.”
- **Conscientiousness:** Conscientiousness was measured using nine items, with a sample item being “I see myself as someone who does a thorough job.”
- **Extraversion:** Eight items were used to assess extraversion, and a sample item was “I see myself as someone who is talkative.”
- **Openness to Experiences:** Openness to experiences was evaluated using 10 items, with one sample item being “I see myself as someone who is imaginative.”
- **Neuroticism:** The final personality trait of neuroticism was assessed using eight items, with one example item being “I see myself as someone who easily gets upset.”

c. Reverse Coding

A total of 16 items were reversely coded, including 3 items for neuroticism, 4 items for agreeableness, 3 items for extraversion, 2 items for openness, and 4 items for conscientiousness. These items were scored on a 5-point Likert scale with anchors including: Strongly Disagree, Disagree, Neutral, Agree and Strongly Agree. The scale scores were determined by calculating the average of the participant’s responses to

each item, which involved adding up their responses to all items in a scale and dividing the sum by the number of items in the scale.

Researchers often employ reverse coding in surveys and psychological assessments to counteract response biases and enhance measurement precision. By strategically phrasing certain items in a negatively framed manner within a predominantly positively framed scale, they introduce variability and discourage participants from providing consistent or socially desirable responses. This approach helps control for acquiescence bias and ensures that respondents carefully consider each question, contributing to the validity and reliability of the measurement instrument. Ultimately, reverse coding adds complexity to measurement scales, capturing diverse aspects of the construct being studied and leading to a more nuanced understanding of the variable under investigation.

The following items were reverse coded.

S. No. in Questionnaire	Statement
I see myself as someone who:	
Extraversion	
6	Is reserved
21	Tends to be quite
31	Is sometimes shy, inhibited
Agreeableness	
2	Tends to find fault with others
12	Starts quarrel with others
27	Can be cold in attitude and like to live alone
37	Sometimes rude to others
Conscientiousness	
8	Can be somewhat careless
18	Tends to be disorganized
23	Tends to be lazy
43	Is easily distracted and diverted

Neuroticism	
9	Is relaxed, handle stress well
24	Is emotionally stable not easily upset
34	Remains calm in tense situation
Openness	
35	Prefers work that is of routine nature
41	Has few artistic interest

d. Slight Modifications to the Scale

As mentioned earlier, the scale was slightly modified to meet the cultural and social needs and to better suit the English language proficiency and comprehension level of the university students. The wording of certain items was slightly altered or expanded for better understanding by the participants in this study. It is important to ensure that throughout the process, the true essence of the items was not compromised.

The following items were slightly modified:

S. No.	Original	Slightly Modified
1.	Does a thorough job	Perform his duty/job perfectly
2.	Is depressed, blue	Sometimes feel depressed
3.	Is ingenious, deep thinker	Is creative and think deeply
4.	Makes plans and follow through with them	Makes plan and execute/complete them
5.	Likes to reflect, play with ideas	Likes to think over issues, play with ideas
6.	Persevered until the task is finished	Keep doing the work/task, until completed

iii. Measuring Social Media Addiction

a. Bergen Social Media Addiction Scale (BSMAS)

The measurement of social media addiction was conducted in the third section, using the Bergen Social Media Addiction Scale (BSMAS) developed in 2016. This

scale was developed by modifying the Bergen Facebook Addiction Scale (BFAS), which was originally created by Norwegian researcher Andreassen et al. (2012). The Bergen Facebook Addiction Scale (BFAS), while useful, has a significant limitation in that it only measures addiction to Facebook and does not account for the growing use of other social media platforms such as Twitter, Instagram, Snap chat, and YouTube. To address this limitation, Andreassen et al. (2016) created the Bergen Social Media Addiction Scale (BSMAS), which is a shortened version of the Bergen Facebook Addiction Scale (BFAS) and is designed to assess addiction to multiple social media platforms.

The Bergen Social Media Addiction Scale (BSMAS) consists of six items that correspond to the diagnostic themes of addiction. These items correspond to behavioral addiction components model developed by Griffith (2005) and include the six components, i.e., salience, mood modification, tolerance, withdrawal, conflict, and relapse, as proposed by Griffiths (2005). The items in the scale are designed to measure the extent to which an individual experiences these components in relation to their social media use.

The original version of the Bergen Facebook Addiction Scale (BFAS) consisted of a pool of 18 items that assessed each of the six basic elements of addiction. Each of the six components of addiction was represented by three items, leading to a total of 18 items. In a study conducted by Andreassen and colleagues, the 18-item BFAS was administered to 423 students, along with several other standardized self-report assessments. Based on the results of this research, a shorter version of the BFAS was developed, which became the current version of the scale (Andreassen et al., 2012).

In 2016, Andreassen et al. modified the Bergen Facebook Addiction Scale (BFAS) to create the Bergen Social Media Addiction Scale (BSMAS). The modification involved replacing the word 'Facebook' with 'social media' and reducing the number of items from 18 to 6. Unlike the BFAS, which included three items for each of the six components of behavioral addiction, the BSMAS selected only one item from each component. For example, in the BFAS, three items were included for the component of salience, i.e., "Spent a lot of time thinking about Facebook or planned use of Facebook?", "Thought about how you could free more time to spend on Facebook?", and "Thought a lot about what has happened on Facebook recently?"

In the BSMAS, only one item, "Spent a lot of time thinking about social media or planned use of social media?" was included. The modification resulted in a reduction of items from 18 to 6, making the Bergen Social Media Addiction Scale (BSMAS) a shorter and more comprehensive measure. Participants were asked to respond to each item on a 5-point Likert scale, with anchors including: very rarely (1), rarely (2), occasionally (3), often (4), and very often (5). The six items assess the subjects' experience of using social media over the past year. However, in this study the researcher did not bound the respondent by mentioning the time frame. The minimum score that can be obtained from the scale is 6, while the maximum is 30. The BSMAS was adapted to fit the local setup, culture, and understanding of the university students being assessed.

The items in the BSMAS were rephrased to make them more understandable and appropriate for the cognitive level of university students, while preserving their core meaning. The Bergen Social Media Addiction Scale (BSMAS) has been found to be a valid and reliable measure of social media addiction in previous studies

(Andreassen et al., 2016; Andreassen et al., 2017; Bányai et al., 2017; Lin et al., 2017; Monacis et al., 2017). Furthermore, the BSMAS has been validated in various languages, including English, Italian, Persian, and Portuguese (Griffiths, 2016; Pontes, Andreassen & Griffiths, 2016; Monacis et al., 2017; Lin et al., 2017).

The Bergen Social Media Addiction Scale (BSMAS) is a tried and tested tool. Choosing the BSMAS offers several advantages in the assessment of social media addiction. The Bergen Social Media Addiction Scale is a valuable tool in assessing and measuring social media addiction. This scale provides a standardized and reliable method for gauging the extent of an individual's dependency on social media platforms. Its usefulness lies in its ability to identify problematic social media usage patterns and contribute to a better understanding of the factors associated with social media addiction. By utilizing the BSMAS, researchers, psychologists, and clinicians can gain insights into the prevalence and severity of social media addiction, facilitating targeted interventions and prevention strategies. Moreover, the scale's clear and concise questions make it a practical instrument for both research studies and clinical assessments, contributing to the broader discourse on the impact of excessive social media use on mental health and well-being.

iv. Measuring Social Media Use Motives

In section four, the extrinsic and intrinsic motives of social media use were assessed. The items for the social media use motives scale were drawn from existing literature on Uses and Gratifications. The study focused on the specific intrinsic and extrinsic motivation factors, and identified three extrinsic motivation factors and three intrinsic motivation factors from previous Uses and Gratifications items. The extrinsic motivation factors are: social interaction, information sharing, and self-presentation.

These factors have been studied by various researchers including Bonds-Raacke and Raacke (2010), Chen and Kim (2013), Rae and Lonborg (2015), Khan (2017), Gupta and Bashir (2018).

The extrinsic motivation scale consisted of 12 items arranged into 3 factors with four items in each subscale: information sharing (e.g. “I use social media to share new ideas and knowledge on social media”), social interaction (e.g. “I use social media to keep in touch with family, friends and relatives”), self-presentation (e.g. “I use social media to share my good scores and positive achievements with friends on social media”).

Likewise, intrinsic motivation factors included: entertainment, pass time and escapism or diversion. These factors have been studied by various researchers including Rubin (1983), Sheldon (2008), Kanwal et al. (2019), Papacharissi and Mendelson (2011), Gupta and Bashir (2018), Pinto and Poornananda (2017), and Khan (2017). The intrinsic motivation scale also consisted of 12 items arranged into 3 factors with 4 items in each subscale: entertainment (e.g. “I use social media because it provides enjoyment”), pass time (e.g. “I use social media when I have idle time”), escapism (e.g. “I use social media to get away from pressure and responsibilities”). The scales were evaluated on 5-point Likert scale ranges from 1 (never), 2 (rarely), 3 (sometimes), 4 (often), and 5 (always).

3.19 Cut-Off Score

The current study applied 19 and above out of 30 cut-off score proposed by Banyai et al. (2017) for calculating how many students are addicted to social media. Researchers proposed varying guideline for scoring to classify social media users as ‘at risk’ of social media addiction. Andreassen et al. (2012) proposed a scoring

method which suggested if a person score 4 positive out of six items indicates probable addiction. However Andreassen et al. (2016) admitted that the criteria should be revised.

Banyai et al. (2017) suggested a cut-off score of 19 points for the Bergen Social Media Addiction Scale (BSMAS) to classify individuals as at-risk of problematic social media use (Bányai et al., 2017). This cut-off score was determined based on sensitivity, specificity, positive predictive value (PPV), negative predictive value (NPV), and accuracy analysis of the BSMAS at all possible cut-off points. The analysis used the third latent profile analysis (LPA) class, which represents individuals at-risk of problematic social media use, as the ‘gold standard’ to determine the optimal cut-off threshold. At a score of 19, the sensitivity was 92.5%, the specificity was 85.2%, and the accuracy was 87.3% (Bányai et al., 2017).

Other studies have also examined the diagnostic accuracy of the BSMAS at different cut-off scores. For example, at a score of 24, the sensitivity was 96.4%, the specificity was 99.1%, and the Youden Index achieved its maximum value (95.5%) (Luo et al., 2021). However, Banyai et al. (2017) argued that a cut-off score of 24 may result in a higher rate of false negatives, meaning that some individuals with problematic social media use may not be identified.

Based on a suggested cut-off point applied to the addiction scores, Banyai et al. (2017) divided it into two parts ‘at- risk’ and ‘no or low-risk’ of social media addiction. According to Banyai et al. (2017), ‘at risk’ means an individual is addicted to social media and ‘no or low risk’ means individual is not addicted to social media. Many researchers applied it on their studies including Turel et al. (2018), Tosuntaş et al. (2020), Watson et al. (2020), Leung et al. (2020), and Wong et al. (2020).

3.20 Coding

For data input in Statistical Package for Social Sciences (SPSS) variables were coded, i.e., gender, male for 1 and female for 2. Program of study was coded with Bachelors for 1, MS/MPhil for 2, and PhD for 3. Along with other demographic variables, independent, dependent and moderating variables were coded with 5-point Likert scales ranging from 1 to 5.

3.21 Reduction

The data was computed and mean centered as per the requirement of the study.

Chapter 4

RESULTS, FINDINGS AND ANALYSIS

The data collected through questionnaire has been analyzed with the help of Statistical Package for Social Sciences (SPSS) version 21 by applying descriptive and inferential statistics. To interpret the data, figures and tables were displayed. Correlation matrix of all variables has also been obtained to show the correlation among the variables. T test has been applied to know the ratio of social media addiction between male and female students. For inferential statistics hierarchical multiple regression was applied to investigate the relationship between independent (predictor) dependent (criterion) and moderating variables.

4.1 Descriptive Analysis

4.1.1 Demographic Information

Table 4.1, 4.2, 4.3 and 4.4 shows the frequency and percentage of gender, age, study level and approximately monthly family income of the respondents respectively.

4.1.2 Gender

Male students filled 211 whereas female students filled 281 questionnaire.

4.1.3 Age Group

For age group, the highest number of students 381 (77.4%) fall into the category 18 to 23, while 101 (20.5%) comes in the bracket of 24 to 29 followed by 7 (1.4%) for 30 to 35 and 3 (.6) for more than 35 respectively.

4.1.4 Level of Education

For level of education, the highest number of participants were undergraduate students 388 (78.9) followed by 91 (18.5) from Masters and 13 (2.6) from PhD program respectively. Since the selected population mostly consisted of undergraduate students that is why bachelor degree program is more likely to be seen.

4.1.5 Monthly Family Income

For monthly family income, out of 492 respondents, 52 respondents indicated less than 30,000 PKR monthly family income. While the highest number of respondents 138 fell in the second income bracket 30,000 PKR to 60,000 PKR bracket and 135 respondents fell in the third income group 60 PKR to 90,000 PKR. 91 respondents belong to 90,000 to 120,000 PKR family income group. While 76 respondents stated that their approximate family income more than 120,000 PKR.

Table 4.1

Gender

Gender	Frequency	Percent
Male	211	42.9
Female	281	57.1
Total	492	100.0

Table 4.2

Age Group

Age Group (in years)	Frequency	Percent
18-23	381	76.9
24-29	101	18.8
30-35	7	3.1
36 & Above	3	1.2
Total	492	100.0

Table 4.3*Education*

Education	Frequency	Percent
Undergraduate (BS/MSc)	388	78.9
Masters (MS/MPhil)	91	18.5
Doctorate (PhD)	13	2.6
Total	492	100.0

Table 4.4*Approx. Monthly Family Income*

Monthly Family Income	Frequency	Percent
Less than PKR 30,000/-	52	10.6
PKR 30,000 – 60,000/-	138	28.0
PKR 60,000 – 90,000/-	135	27.5
PKR 90,000 – 120,000/-	91	18.5
More than PKR 120,000/-	76	15.4
Total	492	100.0

Table 4.5*Mean (M) and Standard Deviation (SD)*

Variables	Mean	Standard Deviation
Agreeableness	3.30	.534
Extraversion	3.09	.640
Openness	3.11	.776
Neuroticism	2.50	.798
Conscientiousness	3.25	.841
Extrinsic Motives	2.74	.766
Intrinsic Motives	3.18	.759
Social Media Addiction	2.65	.871

The table 4.5 shows the result of mean (M), standard deviation (SD) of main variables of the study, i.e., demographic variable (gender), predictor variable (five components of personality traits), moderating variables (extrinsic and intrinsic motivations) and criterion variable (social media addiction).

The mean and standard deviation of the main variables are: Agreeableness (M 3.30, SD .534), Extraversion (M 3.09, SD .640), Openness to experience (M 3.11, SD .776), Neuroticism (M 2.50, SD .798), Conscientiousness (M 3.25, SD .841), extrinsic motives (M 2.74, SD .766), Intrinsic Motives (M 3.18, SD .759), and Social Media Addiction (M 2.65, SD .871).

4.2 Level of Social Media Addiction among University Students

Table 4.6

Level of Social Media Addiction

Risk Level	Frequency	Percent
No/Low Risk	328	67.0
At Risk	164	33.0
Total	492	100.0

The table 4.6 shows that 328 (67.0%) students are not at risk while 164 (33.0%) students are at risk for social media addiction.

4.3 Zero-Order Correlation among Main Variables

Prior to conducting the multiple regression analysis to test the hypotheses, a preliminary assessment was performed on the relationships between the independent, dependent, and moderating variables using zero-order or bivariate correlation coefficients. Table 4.7 provided an overview of the impact of predictor variables on the criterion variable.

Table 4.7*Zero-Order Correlation among Main Variables*

Variables	1	2	3	4	5	6	7	8	9
Gender	1								
Agreeableness ^a	.095*	1							
Extraversion ^b	.016	.208**	1						
Openness ^c	.097*	-.020	-.098*	1					
Neuroticism ^d	.021	.023	-.039	-.005	1				
Conscientiousness ^e	-.039	-.008	-.109*	.146**	-.043	1			
Extrinsic Motives ^f	.152**	.192**	.155**	.003	-.021	-.063	1		
Intrinsic Motives ^g	.013	.164**	.088	-.068	.163**	-.042	.421**	1	
SM Addiction ^h	.124**	.426**	.434**	-.165**	.123**	-.270**	.368**	.362**	1

*Correlation is significant at the 0.05 level (2-tailed).

** Correlation is significant at the 0.01 level (2-tailed).

1. ^a Agreeableness
2. ^b Extraversion
3. ^c Openness to experience
4. ^d Neuroticism
5. ^e Conscientiousness
6. ^f Extrinsic Motives
7. ^g Intrinsic Motives
8. ^h Social Media Addiction

The results indicated that all variables were significantly correlated in the expected direction. The result revealed that there was a positive and significant correlation between social media addiction and gender ($r=0.124$, $p<0.1$) significant and positive correlation between social media addiction and agreeableness ($r=0.426$, $p<0.1$) significant and positive correlation between social media addiction and extraversion ($r=0.434$, $p<0.1$), significant but negative correlation between social media addiction and openness to experience ($r=-0.165$, $p<0.1$) significant and positive correlation between social media addiction and neuroticism ($r=0.123$, $p<0.1$), significant but negative correlation between social media addiction and conscientiousness ($r=-0.270$, $p<0.1$), significant and positive correlation between

social media addiction and extrinsic motives ($r=0.368$, $p<0.1$), significant and positive correlation between social media addiction and intrinsic motives ($r=0.362$, $p<0.1$).

As far as relationship between intrinsic motives and other variables are concerned, intrinsic motive is not significantly correlated with gender ($r=0.013$, $p>0.1$) while intrinsic motive is significantly and positively correlated with agreeableness ($r=0.164$, $p<0.1$). Intrinsic motives is not significantly correlated with extraversion ($r=0.088$, $p>0.1$) it is also negatively and insignificantly correlated with openness to experience ($r=-0.068$, $p>0.1$). Intrinsic motive has shown positive and significant correlation with neuroticism ($r=0.163$, $p<0.1$). The correlation between intrinsic motives and conscientiousness is negative and not significant ($r=-0.042$, $p>0.1$) while intrinsic motive has shown positive and significance correlation with extrinsic motive ($r=0.421$, $p<0.1$).

The relationship between extrinsic motives and other variables also vary in nature. Extrinsic motives correlation with gender is positive and significant ($r=0.152$, $p<0.1$). Correlation between extrinsic motive and agreeableness is positive and significant ($r=0.192$, $p<0.1$). Extrinsic motive has also shown positive and significant correlation with extraversion ($r=0.155$, $p<0.1$) but it is not significantly correlated with openness to experience ($r=0.003$, $p>0.1$). Extrinsic motive also did not show any positive and significant correlation with neuroticism ($r=-0.021$, $p>0.1$). The correlation between extrinsic motive and conscientiousness is also negative and not significant ($r=0.063$, $p>0.1$).

When we examine correlation of components of personality traits, the result showed that conscientiousness is negatively correlated with gender and it is also not significant ($r=-0.039$, $p<0.1$). The correlation between conscientiousness and

agreeableness is also not positive and not significant ($r=-0.008$, $p>0.1$) conscientiousness is negatively but significantly correlated with extraversion ($r=0.109$, $p<0.1$). Conscientiousness is significantly and positively correlated with openness to experience ($r=0.146$, $p<0.1$) while conscientiousness is negatively correlated with neuroticism and the relationship is not significant ($r=-0.043$, $p>0.1$).

Another component of personality trait neuroticism did not show any significance towards gender ($r=0.021$, $p>0.1$) and it is not significantly correlated with agreeableness ($r=0.023$, $p>0.1$) neuroticism is not positively correlated with extraversion and the relationship is also not significant ($r=-0.039$, $p>0.1$). Neuroticism is negatively correlated with openness to experience and it is not significant ($r=-0.005$, $p>0.1$). The component of openness to experience is significantly and positively correlated with gender ($r=0.097$, $p<0.1$) but openness to experience is not significantly correlated with agreeableness and the nature of relationship is not positive ($r=-0.020$, $p>0.1$). Correlation between openness to experience and extraversion is significant but negative ($r=-0.098$, $p<0.1$). The component of extraversion is not significantly correlated with gender ($r=0.016$, $p>0.1$) while extraversion is positively and significantly correlated with agreeableness ($r=0.097$, $p<0.1$). Extraversion is not positively correlated with gender ($r=0.016$, $p>0.1$) while it is positively and significantly correlated with agreeableness ($r=0.208$, $p<0.1$). Agreeableness showed positive and significant correlation with gender ($r=0.095$, $p<0.1$).

Given the fact that respondents other demographic variables age, level of education and monthly family income did not show any significant correlation with other variables. Thus, these variables were not included in zero-order correlations table.

4.4 Inferential Analysis

The present study was conducted to address three research questions:

RQ-1: Is there any significant difference in the level of addiction between male and female university students?

RQ-2: What is the relationship between Big Five Personality traits (extraversion, conscientious, agreeableness, neuroticism and openness to experience) and social media addiction?

RQ-3: Do social media use motives (extrinsic and intrinsic) moderate the relationship between personality traits and social media addiction?

To address these questions, several hypotheses were formulated and tested. The following section presents the data analysis and results related to the research questions and hypotheses.

The present study tested the following hypotheses.

H1: There is a significant difference in the level of addiction between male and female university students.

H2: Big Five personality traits will predict social media addiction. So H2 posits that:

H2a: Conscientiousness will negatively predict social media addiction.

H2b: Openness will negatively predict social media addiction.

H2c: Agreeableness will positively predict social addiction.

H2d: Extraversion will positively predict social media addiction.

H2e: Neuroticism will positively predict social media addiction.

H3: Social media use motives type will moderate the relationship between Big Five Personality Traits (extraversion, conscientiousness, agreeableness, neuroticism, openness to experience) and social media addiction. So H3 posits that:

H3a: Motives type (extrinsic and intrinsic) will moderate the relationship between extraversion and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3b: Motives types (extrinsic and intrinsic) will moderate the relationship between conscientiousness and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3c: Motives types (extrinsic and intrinsic) will moderate the relationship between neuroticism and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3d: Motives types (extrinsic and intrinsic) will moderate the relationship between agreeableness and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3e: Motives types (extrinsic and intrinsic) will moderate the relationship between openness to experience and social media addiction with the relationship being stronger for users scoring high on extrinsic motives

4.5 Major Statistical Tool

In this study, the hierarchical multiple regression was used as the primary statistical tool to test the proposed hypotheses, except for first hypothesis. H1 was tested using an independent samples t-test. The independent samples t-test is a statistical analysis that evaluates whether there is a significant difference between the

means of two independent groups. This test compares the means of two separate samples and uses a t-statistic to assess whether the difference in means is due to random chance or indicates a real difference in the population. Specifically, an independent samples T-test was performed to examine the mean difference between males and females. Social media addiction was considered the dependent (continuous) variable, while gender (male and female) was treated as an independent (categorical) variable.

In line with the presumptions of current research, hierarchical multiple regression was specifically chosen for this study because of its highly testing capability for offering acceptable ways of examining a group of variables (De Vaus, 2002). To look at possible links between different predictors and a continuous dependent variable, multiple regression can be used. Because it is primarily focused on correlation, it has the potential to provide a more thorough analysis of the interactions between a collection of variables (Pallant, 2010).

According to Pallant (2010), the use of multiple regression is appropriate for addressing a variety of research issues, outlining how a group of factors might predict a particular outcome, and investigate more challenging real-world research themes. Multiple regression allows for the examination of the impact and contribution of multiple variables on a model, as well as the ability to control for additional variables. It also enables researchers to determine if the inclusion of an additional variable improves the analytical ability of the model. Multiple regression was found to be suitable for the current research and was therefore applied. The method was utilized after it was determined that it was an appropriate fit for the nature of the investigation.

Multiple regression analysis serves as a valuable tool for studying social media addiction due to the multifaceted nature of this phenomenon. By simultaneously examining various influencing factors like time spent on social platforms, frequency of use, various personality traits, and media use motives, researchers gain a comprehensive understanding of the complex dynamics involved. The quantitative analysis provided by multiple regression enables a nuanced exploration of the strength and direction of relationships between these factors and social media addiction. This approach helps identify statistically significant predictors, allowing researchers to prioritize interventions effectively. Furthermore, the ability to control for confounding variables enhances the accuracy of findings, isolating the unique contributions of each factor. The interpretation of coefficients provides insights into the magnitude and direction of the impact of independent variables on addiction. Additionally, the assessment of model fit aids in evaluating the overall explanatory power of the regression model. Ultimately, the findings from multiple regression analysis offer actionable insights for designing targeted interventions and preventive strategies, contributing to a more informed approach to addressing social media addiction.

Multiple regression analysis, while a powerful statistical tool, is not without limitations. One primary limitation lies in the assumption of linearity, implying that relationships between variables are linear, which may not always hold in real-world scenarios. Additionally, the analysis assumes no multicollinearity, meaning that predictor variables are not highly correlated, as this can lead to inflated standard errors and challenges in identifying individual variable contributions. Another limitation is the sensitivity to outliers, as extreme values can disproportionately influence results. Assumptions of homoscedasticity (constant variance of errors) and

independence of errors are also critical; violations can impact the validity of statistical inferences. Furthermore, the method may not capture non-linear relationships or interactions among variables, potentially overlooking important nuances in the data. Careful consideration of these limitations is essential for the accurate interpretation and application of multiple regression analysis.

4.6 The Prerequisites for Multiple Regression

Before proceeding to the final data analysis process, preliminary data analyses were carried out to ensure compliance with the key assumptions of multiple regression. These assumptions usually focus on normality, linearity, multicollinearity and homoscedasticity. All the following prerequisites were addressed before conducting the regression analysis:

- **Linearity:** The relationship between the dependent and independent variables should be linear.
- **Independence of residuals:** Residuals (the differences between observed and predicted values) should be independent of each other.
- **Homoscedasticity:** Residuals should have constant variance across all levels of the independent variables
- **Normality of residuals:** Residuals should be approximately normally distributed.
- **No multicollinearity:** Independent variables should not be highly correlated with each other.

Apart from that, all categorical variables were dummy coded, outliers were checked, mean and standard deviation of each item of the scale was derived and all required data was mean centered before applying final data analysis.

4.7 Hypotheses Testing

H1: There is a significant difference in the level of addiction between male and female university students.

Table 4.8

Independent Sample T-Test Result for difference in the level of Addiction between Male and Female University Students (N= 492)

Variables	Groups	Mean	SD	t	p	Cohen's d
SM Addiction ^a	Male	2.53	.924	-2.77	.006	0.25
	Female	2.75	.818			

^aSocial Media Addiction

**P < 0.01

*P < 0.05

An independent sample t-test was conducted to compare the scores of level of addiction between male and female university students.

T-test is used to assess gender differences when dealing with two independent groups, such as males and females, and comparing a continuous variable, like social media addiction scores. The t-test is specifically designed for such scenarios, offering a reliable statistical method to determine if the mean scores between the two genders are significantly different. It helps researchers identify whether any observed differences are likely due to actual gender distinctions or if they could have occurred by chance.

Table 4.8 revealed significant mean difference on social media addiction with $t(490) = -2.77, P < 0.05$. Findings showed that female university students exhibited higher scores on social media addiction ($M=2.75, SD=0.818$) compared to the male university students ($M=2.53, SD=0.924$). The value of Cohen's d was 0.25 which indicated small effect size. The result revealed that male and female university

students differ significantly regarding their social media addiction behavior. So H1 is supported.

H2: Big Five personality traits will predict social media addiction. So H1 posits that:

H2a: Conscientiousness will negatively predict social media addiction.

H2b: Openness will negatively predict social media addiction.

H2c: Agreeableness will positively predict social addiction.

H2d: Extraversion will positively predict social media addiction.

H2e: Neuroticism will positively predict social media addiction.

A hierarchical multiple regression on SPSS version 21 has been applied to test H2 in order to analyze the effects of predicting variable (personality traits) on criterion variable (social media addiction). Controlling variables age gender, education and monthly family income were entered in block one and independent variable (conscientiousness) one of the five components of personality traits was entered in block 2.

The hierarchical multiple regression revealed that only controlling variables gender contributed significantly to the regression analysis. The variables explained 1.8% of variance in social media addiction. It also registered F value $F(4,487)=2.26$, $p>0.01$. The personality trait conscientiousness is significantly but negatively related to social media addiction. Moreover, the variable explained 7% of variance in social media addiction. It also registered significant F value $F(1,486)=37.49$, $p<0.01$. The total variance was 8.8%. Thus H2a was supported. The result of regression analysis are reported in table 4.9 given below.

Table 4.9

Hierarchical Regression result indicating Effect of Personality Trait (Conscientiousness) on Social Media Addiction (N=492)

Variables		β
Block 1	Age	.12
	Gender	.03**
	Education	-.05
	Monthly Family Income	-.02
	ΔR^2 %	1.8
Block 2	Conscientiousness	-.26**
	ΔR^2 %	7.0**
Total	ΔR^2 %	8.8**

** $P < 0.01$

* $P < 0.01$

For testing hypothesis 2b, controlling variables age gender, education and monthly family income were entered in block one and independent variable (openness to experience) one of the five components of personality traits was entered in block 2.

The hierarchical multiple regression revealed that only controlling variables gender contributed significantly to the regression analysis. The variables explained 1.8% of variance in social media addiction. It also registered F value $F(4,487)=2.26$, $p>0.01$. The personality trait openness to experience was significantly but negatively influenced social media addiction. The variable explained 3.2% of variance in social media addiction. It also showed significant F value $F(1,486)=16.26$, $p<0.01$. The result showed total variance 5%. Thus, H2b was supported. The result of regression analysis is reported in table 4.10 given below.

Table 4.10

Hierarchical Regression result indicating Effect of Personality Trait (Openness to Experience) on Social Media Addiction (N=492)

Variables		β
Block 1	Age	.12
	Gender	.03**
	Education	-.05
	Monthly Family Income	-.02
	ΔR^2 %	1.8
Block 2	Openness to Experience	-.17**
	ΔR^2 %	3.2**
Total	ΔR^2 %	5.0**

** $P < 0.01$

* $P < 0.05$

For testing hypothesis 2c, controlling variables age gender, education and monthly family income were entered in block one and independent variable (agreeableness) one of the five components of personality traits was entered in block 2.

The hierarchical multiple regression revealed that only controlling variables gender contributed significantly to the regression analysis. The variables explained 1.8% of variance in social media addiction. It also registered F value $F(4,487)=2.26$, $p>0.01$. The personality trait agreeableness was significantly and positively influenced social media addiction. The variable explained 17.2% of variance in social media addiction. It also registered significant F value $F(1,486)=103.01$, $p<0.01$. The total variance 19%. Thus H2c was supported. The result of regression analysis is reported in table 4.11 given below.

Table 4.11

Hierarchical Regression result indicating Effect of Personality Traits (Agreeableness) on Social Media Addiction (N=492)

Variables		β
Block 1	Age	.12
	Gender	.03**
	Education	-.05
	Monthly Family Income	-.02
	ΔR^2 %	1.8
Block 2	Agreeableness	.41**
	ΔR^2 %	17.2**
Total	ΔR^2 %	19.0**

** $P < 0.01$

* $P < 0.05$

To test hypothesis 2d, controlling variables age gender, education and monthly family income were entered in block one and independent variable (extraversion) one of the five components of personality traits was entered in block 2 .

The hierarchical multiple regression revealed that only controlling variable gender contributed significantly to the regression analysis. The variables explained 1.8% of variance in social media addiction. It also registered F value $F(4,487)=2.26$, $p>0.01$. The personality trait extraversion was significantly and positively influenced social media addiction. The variable explained 18% of variance in social media addiction. It also registered significant F value $F(1,486)=114.98$, $p<0.01$. Total variance was 19.8%. Thus H2c was supported. The result of regression analysis is reported in table 4.12 given below.

Table 4.12

Hierarchical Regression result indicating Effect of Personality Traits (Extraversion) on Social Media Addiction (N=492)

Variables		β
Block 1	Age	.12
	Gender	.03**
	Education	-.05
	Monthly Family Income	-.02
	ΔR^2 %	1.8
Block 2	Extraversion	.43**
	ΔR^2 %	18.0**
Total	ΔR^2 %	19.8**

** $P < 0.01$

* $P < 0.05$

To test hypothesis 2e controlling variables age gender, education and monthly family income were entered in block one and independent variable (neuroticism) one of the five components of personality traits was entered in block 2 .

The hierarchical multiple regression revealed that only controlling variable gender contributed significantly to the regression analysis. The variables explained 1.8% of variance in social media addiction. It also registered F value $F(4,487)=2.26$, $p>0.01$. The personality trait neuroticism was significantly and positively related to social media addiction. The variable explained 1.4% of variance in social media addiction. It also registered significant F value $F(1,486)= 6.91$, $p<0.01$. The result showed total 3.2% variance. Thus H2c was supported. The result of regression analysis is reported in table 4.13 given below.

Table 4.13

Hierarchical Regression result indicating Effect of Personality Traits (Neuroticism) on Social Media Addiction (N=492)

Variables		β
Block 1	Age	.12
	Gender	.03**
	Education	-.05
	Monthly Family Income	-.02
	ΔR^2 %	1.8
Block 2	Neuroticism	.11**
	ΔR^2 %	1.4**
Total	ΔR^2 %	3.2**

** $P < 0.01$

* $P < 0.05$

H3: Social media use motives type (extrinsic and intrinsic) will moderate the relationship between Big Five Personality Traits and social media addiction. So hypotheses 3 posits that:

H3a: Motives types (extrinsic and intrinsic) will moderate the relationship between agreeableness and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3b: Motives type (extrinsic and intrinsic) will moderate the relationship between extraversion and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3c: Motives types (extrinsic and intrinsic) will moderate the relationship between conscientiousness and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

H3d: Motives types (extrinsic and intrinsic) will moderate the relationship between neuroticism and social media addiction with the relationship being stronger for users scoring high on extrinsic motive.

H3e: Motives types (extrinsic and intrinsic) will moderate the relationship between openness to experience and social media addiction with the relationship being stronger for users scoring high on extrinsic motives.

To test hypothesis 3a, hierarchical multiple regression was performed to analyze the effects of type of motives of social media use (extrinsic and intrinsic) on the relationship between agreeableness (one of the five components of personality traits) and social media addiction. In first block, gender was entered as a controlled variable. Other demographic variables age, level of education and monthly family income were removed from equation as they did not show any significance in the process of regression. Controlling variables gender contributed significantly. The variable explained 1.5% variance with significant value of $F(1,490)=7.68$, $p<0.01$. In block 2 one of the components of personality traits, agreeableness as independent variable and extrinsic motives and intrinsic motives as moderating variable were entered.

The variables showed additional 29.6% variance on social media addiction with $F(3,487)=68.72$, $p<0.01$. In 3rd block interaction term of agreeableness and extrinsic motives and interaction term of agreeableness and intrinsic motives were entered. The addition created 1.8% of variance with the significant value of $F(2,485)=6.58$, $p<0.01$. The outcome showed 32.6% total variance. Hence the interaction effect was found in the process meaning that interaction terms were positive and significant and the effect of agreeableness on social media addiction is

contingent on extrinsic as well as intrinsic motives as shown in the table 4.14. However, people more influenced with extrinsic motives showed more addiction than intrinsic motives as hypothesized. So H3a is supported.

Table 4.14

Hierarchical Multiple Regression result indicating Effect of Extrinsic and Intrinsic Motives on the Relationship between Personality Trait (Agreeableness) and Social Media Addiction (N= 492)

Variables		B
Block 1	Gender	.12*
	ΔR^2 %	1.5*
Block 2	Agreeableness	.34**
	Extrinsic Motives	.20**
	Intrinsic Motives	.22**
	ΔR^2 %	29.3**
Block 3	Agreeableness x Extrinsic Motives	.13**
	Agreeableness X Intrinsic Motives	.09**
	ΔR^2 %	1.8**
Total	ΔR^2 %	32.6**

** $P < 0.01$

* $P < 0.05$

To test hypothesis 3b, hierarchical multiple regression was performed to analyze the effects of extrinsic motives and intrinsic motives of social media use on the relationship between extraversion (one of the five components of personality traits) and social media addiction. To test hypotheses gender was entered as a controlling variable in block 1. Other demographic variables age, level of education and monthly family income were not included in the equation as they did not show any significance in the process of regression. Gender contributed significantly as a controlling variable which explained 1.5% variance with $F(1,490)=7.68$, $p<001$. In block 2 extraversion and extrinsic motives and intrinsic motives were entered

simultaneously. The variables showed increased 32% of variance on social media addiction which accounted for significant value of $F(3,487)=78.43$, $p<0.01$. In 3rd block interaction term of extraversion and extrinsic motives and interaction term of extraversion and intrinsic motives were entered. The addition created 2.9% of variance with the significant value of $F(2,485)=11.04$, $p<0.01$. The result showed 36.4% total variance. A significant interaction effect was found between extraversion and social media addiction for individuals with extrinsic motives. This suggests that the relationship between extraversion and social media addiction is influenced by extrinsic motives.

However, the intrinsic motives did not moderate the relationship positively and significantly between extraversion and social media addiction. This implies that the relationship between extraversion and social media addiction is not influenced by intrinsic motives in a significant and positive manner. Thus H3b is supported.

Table 4.15

Hierarchical Multiple Regression result indicating Effect of Extrinsic and Intrinsic Motives on the Relationship between Personality Trait (Extraversion) and Social Media Addiction (N= 492)

Variables		β
Block 1	Gender	.12*
	ΔR^2 %	1.5*
Block 2	Extraversion	.38**
	Extrinsic Motives	.19**
	Intrinsic Motives	.24**
	ΔR^2 %	32.0**
Block 3	Extraversion x Extrinsic Motives	.13**
	Extraversion x Intrinsic Motives	.06
	ΔR^2 %	2.9**
Total	ΔR^2 %	36.4**

** $P < 0.01$

* $P < 0.05$

To test hypothesis 3c, hierarchical multiple regression was performed to analyze the effects of extrinsic motive of social media use and intrinsic motives of social media use on the relationship between conscientiousness (one of the five components of personality traits) and social media addiction. To test hypothesis, gender was entered as a controlling variable in block 1. Other demographic variables age, level of education and monthly family income were dropped from equation as they did not show any significance in the process of regression. Gender contributed significantly as a controlling variable which explained 1.5% variance with the value of $F(1,490)=7.68$, $p<0.01$. Conscientiousness, extrinsic motives and intrinsic motives were entered in block 2. The added variables accounted for a significant amount of variance 23.7% on social media addiction with the value of $F(3,487)=51.43$, $p<0.01$.

In 3rd block, interaction term of conscientiousness and extrinsic motives and interaction term of conscientiousness and intrinsic motives were entered. The addition increased 3.1% of variance with the significant value of $F(1,485)=10.54, p>0.01$. Total variance was 28.3%. As the negative and significant interaction effect was found in the process, so the result showed that both extrinsic motives and intrinsic motives of social media use negatively and significantly moderated the relationship between conscientiousness and social media addiction. As the level of conscientiousness increased, social media addiction decreased in both groups of people with extrinsic and intrinsic motives. However, individuals with higher extrinsic motives experienced a greater decline in social media addiction compared to those influenced by intrinsic motives. This suggests that the effect of conscientiousness on reducing social media addiction may be more pronounced among individuals driven by extrinsic motives. Hence hypothesis H3d is supported.

Table 4.16

Hierarchical Multiple Regression result indicating Effect of Extrinsic and Intrinsic Motives on the Relationship between Personality Trait (Conscientiousness) and Social Media Addiction (N= 492)

Variables		β
Block 1	Gender	.12*
	ΔR^2 %	1.5*
Block 2	Conscientiousness	-.24**
	Extrinsic Motives	.25**
	Intrinsic Motives	.23**
	ΔR^2 %	23.7**
Block 3	Conscientiousness x Extrinsic Motives	-.42**
	Conscientiousness x Intrinsic Motives	-.22**
	ΔR^2 %	3.1**
Total	ΔR^2 %	28.3**

** $P < 0.01$

* $P < 0.0$

To test hypothesis 3d, hierarchical multiple regression was performed to analyze the effects of extrinsic and intrinsic motives of social media use on the relationship between neuroticism (one of the five components of personality traits) and social media addiction. To test hypothesis, gender was entered as a controlling variable in block 1. Other demographic variables age, level of education and monthly family income were dropped from equation as they did not show any significance in the process of regression. Gender contributed significantly as a controlling variable which explained 1.5% variance with $F(1,490)=7.68$, $p<0.01$. Neuroticism, extrinsic motives and intrinsic motives were entered in block 2. The variables showed additional 18.6% variance on social media addiction with the value of $F(3,487)=37.89$, $p<0.01$. In 3rd block, interaction term of neuroticism and extrinsic motives and interaction term of neuroticism and intrinsic motives were entered. The

addition increased 1.4% of variance with the value of $F(2,485)=4.43$, $p<001$. Total variance was 21.5%. As no interaction term was found between neuroticism and extrinsic motives. Therefore, it implies that there was no statistically significant interaction effect observed between these two variables in the process or analysis conducted. It indicated that extrinsic motives were not strong enough to change the direction or add some power to the relationship. So no effect of extrinsic motives was found on the relationship between neuroticism and social media addiction. It means there is no moderation in the process. While there is an interaction term found between neuroticism and intrinsic motives which means intrinsic motives moderated the relationship between neuroticism and social media addiction positively and significantly. It means intrinsic motives are strong enough to change the direction and strength of the relationship. The result showed that extrinsic motives did not moderate the relationship between neuroticism and social media addiction at all while intrinsic motive positively and significantly moderated the relationship between neuroticism and social media addiction. Thus H3c is not supported.

Table 4.17

Hierarchical Multiple Regression result indicating Effect of Extrinsic and Intrinsic Motives on the Relationship between Personality Trait (Neuroticism) and Social Media Addiction (N= 492)

Variables		β
Block 1	Gender	.12*
	ΔR^2 %	1.5*
Block 2	Neuroticism	.08**
	Extrinsic Motives	.25**
	Intrinsic Motives	.23**
	ΔR^2 %	18.6**
Block 3	Neuroticism x Extrinsic Motives	.00
	Neuroticism x Intrinsic Motives	.12**
	ΔR^2 %	1.4**
Total	ΔR^2 %	21.5**

** $P < 0.01$

* $P < 0.05$

To test hypotheses 3e, hierarchical multiple regression was performed to analyze the effects of extrinsic and intrinsic motives of social media use on the relationship between openness to experience (one of the five components of personality traits) and social media addiction. To test hypotheses 3e, gender was entered as a controlling variable in block 1. Other demographic variables age, level of education and monthly family income were removed from equation as they did not show any significance in the process of regression. Gender as a controlling variable contributed significantly and explained 1.5% variance with the value of $F(1,490)=7.68$, $p<0.01$. Openness to experience and extrinsic motives and intrinsic motives were entered in block 2. The added variables demonstrated additional 20.4% variance on social media addiction with $F(3,487)=42.38$, $p<0.01$.

In 3rd block interaction term between openness to experience and extrinsic motives and interaction term between openness to experience and intrinsic motives were entered. The addition of interaction terms created .2% of variance with the value of $F(2,485)=.51$, $p > 0.01$. Hence the interaction effect was not found with both extrinsic motives and intrinsic motives. Both the type of motives were not strong enough to influence or change the direction of relationship between openness to experience and social media addiction. So the result revealed that extrinsic as well as intrinsic motives did not moderate the relationship between openness to experience and social media addiction. So H3e is not supported.

Table 4.18

Hierarchical Multiple Regression result indicating Effect of Extrinsic and Intrinsic Motives on the Relationship between Personality Trait (Openness to Experience) and Social Media Addiction (N= 492)

Variables		β
Block 1	Gender	.12*
	ΔR^2 %	1.5*
Block 2	Openness to Experience	-.15**
	Extrinsic Motives	.25**
	Intrinsic Motives	.24**
	ΔR^2 %	20.4**
Block 3	Openness to Experience x Extrinsic Motives	.042
	Openness to Experience x Intrinsic Motives	-.01
	ΔR^2 %	.2
Total	ΔR^2 %	20.6**

** $P < 0.01$

* $P < 0.0$

Chapter 5

DISCUSSION, CONCLUSION AND RECOMMENDATIONS

5.1 Discussion

Below description highlights key outcomes and their implications, while also acknowledging its limitations and outlining directions for future research. Social media addiction and other related psychological issues have become more common in recent years. There are a few reasons for this. One is that social media has become more prevalent and accessible, with many people using it as a primary means of communication and connection. Another reason is that social media can be very addictive, as it provides a constant stream of stimulation and can be very gratifying. This can lead people to spend excessive amounts of time on social media, potentially at the expense of other important activities and relationships.

This exploratory study aimed to add body of knowledge to the existing research on social media addiction and to explore the factors that may contribute to this problem. This is an important area of research, as social media addiction can have negative consequences for individuals and society. By identifying the factors that lead to addiction to social media, interventions and preventative measures can be more effectively developed. The study applied the U&G model to investigate the elements that can cause people to use social media in a problematic way, also known as social media addiction.

The emergence of social media is a crucial element in today's world as we know, it was predicted by Ruggiero (2000) well ahead of his time. Ruggiero (2000) anticipated that the rise of social media would have a significant impact on society

and predicted changes in the fields of politics, economics and society as well as in the role and behaviors of individual media users. These predictions have been supported by the observed range of media consumption and the ways in which individuals use social media. We can now see that the original U&G theory supports this similar spectrum of media use. Musa et al. (2016) argued that the rapid advancement of media and computer technologies has led to a renewed interest in the Uses and Gratifications Theory, resulting in a surge of studies in this area. The constant development of new technologies has made the theory more relevant and applicable.

The Uses and Gratifications theory has gained significant attention as an effective means of understanding the motivations behind social media use among young adults, who are among the primary users of these platforms (Florenthal, 2019; Whiting & Williams, 2013). This theory allows researchers to identify and examine the specific needs and goals that drive social media use among people. So another purpose of the study is to delve into the reasons behind the widespread occurrence of behaviors such as compulsively using social media, particularly among young adults. This has also sparked a fresh round of research in this particular area. According to studies, among the large user base, students are the main consumers of social media platforms. The U&G theory has thus far shown to be the best theory to apply in order to carefully pinpoint and investigate the causes behind why young people use social media.

It has also been proved that usefulness and applicability of the Uses and Gratification theory on social media research cannot be understated because despite the differences the researchers have uncovered, it has been observed that there are significant parallels between new media and traditional media. Nevertheless, it must be acknowledged that unlike traditional media, which offered limited choices to

audience, the new media bring forth various new options and choices. Consequently, when the theory of Uses and Gratifications (U&G) is applied with true letter and spirit, it can effectively address the challenges and complexities associated with U&G (Briones & Janoske, 2015).

In present study, constructs like personality traits, social and psychological factors related to personality of an individual, extrinsic and intrinsic motives of social media use and social media addiction have been explored under the umbrella of U&G theory. The study applied T test to test hypothesis 1. The analysis revealed that female are more addicted to social media as compare to male. The one reason may be that in the society like Pakistan the young women are not much involved in outdoor activities like young men. They tend to stay at home and remain indulge in indoor activities including social media engagements. So they are more vulnerable to be the victim of social media addiction. This finding is consistent with previous studies.

According to research conducted by Sandvig (2016), it was found that female university students were likely to use Facebook more frequently than men. Thompson and Loughed (2012) also noted that there was a strong correlation between the reasons that female university students used Facebook and their level of addiction to the platform. In another study conducted by Simsek et al. (2019) females are found to have a higher likelihood of becoming addicted to social media compared to males. This finding has been supported by other studies, such as Guadagno et al. (2011) Kimbrough et al. (2013) and which also found that women tend to be more susceptible to social media addiction than men.

Ahmer and Tanzil (2018) conducted a study on medical students. The results showed that when compared to male medical students, female medical students had a

slightly greater percentage of internet addiction. Chae (2017) in a study revealed that as compare to males, female students showed significantly higher tendency for social media addiction. There has been conflicting research on the gender differences in overall internet use. Some studies have found no difference between men and women (Raacke & Bonds-Raacke, 2008), while others have found that men are more likely to engage in social media activities. Both sets of research agree, however, that men and women use social media for different reasons and in different ways.

The second hypothesis of the study explored the connection between personality traits and social media addiction. The Big Five personality traits have been extensively studied as possible predictors of social media addiction (Andreassen et al., 2011; Blackwell et al., 2017; Marino et al., 2018). However, most recent studies have only focused on a limited dimension of the Big Five personality traits, rather than offering a comprehensive understanding of their relationship to social media addiction. In contrast, the current study took a holistic approach by examining the impact of all five dimensions of the Big Five on social media addiction. The results showed that the personality traits of extraversion, agreeableness, openness to experience, conscientiousness, and neuroticism significantly contributed to the prediction of social media addiction.

The current findings demonstrated that the extraversion component has a positive and significant impact on social media addiction (H2a). Studies have shown that there is a positive correlation between extraversion and high social media consumption (Caci et al., 2014; Moore & McElroy, 2012). Social media platforms serve as a crucial venue for socializing, sharing information, and self-expression. The positive experiences individuals have through social media use can impact their offline behavior as well (Bowden-Green et al., 2020).

Individuals with high extraversion personality characteristics are known for being friendly, outgoing, energetic, verbally expressive and enjoying group activities. They have a strong desire for social interaction and are skilled at building relationships with people from diverse backgrounds. It is believed that their outgoing nature allows them to form more successful relationships with others. This positive trait can be deemed as a key quality for some individuals to use social media more. It is believed that some extravert individuals use social media more and enhance their real-life interactions with the help of this personality trait (Tekin & Turhan, 2021). The extraversion trait, seen as a positive attribute, may play a role in determining one's level of social media usage. It is suggested that extraverted individuals may have a higher tendency to use social media and that their social skills are further developed through this platform (Tekin & Turhan, 2021).

According to previous research (Blackwell et al., 2017), the correlation between extraversion and addictive behavior in regards to social media use can be attributed to the fulfillment of social needs and desires through these platforms. Extraverted individuals have discovered that social media provides them with an opportunity to express themselves and meet their social needs, activities that encourage social interaction and the development of online relationships, such as exchanging photographs with others, updating profiles, and giving comments and feedback to others, are typically undertaken by extraverted persons (Ehrenberg et al., 2008). This could encourage users to stay on social media platforms for a longer period of time, which could lead to excessive social media use. The outcomes obtained here confirmed past research results. Several previous research studies have suggested a positive correlation between extraversion and social media addiction.

(Andreassen et al., 2013; Gosling et al., 2011; Ross et al., 2009; Ryan & Xenos, 2011).

The result of H2b indicated that there is a positive significant relationship between agreeableness and social media addiction. High agreeable individuals are prosocial, warm and friendly toward others, agreeable people tend to be cooperative and get along well with others. They are often described as likable and pleasant to be around. They tend to value harmony in their relationships and may be more inclined to compromise or avoid conflict in order to maintain relationships. Individuals who are cooperative and compliant worry more about what other people expect of them, it is possible that people who are highly agreeable may use social networking sites (SNS) more extensively for conformity motivated reason, i.e., in order to conform to the expectations and norms of their social group, in an effort to avoid social rejection. The main goal of social networking sites (SNS) is to facilitate interpersonal communication and connection, and as such, responsiveness and interaction are considered shared norms among users. These behaviors help to create a sense of community and connection among SNS users.

Individuals who are agreeable are motivated to fulfil other people's expectations for high levels of interaction and response on SNSs, which could result in excessive SNS use. People with high levels of agreeableness may feel obligated to reciprocate friends' attention on SNSs due to their propensity to avoid social rejection and they are more careful about what people think about them and cautious about self-presentation as a result, they end up spending a lot of time engaging in online interaction. They might start to rely too much on SNSs and utilize them in unhealthy ways over time and their social media use may become mal adaptive which could lead to social media addiction. This result agrees with (Jensen-Campbell et al., 2002,

Servidio 2014; Randler et al., 2013, Tang et al., 2016). Conversely, disagreed with (Wilson et al., 2010).

The result about conscientiousness revealed that this particular personality trait is significantly but negatively associated with social media addiction (H2c). The result can be linked to the characteristics that high conscientious individuals possess such as self-discipline, responsibility, stability, reliability, ethics, good planning, organization, punctuality, and hard work. This suggests that individuals who possess these traits may be less prone to becoming addicted to social media. Individuals with high levels of conscientiousness tend to be highly motivated and goal-oriented, which may make them less prone to becoming addicted to social media. They may view social media as a distraction for their productivity and may be more likely to prioritize their goals and responsibilities over spending excessive time on social media.

Multiple studies have found that conscientiousness is negatively correlated with social media addiction. Ahmed and Tan (2022) found that high conscientiousness was a significant but negative predictor of social media addiction and Błachnio and Przepiorka (2016) found that conscientiousness was negatively associated with internet and social media addiction. Andreassen et al. (2012) found that conscientiousness was negatively correlated with scores on the Bergen Facebook Addiction Scale (BFAS). These findings suggest that people with strong conscientious traits may be less likely to become excessively reliant on or addicted to social media. This may be because conscientious individuals tend to utilize their time effectively and may perceive time spent on social media as an impediment to productivity as suggested by Ross et al. (2009) and Tang et al. (2016).

According to the results of this study, high openness to experiences personality dimension was found to have a negative influence on social media addiction (H2d). The analysis showed that there was not a positive relationship between these two variables. Openness is characterized by a receptiveness to unconventional ideas and a preference for variety, novelty, and intellectual curiosity. People who are high in openness tend to be imaginative and enjoy trying new and exciting things. They are practical thinkers who find inspiration in new challenges and experiences. These characteristics may make individuals high in openness less likely to develop a social media addiction, as they may be more inclined to seek out new experiences and challenges in real life rather than relying on social media for novelty and stimulation. This is supported by the findings of Błachnio and Przepiorka (2016).

The results of this study suggest that individuals with the dominant characteristics of open to new experiences, may be less prone to social media addiction. This may be because they find the information they access on social media unappealing or boring and sometime repetitive and monotonous due to their desire for novelty and creativity. Additionally, they may be dissatisfied with the user experience on social media, leading them to spend less time on these platforms. The findings of this study are consistent with previous research showing that openness is not a strong predictor of social media addiction (Błachnio & Przepiorka, 2016; Ko et al., 2012; Kuss et al., 2013; Müller et al., 2013; Tang et al., 2016). However, other studies have found an association between openness and social media addiction (Correa et al., 2010c; Guadagno et al., 2008; Quintelier & Theocharis, 2013). Overall, it appears that openness may have a mixed relationship with social media addiction, with some studies finding a negative correlation and others finding a positive one.

The findings showed that high neuroticism dimension had a positive impact on social media addiction (H2e). People with neurotic personality traits, such as anxiety, emotional instability, worry and sense of insecurity may be more prone to social media addiction. This may be due to their negative emotions and discomfort with in-person interactions, leading them to seek solace and connection through social media. They may spend longer periods of time on these platforms and prefer to hide their identity and mask themselves while using them. People with high levels of neuroticism may have difficulty building healthy relationships in the real world and may turn to social media as a way to cope with feelings of loneliness and fulfill their need for social interaction. In one study, individuals with neurotic tendencies preferred internet-based interactions over face-to-face interactions and were more likely to use the internet as a means of self-expression and to establish a sense of attachment with others (Amichai-Hamburger & Vinitzky, 2010). These findings are supported by previous research, which has also found that people with neurotic tendencies are more prone to internet addiction and prefer asynchronous online. (Andreassen et al., 2013; Andreassen et al., 2016; Correa et al., 2010; Hong et al., 2014; Marengo et al., 2020). Thus, the results for personality traits and social media addiction largely confirmed our predictions with regard to all five hypotheses.

The main purpose of this research was to investigate how extrinsic and intrinsic motivations influence the connection between personality traits and social media addiction and to assess whether these motivations can change the intensity and direction of this connection. Employing social media use motives perspective, the study presented extrinsic motives (social interaction, information sharing, self-presentation) and intrinsic motives (entertainment, pass time, escapism) as critical moderators or shapers of the relationship between predictor and criterion variables.

Present empirical analysis revealed that extrinsic and intrinsic motivation played a meaningful role in determining the nature and the strength of the relationship between the Big Five personality traits and social media addiction. The presented results provided important insights into the connection of Big Five personality traits and motivation of social media use (intrinsic motivation and extrinsic motivation). According to evaluation, each sort of concept added a different variance to the factor that predicted social media addiction.

Extrinsic motivation may be an important factor in predicting problematic social media use, often more important than intrinsic motivation. Researchers have recently recognized the positive effects of extrinsic motivation on personality traits notably in the area of social media activity (Shen et al., 2020). In present study extrinsic motivation, as compared to intrinsic motivation appeared as a more meaningful and significant moderator that changed the strength and direction of relationship between three personality traits (agreeableness, extraversion and conscientiousness) and social media addiction. Extrinsic motives significantly and positively moderated the relationship between extraversion and social media addiction, agreeableness and social media addiction while significantly but negatively moderated the relationship between conscientiousness and social media addiction.

The result of H3a revealed that people influenced by extrinsic as well as intrinsic motives both are addicted to social media but extrinsic motives influenced more agreeable people than people influenced by intrinsic motives (Extrinsic, $\beta = .13^{**}$, Intrinsic, $\beta = .09^{**}$). It means agreeable individuals who are more influenced by extrinsic motivations are more likely to be addicted to social media, though agreeable individuals are also motivated by intrinsic motives also vulnerable to addiction but they are less likely to be addicted.

H3b revealed that extrinsic motives positively influenced the relationship between extraversion and social media addiction while intrinsic motives did not (Extrinsic, $\beta = .13^{**}$, Intrinsic, $\beta = .06$). It means people influenced by extrinsic motives showed addiction to social media while in the case of intrinsic motives people were not influenced by it. The result showed that extravert people are more interested in information sharing, social interaction and self-presentation than entertainment, pass time and escapism. Which means they acted exactly as per characteristics of their personality.

It is generally believed that extraverted people may be more influenced by extrinsic motives than intrinsic motives. This is because extraverted individuals tend to be more sociable, outgoing and assertive. They may place a higher value on social status and are more concerned about self-presentation. Intrinsic motivation, on the other hand, comes from within the individual and is driven by personal satisfaction, interest, and enjoyment in the activity itself and it has nothing to do with outer incentives and validation. Supporting our expectation, the association between (agreeableness, extraversion) and social media addiction became stronger in a situation where the person had strong extrinsic motivation.

Individuals with extraversion and agreeableness characteristics seemed to act more strongly on their innate trait when they were strongly motivated by their extrinsic motives. Thus, extrinsic motivation activated the functioning of an individual's personality trait, supporting U&G theory. Interestingly, both extrinsic and intrinsic motivation did not positively moderate the relationship between conscientiousness and social media addiction (Extrinsic, $\beta = -.42^{**}$, Intrinsic, $\beta = -.22^{**}$) (H3c). Both the motives influenced the relationship between conscientiousness and social media addiction negatively and significantly.

It means when personality trait conscientiousness is strong or high the likelihood of social media addiction decreases. Conscientiousness as a main effect showed negative influence on social media addiction. The motives type extrinsic and intrinsic also influenced negatively the relationship between conscientiousness and social media addiction. The results showed that extrinsic motives had a stronger impact compared to intrinsic motives. Specifically, the relationship between conscientiousness and social media addiction was negatively significant when an individual had strong extrinsic motivation. It seemed, people with the characteristics of conscientiousness act more strongly on their natural trait when they were motivated by their extrinsic motives as compare to intrinsic motive.

It may be due to the fact that conscientiousness is a personality trait characterized by responsibility, regularity, and a tendency to plan and think before acting. The previous research suggested that individuals who score higher in conscientiousness may be less likely to develop an addiction to social media (Tang et al., 2016) as conscientious individuals tend to be more self-disciplined and able to regulate their behavior, including their use of social media. Prior research has established that neuroticism is a robust predictor of social media addiction (Błachnio, Przepiorka, & Pantic 2016; Mahmood & Farooq, 2014). It is interesting to note that extrinsic motive of social media use did not have any moderating effect on the relationship between neuroticism and social media addiction, while intrinsic motives significantly moderated the relationship between neuroticism and social media addiction (Extrinsic, $\beta = .00$, Intrinsic, $\beta = .12^{**}$) (H3d).

The outcome is surprising. Previous research has shown that individuals with high levels of neuroticism and extrinsic motives may be more prone to social media addiction. One study conducted by Wang et al., (2015) found that individuals who

scored higher in neuroticism were more likely to report higher levels of social media addiction, and that this relationship was moderated by the desire for social connection (social interaction) and recognition (self-presentation) (components of extrinsic motives). This suggests that individuals who are more prone to negative emotions and who have a strong need for social connection and recognition may be more at risk for developing an addiction to social media. While outcome of the present study contradict the previous findings. It means social interaction, information sharing and self-presentation failed to create any impact on the relationship between neuroticism and social media addiction.

Conversely, the intrinsic motives which is comprised of entertainment, pass time and escapism significantly moderated the relationship. The result indicates that neurotic people are introvert as well. They love isolation and prefer to spend time on their own. They try to escape realities of life and tend to live in the world of fantasy. That is why they are not motivated by extrinsic motives rather influenced by intrinsic motives. The people with neurotic traits, are by default in a negative state of mind (Abbasi, 2016), The motives like entertainment, pass time and escapism provide them relief from depression, stress and negative emotions.

We did not find any support that extrinsic and intrinsic motives moderate the relationship between openness to experience and social media addiction (Extrinsic, $\beta = .042$, Intrinsic, $\beta = -.01$) (H3e). This suggests that the role of openness in SNS addiction may not depend on extrinsic and intrinsic motives. The outcome indicated that neither of the motivations is compelling enough to produce new impact on the relationship. People who score highly on openness may not view using SNSs as a unique and new experience that can satisfy their urge to experiment and seek for novelty given that SNSs have already been sufficiently explored as a popular and

widely used social medium (Ross et al., 2009). Due to this, it's possible that their usage of social media isn't prompted by intrinsic and extrinsic motivations to the point where it becomes excessive and troublesome.

In other words in the case of openness to experience as a moderator, extrinsic and intrinsic motives are not strong enough to change the direction of relationship between openness to experience and social media addiction. So we can conclude that for moderating effect, both intrinsic and extrinsic motives can lead to social media addiction, it is possible that extrinsic motives may have a stronger influence. One reason for this is that extrinsic motivators are often more tangible and immediate than intrinsic motivators. For example, receiving appreciation in the form of likes and comments on information sharing, pictures and videos sharing, social identity and image building on a social media platform can provide a quick hit of validation and recognition, which can be highly rewarding and gratifying.

Another reason extrinsic motivation may be a stronger predictor of social media addiction is that it can lead to a cycle of reinforcement. When an individual receives external rewards for their social media activity, such as likes or praising comments, it can encourage them to continue posting in order to receive more of these rewards. This can create a vicious cycle where the individual becomes increasingly reliant on external validation and recognition in order to feel good about themselves. Overall, while both intrinsic and extrinsic motivation can play a role in social media addiction, extrinsic motivation however, often influence more strongly due to its immediate, tangible rewards and the potential for a reinforcing cycle.

5.2 Prevalence of Social Media Addiction among Youth

The current study also investigated the prevalence of social media addiction among young adults. The findings revealed that 33% of social media users were identified as problematic users of social media. To determine problematic use of social media on the BSMAS, the study employed a cutoff score of 19 or higher (out of 30), as recommended by Bányai et al. (2017). The study utilized a method to categorize the risk of social media addiction into two groups: 'at-risk' and 'no-risk' or 'low-risk'. Individuals who scored 19 or higher were classified as 'at-risk', which accounted for 33% of the sample. Conversely, individuals who scored below 19 were considered to be in the category of 'low-risk' or 'no-risk' of social media addiction. Bányai et al. (2017) suggested that a score of 19 or above on the BSMAS indicates problematic use of social media or addiction to social media. This cut-off score has been widely utilized in several recent studies on social media addiction, such as Turel et al., (2018), Tosuntaş et al., (2020), Watson et al., (2020), and Leung et al., (2020).

The current study revealed a high prevalence rate (33%) of social media addiction among university students, which is in line with previous research that found 24 to 35% of Asian students were classified as addicted to social media (Andreassen, 2015; Kuss & Griffins, 2011). According to Mamun and Griffiths (2019), a low cutoff score of 18 out of 30 on the BSMAS identified 39.7% of university students who primarily used Facebook as being at risk of developing a Facebook addiction.

In contrast, Ahmed and Hossain (2018) found that the rate of potential Facebook addiction among university students was 19%, using a cutoff score of 20 out of 30. Therefore, these disparities can be attributed to the use of different cutoff

scores when applying the same scale, with the prevalence of problematic social media usage decreasing as the cutoff score increases.

The frequency of problems including depression, tension, and anxiety among students is increasing as the activities on social networking sites are prevailing. Students will suffer major social and personal consequences if they don't control how much time they spend on social media, how extensively they use it and why they use it. Many students now use social networks on a daily basis because they offer a multitude of opportunities, particularly in their area of study. However, these platforms also have a downside, acting like a double-edged sword. If students don't control their usage of these networks, they'll get hooked to them and experience a variety of negative effects, particularly on their mental and academic well-being.

5.3 Social Media Addiction in Pakistani Context

Social media addiction is prevailing across the globe among all age groups and other socio-demographic categories, but it is more prevalent among younger generation and the younger adults are more likely to suffer from it. Likewise, social media addiction usage, indicators and patterns vary depending on the cultural and ethnic context. Investigating the indicators or predictors within the cultural context is therefore pertinent. The participants in this research are students from Pakistan who studied at various universities and fall within an age range of 18 to 35 years. The results confirmed that young adults, particularly students, have a strong inclination towards social networking sites (SNS) due to the leisure activities they offer, such as socializing, entertainment, sharing information, maintaining relationships, and the ease of access and flexibility of various platforms.

Many educational institutions provide free and fast internet access in dormitories, on campus grounds, and in classrooms. Students can effortlessly connect to Wi-Fi using their smartphones in any location. These kinds of facilities encouraged young people and students to become addicted to SNS. In contrast to industrialized nations, government authorities of Pakistan have not adopted any regulations regarding excessive usage of social networking. This is because Pakistan is a developing nation in terms of technology. Pakistan has seen recurrent bouts of economic instability, low literacy rates and organized violence during the past few years, accompanying the Covid-19 epidemic. In this regard, addiction in particular and mental health issues in general have drawn attention of the researchers .

Even though numerous surveys and research have shown the frequency and danger signs of chemical addiction in Pakistan, there are few empirical studies showing the prevalence and risk factors of nonchemical addictions like technological addiction. The current study was designed to ascertain the indicators and prevalence of social media addiction in the local population. In the context of personality traits and social media addiction most of the studies have been conducted in Western environment and setting while this study has been conducted in the context of Pakistani culture and Muslim social setup.

5.4 Contribution to Clinical Treatment

The studies conducted on social media addiction in the context of countries like Pakistan can provide valuable insights that contribute to the clinical treatment of this problem. Such studies can be beneficial in the following ways:

- **Cultural Relevance:** Pakistan, like any other country, has its unique cultural, social, and technological dynamics that influence social media usage patterns

and addiction. Conducting studies specific to Pakistan allows for a deeper understanding of the cultural factors that contribute to social media addiction in this context. This knowledge can inform clinicians about the cultural nuances and sensitivities that need to be considered when developing treatment strategies.

- **Identifying Country-Specific Risk Factors:** Research conducted in Pakistan can help identify specific risk factors that are prevalent in the country. These could include factors such as cultural norms, social pressures, and technological accessibility that contribute to social media addiction. Understanding these country-specific risk factors is crucial for clinicians to tailor interventions and address the root causes of addiction effectively.
- **Treatment Adaptation:** Findings from studies in Pakistan can shed light on the effectiveness and appropriateness of existing treatment approaches for social media addiction in this particular context. Researchers can assess whether these approaches need to be adapted or modified to better suit the cultural and social landscape of Pakistan. This can lead to more targeted and culturally sensitive clinical interventions.
- **Bridging the Awareness Gap:** Studies on social media addiction in Pakistan can help raise awareness about the problem and its consequences within the country. By highlighting the impact of social media addiction on individuals' mental health and well-being, these studies can promote public dialogue and advocacy for better clinical services and resources to address the issue.
- **Collaborative Efforts:** Research conducted in Pakistan can foster collaboration between local clinicians, researchers, educators and international experts. This collaboration allows for the sharing of knowledge, experiences,

and best practices in treating social media addiction. By leveraging the collective expertise, clinicians in Pakistan can benefit from global perspectives and innovative approaches to tackle the problem clinically.

5.5 Implications and Recommendations

There are various research implications of our findings: Our conceptual growth and empirical results offer a solid groundwork for future research that may deepen our comprehension of how personality influences SNS addiction. Numerous studies use the innate tendencies of personality factors to explain variations in technology usage and abuse. Practically speaking, it may affect how psychotherapies are developed to address vulnerable personality features and varied degrees of social media addiction. These findings shed light on the role that social media plays as a compensating mechanism for satisfying gratification needs.

The findings of this study may also have an impact on how social media features are created, especially if they are not intended to promote highly compulsive usage. Future research can concentrate on the underlying motivation and gratifications that lead people to use substances at an addicted level. It can also be crucial to look at why and how social networking sites are still widely used and growing in popularity around the world despite their negative effects. For individuals who use social media regularly, the study can raise awareness of the potential risks and negative consequences associated with excessive use. It can help individuals identify whether they have addictive behaviors and motivate them to seek help or adopt healthier social media habits.

For families, the study can provide insights into how to recognize and address social media addiction in their children or loved ones. It can help them understand the

importance of monitoring social media usage and promoting healthy communication and relationship-building practices. The study of social media addiction has several implications for educational institutions, particularly for universities. Firstly, universities can develop policies and guidelines regarding the use of social media by students, staff, and faculty members. These policies can educate users on the negative effects of excessive social media use and provide guidance on healthy and responsible use of social media.

Secondly, universities can organize awareness campaigns and training sessions on social media addiction for students, staff and faculty members. These campaigns can highlight the warning signs of social media addiction and provide strategies for users to manage their social media use effectively. Thirdly, universities can incorporate digital literacy courses into their curricula to educate students on the responsible use of technology, including social media. Such courses can cover topics such as digital citizenship, online privacy, and digital well-being. Finally, universities can collaborate with mental health professionals to provide counseling and support services for students who may be struggling with social media addiction. These services can provide personalized interventions and support to help students manage their social media use and address any underlying mental health concerns.

The study of social media addiction has important implications for the mental health sector as mentioned earlier. Given that excessive social media use has been linked to negative mental health outcomes, such as depression, anxiety, and stress, mental health professionals need to be aware of the potential risks associated with social media use. Clinicians and mental health professionals can benefit from the research on social media addiction to better understand the potential impact of excessive social media use on their patients' mental health. They can use this

knowledge to develop treatment plans and interventions that address social media addiction and related mental health concerns. Additionally, clinicians can provide psychoeducation to their patients about the potential risks of excessive social media use and teach them healthy ways to manage their social media habits.

The findings from research on social media addiction can inform the development of interventions and treatments aimed at addressing problematic social media use. For example, interventions that target specific personality traits associated with social media addiction, such as low conscientiousness or high neuroticism, could be developed to help individuals reduce their risk of developing addictive behaviors on social media. Furthermore, mental health professionals can use social media as a tool to connect with and provide support to individuals struggling with addiction. Social media platforms can be used to disseminate information about addiction, provide online support groups, and offer counseling services.

For society as a whole, the study can contribute to the development of policies and guidelines for responsible social media use. It can help raise awareness about the impact of social media addiction on mental health and social well-being and promote digital literacy and responsibility. Further studies should focus on exploring ways to utilize social networking platforms for productive use of time, building algorithms that prioritize human wellness, discourage excessive use, and encourage cooperative behaviours.

5.6 Limitations

It's important to acknowledge some limitations when evaluating the study's results. Despite careful planning and execution, the study has the following limitations:

- The current study utilized a cross-sectional design. To obtain a more comprehensive understanding of young people's addiction to social media, it is recommended that a panel study with a longitudinal design be conducted in the future. Such a study would allow for the examination of the same sample at multiple time points, over varying intervals, leading to a more in-depth understanding of the phenomenon. As participants are followed for a longer period of time with a longitudinal design, there are more data points available for measurement. As a result, the researcher would be provided with stronger evidence of the directionality of the association between the variables, which was otherwise challenging to assess with a cross sectional survey. Furthermore, conducting qualitative studies, such as in-depth interviews and focus groups, can provide a better understanding of the subjective experiences of individuals who struggle with social media addiction. Such studies can help identify factors that contribute to social media addiction, and can inform the development of interventions that are tailored to the needs of specific individuals.
- Self-report measures were used to underpin the results which are prone to social desirability and inaccuracy. To achieve more objective results, future studies could consider using real-world data from day to day activities of social media users and conducting content analysis to gain a more objective outcome.
- In recent years, social media has gained enormous popularity among young people. However, addiction to social media may affect not just teenagers and young adults but also white-collar and blue-collar employees, among others. Future studies can focus on these groups as well. Moreover, comparing

personality traits, use motives and social media addiction across different cultures and age groups can provide insights into how personality traits and social media addiction may differ across diverse populations. This can help identify cultural and developmental factors that may impact the relationship between personality traits and social media addiction.

- Although extrinsic and intrinsic motives have been explored in prior studies but the moderating effects of extrinsic and intrinsic motives with the specific construct drawn from U&G grouped in the form of extrinsic and intrinsic motives have been researched for the first time. As a result, this study's results cannot be directly compared to previous studies.
- Future studies should also focus on practical guidance and interventions to lessen social media addiction among not just the younger generation but also other age groups as well.
- Conducting intervention studies that target specific personality traits may help determine whether addressing certain personality traits can reduce the risk of social media addiction. Such studies can also help identify effective interventions for individuals who are already struggling with social media addiction.

5.7 Conclusion

Summarizing the outcomes of this work and comparing the present findings with previous evidence on the topic our results confirmed the moderating role of motivation and predicting role of personality factors in relation to social media addiction. This study provides a valuable contribution to the field of social media research by presenting a comprehensive perspective supported by empirical evidence

and an integrative approach, examining the relationship between the Big Five personality traits and addiction to social media.

Moreover, the results of our investigation emphasize the significance of the Uses and Gratifications approach. By applying U&G approach, we can gain insights into the motivations that drive individuals' media consumption behaviors. Our research demonstrated that the connection between an individual's personality traits and their addiction to social media varies in magnitude and direction depending on their level of extrinsic and intrinsic motivations. The interplay between motivation and personality traits that drive addiction to social media can be better comprehended by analyzing the distinct impact of intrinsic and extrinsic motivations on the Big Five personality traits.

Future research could shed more light on the processes underlying social media addiction by expanding the theoretical framework to include contextual moderators, allowing for a better understanding of individual behavior in different communication technology environments. This research made a valuable contribution to the field of social media use by examining the relationship between personality traits and usage motives. The goal of the study was to have a significant impact in two clear ways:

First, the findings of the study show that the Uses and Gratification Theory is still very authentic and relevant in the modern era. Since the use of social media networks stays constant among young generation, future scholars should continue to be aware and cognizant of its relevance and approach (Whiting & Williams, 2013). Second, this research work might widen the scope of the phenomena under consideration and give researchers more options to investigate when it comes to

examining social media addiction its causes and influences. It is anticipated that this research will have a favourable impact on the theoretical underpinnings of current mass communication studies as well as the literature.

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APPENDIX

QUESTIONNAIRE

Questionnaire: Relationship Between Personality Traits and Social Media Addiction

The main aim of this questionnaire is to collect data for academic research only. Kindly fill this questionnaire accurately and completely. Your answers would be kept strictly confidential and your identity will not be disclosed to anyone.

1. Gender:

- a) Male
- b) Female

2. Age Group:

- a) 18 to 23 years
- b) 24 to 29 years
- c) 30 to 35 years
- d) Over 35 years

3. Educational Status (enrolled in)

- a) Undergraduate (BS/MSc)
- b) Masters (MS/MPhil)
- c) Doctorate (PhD)

4. Monthly Family Income:

- a) Less than PKR 30,000/-
- b) PKR 30,000/- to PKR 60,000/-
- c) PKR 60,000/- to PKR 90,000/-
- d) PKR 90,000/- to PKR 120,000/-
- e) More than PKR 120,000/-

Big Five Personality Traits

Please read all the statements and indicate to what extent you agree or disagree with each statement:

1 - Strongly Disagree 2 - Disagree 3 - Neutral 4 - Agree 5 - Strongly Agree

S. No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
I see myself as someone who:						
1.	Is talkative					
2.	Tends to find fault with others					
3.	Performs his duty/job efficiently					
4.	Sometimes feel depressed					
5.	Is original, come up with new ideas					
6.	Is reserved					
7.	Is helpful and unselfish with others					
8.	Can be somewhat careless					
9.	Is relaxed, handles stress well					
10.	Is curious about many different things					
11.	Is full of energy					
12.	Starts quarrel with others					
13.	Is a reliable person					
14.	Can be tense					
15.	Is creative and think deeply					
16.	Generates a lot of enthusiasm/excitement					
17.	Has a forgiving nature					
18.	Tends to be disorganized					
19.	Worries a lot					
20.	Has an active imagination/visualization					
21.	Tends to be quiet					
22.	Generally trustworthy					
23.	Tends to be lazy					
24.	Is emotionally stable not easily upset					
25.	Inventive and love to do new things					
26.	Confident and can stand up for his point of view					
27.	Can be cold in attitude and like to live alone					
28.	Keeps doing the work until completed					
29.	Can be moody					
30.	Admires beauty and value the artistic things					
31.	Is sometimes shy and inhibited					

S. No.	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
32.	Considerate and kind to almost everyone					
33.	Does things efficiently					
34.	Remains calm in tense situation					
35.	Prefers work that is of routine nature					
36.	Outgoing, sociable					
37.	Sometimes rude to others					
38.	Makes plan and execute/complete them					
39.	Gets nervous easily					
40.	Likes to think over issues, play with ideas					
41.	Has few artistic interests					
42.	Likes to cooperate with others					
43.	Is easily distracted and diverted					
44.	Has a good taste of art, music or literature					

Social Media Addiction

Please mark the appropriate answer with anyone of the following options:

1 - Very Rarely 2 - Rarely 3 - Sometimes 4 - Often 5 - Very Often

S. No.	Statement	Very Rarely	Rarely	Sometimes	Often	Very Often
1.	Spend a lot of time thinking about social media or planning about using social media					
2.	Use social media to forget my personal problems, tensions and depression etc.					
3.	Feel an urge or have inner feeling to use social media more and more					
4.	Feel frustrated whenever I am stopped from using social media for any reason					
5.	Tried to cut down on or lessen the use of social media without any success					
6.	Use social media too much that it affects negatively my daily routine, education/job					

Social Media Use Motives Scale

Extrinsic Motives

Please mark the appropriate answer with anyone of the following options:

1 - Never 2 - Rarely 3 - Sometimes 4 - Often 5 - Always

S. No.	Statement	Never	Rarely	Sometimes	Often	Always
Social Interaction						
1.	I use social media to establish my social identity					
2.	I use social media to keep myself updated about social events like birthdays, marriages, parties, musical events, exhibitions etc.					
3.	I use social media to keep in touch with family, friends and relatives					
4.	I use social media to make new friends					
Information Sharing						
5.	I use social media to share personal information like latest pictures, videos, activities and events					
6.	I use social media to share opinion with family members, friends and relatives					
7.	I use social media to share new ideas and knowledge					
8.	I use social media to share latest news and information					
Self-Presentation						
9.	I share pictures, videos and different quotes etc. that reflect my personality					
10.	I use social media to share my good scores and positive achievements with friends on social media					
11.	When I am blamed for something, I make excuses on social media or justify my behaviour so as to reduce negative impression others have of me					
12.	I praise my friends on their achievements on social media so that they praise me in return					

S. No.	Statement	Never	Rarely	Sometimes	Often	Always
Intrinsic Motives						
Entertainment						
1.	I use social media because it provides enjoyment					
2.	I use social media to play games					
3.	I use social media to listen to music and watch videos					
4.	I use social media because it is amusing to see others funny sharing					
Pass Time						
5.	I use social media when I have idle time					
6.	I use social media in the class/work to pass time					
7.	I use social media when I am bored					
8.	I use social media when I don't have anything better to do					
Escapism/Diversion						
9.	I use social media to get away from pressure and responsibilities					
10.	I use social media to put in pending something I must be doing					
11.	I use social media because it takes me to the world of fantasy					
12.	I use social media because it is an escape from reality					