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Published in the USA  
 International Journal of Media and Information Literacy  
 Issued since 2005  
 E-ISSN 2500-106X  
 2022. 7(2): 293-304

DOI: 10.13187/ijmil.2022.2.293  
<https://ijmil.cherkasgu.press>



## Personality Traits, Narcissism and TikTok Addiction: A Parallel Mediation Approach

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### Abstract

Short-form video apps have gained huge success and popularity in recent years. The addictive behavior towards these short-form video apps has not been fully explored yet. This study focused on the personality traits and narcissistic behavior of university students about whether they use TikTok or make a short-form video for getting attention to have self-esteem, need to belong, or need for admiration and how much time they spent on these social sites. The study focused to examine TikTok addiction by surveying 350 university students through a purposive sampling technique. The study found that a positive correlation exists between independent, dependent, and mediating variables. In addition to this, the results showed that only grandiose narcissism and vulnerable narcissism have a direct effect on the TikTok addiction. On the other hand, the need for admiration has also a direct effect on TikTok addiction. For the specific indirect effect, neuroticism, which is a personality trait, has no indirect effect on the addition of TikTok through the mediators like need to belong, need for admiration, and self-esteem. This study highlights the contribution towards the media-related research that can be identified by the general public. Hence policymakers can make strategies for social media users to overcome addictive tendencies.

**Keywords:** TikTok addiction, narcissism, personality traits, short-form video, self-esteem, need to belong, need for admiration.

### 1. Introduction

With the help of short video making films, nowadays people are getting attention on TikTok where they can make 15 seconds videos by using different tools of editing and filters. This short film-making mobile application is a Chinese creation that has already gained momentum in the whole world (Schellewald, 2021, Yurieff, 2018). According to the google play store record, 2 billion+ users have downloaded TikTok worldwide (Schellewald, 2021). This shows that this short video mobile application has also gained popularity and people use it due to its vast and multiple functions of creating one's desire form of video while showing different kinds of activities. TikTok has provided a function of self-promotion but its addiction may cause psychological problems and further addiction to social networking sites has been associated with personality traits (Ho et al., 2017). The content of TikTok is based on music in which users just need to make videos and act on different dialogues and songs; subsequently, it expanded the user's tenacity.

A recent study has found the relationship between social media addiction and traits of personality of the users (Blackwell et al., 2017). They have found that the difference in the personality of individuals in terms of attachment can increase their knowledge and the potential level of addiction. Due to the increase in the means of communication and usage of social media,

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there is a dire need to analyze the situation according to the demands of the era. So nowadays it is common that people spend time on social networking sites that ought to spread different aspects of communication and information among people (D'Arienzo et al., 2019, Ryding, Kuss, 2020). Social media have been used by many organizations to communicate their messages and information among their users. Hence the success and usage of social media have depended on the phenomena of its usage as it is a platform that encourages learning and sharing information through its different features (Oh, Syn, 2015).

People use this short form of a video application for their self-promotion through various forms of filters and video editing tools that can cause addiction as this application has also offered its users some sort of customized content as per their preference (Blackwell et al., 2017; Fabris et al., 2020). Generally, social media is used to minimize social distances. Similarly, addiction to social networking sites can cause poor psychological, psychosocial, poor quality of educational attention as well as a decline in the quality of an individual's relationships (Ho et al., 2017; Lin et al., 2020). By doing communication on social media, it has made life easier, but it has made anxious people more insecure, and they seek reassurance in terms of their relationships. Life on social media gives chance to people to uncover their aspirations as well as their accomplishments to enormous quantities of individuals and consistently people who are high on narcissism are probably going to utilize social media for self-promotion (Burnay et al., 2015).

Personality traits such as neuroticism and extraversion are antecedent to addiction and excessive usage of social media as these two traits are likely to adopt or develop social media addiction excessively (Ho et al., 2017; Müller et al., 2016). So, by keeping this information, this study further aims to study the direct or indirect link of these two personality traits with the addiction to using TikTok. Although the short-form video application has soared in ubiquity, thus this extremely quick improvement has incited open worry about the danger of unreasonable use. The immediate impact of neuroticism via social networking media use and dependence hence utilizes neuroticism as a directing variable that presently cannot seem to be led. Exceptionally neurotic people might be sensitive to the social and specialized components because these components assist them with creating connections to short-shape video applications and satisfy the voids in their lonely lives. Hence there is a positive link between the satisfaction with life and trust among users and are significant phenomena with the basic connection, characteristics, and information sharing conduct on social media usage (Pour, Taheri, 2019).

This era has been marked by the growth of social or new media which is now trending under the title of new media. This form of media has been using by many people for many years as it is a unique way of sharing information under the title of infotainment. It has become a fundamental part of people's daily life as it has become a way to communicate and connect with other people for making lives better in the context of communication. Usually, people use social media via smartphones and laptops. Different people use different social media sites according to their needs and wants (Scott et al., 2018).

With the rapid development in technology and the field of programming software, many mobile applications have formed and are paying more attention to attracting the attention of their users. In the underlying phase of its usage, it begins from the necessities of target users and structure and features highlights that meet the prerequisites of their loyal users. At that point, it has connected with the procedure of growing with the market strategy thus involves a powerful piece of effective market plans (Oyibo, Vassileva, 2019). Hence the formation of the short-form mobile application, TikTok aimed to target the broader level of the young people market, and according to the needs of media users and trends this mobile application, design to produce useful and attractive features.

Social media has become the prevalent phenomena hence it has contributed its role while causing addiction in which personality trait such as extraversion and neuroticism has positively associated with the media use and internet addiction (Rozgonjuk et al., 2020, Tandon et al., 2020). Extraverted individuals tend to use social media for social interaction which can lead to addiction as they have craved for this interaction whereas neuroticism is also a predictor of addiction. Thus, people with high neuroticism may have high anxiety hence their attachment style may affect social media addiction (Gao et al., 2017).

Previous studies have identified two types of Narcissism. Grandiose (explain by high in self-esteem and attitude or arrogance) and vulnerable (explain by hypersensitive, more interested in controlling privacy). Narcissism, grandiose, and level of Facebook addiction is mediated by the

need for admiration and need to belong while Vulnerable narcissism is not found to be linked with Facebook addiction level (Casale, Fioravanti, 2018). Here narcissistic individuals use social media to post selfies that are associated with the motive of taking admiration from others because they have considered it a positive outcome for them.

The basic cognitive role of social media in terms of self-esteem tends to appear as a key role in addiction that may trigger core beliefs related to attributes of activating behavior. At this stage, sometimes having a large of followers on a social networking site may conclude as an addictive use of social media hence previous research have shown that person has low self-esteem may regard social media as a safe place where they can easily express themselves thus it has created a negative link between self-esteem and addiction while using of social media (Andreassen, 2015; Botou, Marsellos, 2018; Hong et al., 2014).

Social networking sites usually offer their users a platform to gain admiration from others as this level exhibiting self-promotion to gain attention hence can create a dependency on other users of social media (Andreassen et al., 2017; Casale, Fioravanti, 2018). The need to belong is a powerful, major, and incredibly unavoidable human inspiration, which has numerous effects on individuals' feelings, discernments, and practices. People high in the need to belong usually work more earnestly to increase fulfilling social relations. Given that the essential reason for cell phone use is to permit individuals to speak with one another (Wang et al., 2017). It is logical to accept that those teenagers who are high in the need to belong usually utilizes smartphones more than those teenagers who are low in the need belong which puts them at more danger of getting dependent on the usage of a smartphone (Newman, Smith, 2016).

Mouakket (Mouakket, 2018) by using two models which are Five-Factor Model and Expectation-Confirmation Model claimed that Extraversion has a positive influence while using Facebook and perceived usefulness while users having Neuroticism has a negative influence while using Facebook and perceived usefulness. This indicated that both extraversion genders male females found Facebook as a continuously influential platform and they continue to use Facebook if this platform influences their satisfaction level and if they found it useful.

The excessive use of social networking websites has reflected so many negative psychological impacts giving hype to factors that lead you towards the complex. One way or the other people fear that they have been missed out hence termed as FOMO (i.e fear of missing out) (Blackwell et al., 2017). The increase in social anxiety and change in habitual concerns has shown the negative side of social networking.

The emerging themes of short video applications tend to manage some aspects of issues as according to the literature review, studies discussed mobile applications and social websites such as Facebook, Snapchat, Instagram, and Twitter. TikTok is a new form of mobile application and now by using this platform, users can easily discuss their views and show their skills by making 15 seconds' video. TikTok is a new platform for users as now it is also creating initiatives for creating awareness on different issues by generating videos. Hence this study also tends to remove a gap while discussing themes of TikTok such as generating 15 seconds video using different tools and its link with the addiction in terms of personality traits. Thus, this study further discusses gaps while focusing on the addiction of TikTok by correlating variables such as personality traits, narcissism, and self-esteem, which need to belong and admiration as a mediator (Hern, 2019; Omar, Dequan, 2020).

Self-determination theory initially focused on the perspective that in the context of social networking sites users have a diverse range of self-promotion hence they have a distinct possibility of affording these actions. This theory distinguishes different types of motivation that have based on reasons hence individual's motivation acts in a certain way to gain personal interests. The theory also argues that the inputs related to rewards and feedback help to enhance the autonomy for those actions that allow satisfaction in terms of psychological needs (Deci, Ryan, 2000). Self-Determination Theory contends that usually attachment style urges to discuss and relatable to individuals for their social association among people and a significant predecessor factor in social media networking platforms.

Uses and gratification theory describes a psychological perspective of individuals that how they use mass media and what they do with it (Katz et al., 1973). The perspective of this theory determines that what people do with media hence conceive individuals as goal-directed in response to certain needs. Further, these needs can be indicated as the motive for using specific a social media medium and in this case, if that certain medium fulfills a particular need of the social media

of the user, then it can create a factor of attachment. Based on the above literature following are the objectives. The first objective of the study is to investigate the relationship between Neuroticism, Extraversion, Grandiose and Vulnerable Narcissism, and the addition of the TikTok mobile application. The second objective of the study is to identify the mediating role of self-esteem, need to belong, and need for admiration between independent and dependent variables. The below hypotheses are constructed with the help of the above literature.

H1 – Extraversion has a direct effect on a) need to belong b) need for admiration c) self-esteem.

H2 – Neuroticism has a direct effect on a) need to belong b) need for admiration c) self-esteem.

H3 – Grandiose Narcissism has a direct effect on a) need to belong b) need for admiration c) self-esteem.

H4 – Vulnerable Narcissism has a direct effect on a) need to belong b) need for admiration c) self-esteem.

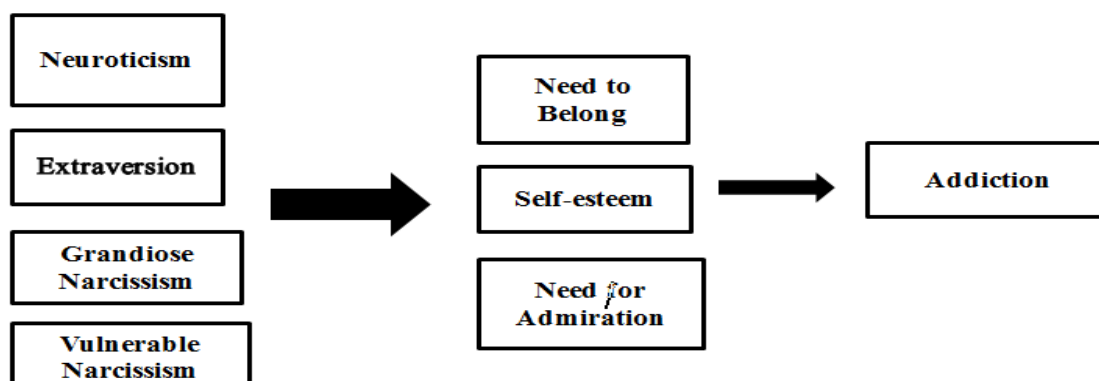
H5 – Need to belong, need for admiration and self-esteem is a significant predictor of TikTok addiction.

H6a – Need to belong, need for admiration and self-esteem are mediating between the relationship of Neuroticism and TikTok addiction.

H6b – Need to belong, need for admiration and self-esteem are mediating between the relationship of extraversion and TikTok addiction.

H6c – Need to belong, need for admiration and self-esteem are mediating between the relationship of Grandiose Narcissism and addiction of TikTok.

H6d – Need to belong, need for admiration and self-esteem are mediating between the relationship of vulnerable Narcissism and TikTok addiction.



**Fig. 1.** Conceptual Model

## 2. Materials and methods

The study is intended to validate an instrument related to a survey that assesses the addiction of TikTok among university students. The survey instrument was developed under the educational recommendations hence research literature had indicated several factors. The survey method measures the mediating role of variables such as self-esteem, need of belonging, and need for admiration between the independent variables which are Extraversion, Neuroticism, Grandiose and Vulnerable Narcissism, and the dependent variable which is addiction. Power analysis indicated the need for a sample size of 350 both males and females. Due to the inability to easily identify the entire population, true random sampling was not conceivable; because of that problem, purposive sampling had to be identified to test the model. Data had gathered from students aged 18-30, such as undergraduate, graduate, and post-graduate with the help of a survey. Eight instruments have been employed for data collection in this research.

*Neuroticism.* This scale was measured by a five-point Likert scale which is 1 = strongly disagree to 5 = Strongly Agree and on which or how participants agreed or disagreed with the characteristics. The measure was adapted from a previous study (Benet-Martínez, John, 1998). The seven items in each sample have been created to composite indices, with higher or low scores indicating higher or low levels of neuroticism.

*Extraversion.* The scale was measured by a five-point Likert scale which is 1 = strongly disagree to 5 = Strongly Agree and on which or how participants agreed or disagreed with the characteristics. The measure was adapted from an existing study (Benet-Martínez, John, 1998) and the scale showed high reliability. The eight items in each sample have been created to composite indices, with higher or low scores indicating higher or low levels of extraversion.

*Grandiose Narcissism.* The scale was measured by the abbreviated version of the narcissistic personality inventory (Ames et al., 2006). This scale has used to assess grandiose narcissism NPI-16, originally by R. Raskin and H. Terry (Raskin, Terry, 1988) which is NPI-40. NPI-16 is shorter that has been designed to measure grandiose narcissism. It contains 16 pairs of items; each consisting of two conflicting proposals that is one reflects narcissism and the other non-narcissistic. But here the researcher had only taken 16 statements regarding Grandiose Narcissism characteristics and it has been measured by the five-point Likert scale which is 1 = strongly disagree to 5 = Strongly Agree.

*Vulnerable Narcissism.* The scale was measured by the Hypersensitive Narcissism Scale (Hendin, Cheek, 1997). The scale is comprised of 10 items capturing narcissistic hypersensitivity such as “My feelings are easily hurt by ridicule or by the slighting remarks of others”. Participants have indicated the extent to which the items have characteristics of their feelings and behaviors, using a five-point Likert scale ranging from is 1 = strongly disagree to 5 = Strongly Agree.

*The need to belong.* The scale was measured by a five-point Likert scale which is 1 = strongly disagree to 5 = Strongly Agree and on which or how participants agreed or disagreed with the characteristics. The measures were adapted from an existing study (Leary et al., 2013). The scale showed high internal consistency.

*Self-esteem.* The scale was measured by a five-point Likert scale which is 1 = strongly disagree to 5 = Strongly Agree and on which or how participants agreed or disagreed with the characteristics. The measures have been adapted from a previous study (Patchin, Hinduja, 2010). A high score indicates high self-esteem on the scale.

*Need for Admiration.* The scale was measured by a preliminary Italian version of the 11-item Admiration-seeking Behavior Scale (Brown, 1988) that has assessed the tendency to adopt behaviors motivated by the conscious or unconscious need to gain admiration from others. Each item is rated on a 5-point Likert scale (from 1 = “never” to 5 = “always or almost always”).

*Short-form video app addiction.* The scale was measured by the 6-item scale developed by an existing study (Choi, Lim, 2016) namely the short-form video app addiction scale that has measured by the five-point Likert scale which is 1 = strongly disagree to 5 = Strongly Agree and on which or how participants have agreeable with the characteristics.

The researcher had developed a questionnaire and collected data through an online survey. Participants had approached by their classes’ respective teachers/instructors. To avoid a social desirability response set, participants did not inform about the specific focus of the study. Undergraduate students, graduate, and postgraduate filled surveys, and this process were continued until the minimum sample size of 350 had reached or surpassed.

### 3. Discussion

The goal of the study was to find out the reason behind the TikTok addiction with personality traits concerning mediators’ variables. The purpose of the study was to test a model that defined a preliminary relationship between personality traits and narcissism with the TikTok addiction so there is an underlying relationship between these variables that are mediated by self-esteem, needs for admiration, and need to belong. The present study has focused on the short film video application that focuses on how massively the video-sharing app TikTok has gained attention and has impacted the generations. As the objective was to investigate the relationship between independent variables such as Neuroticism, Extraversion, Grandiose and Vulnerable Narcissism, and the addition of the TikTok mobile application. To identify the mediating role of self-esteem, need to belong, and need for admiration between independent and dependent variables.

Previous studies have found that extraversion is a predictor of social media usage and its addiction which is also supported by the recent study (Choi, 2017; Choi et al., 2015; Hawi, Samaha, 2019; Islam et al., 2019; Miller et al., 2018; Moon et al., 2016; Nardis, Panek, 2019; Thelwall, Vis, 2017; Yu, 2019). On the other hand, neuroticism has the only predictor under some personality variables such as age hence it was not found predictor of social media which has also supported by the result of the recent study that neuroticism has not an indirect effect on the addition of TikTok

through the mediator of need to belong, need for admiration and self-esteem (Blackwell et al., 2017; Ho et al., 2017; Tang et al., 2016). Grandiose narcissism and vulnerable narcissism have a direct effect on the need to belong, need for admiration, and self-esteem. Previous researchers have found that there is a significant relationship between TikTok addiction, need to belong, need for admiration, and vulnerable narcissism but there is no direct relationship between them. Whereas there was no significant relationship between TikTok addiction need to belong, the need for admiration, and grandiose narcissism. There is an indirect relationship between grandiose narcissism and vulnerable narcissism and TikTok addiction, mediated by the need for admiration, which is also supported by the present study (Casale, Fioravanti, 2018). Social media applications may differ in their features and tools hence it can be a possibility that other than Facebook; several other social media platforms can be satisfying narcissism's need (Andreassen et al., 2017; Casale, Fioravanti, 2018). There was a mediating role of self-esteem, need to belong, and need for admiration in extraversion, grandiose narcissism, and vulnerable narcissism but on the other hand, there was no mediating role of neuroticism. On the other hand, TikTok addiction has a significant and has an indirect effect on narcissism and self-esteem (Pantic et al., 2017). The results of the study also determined that self-esteem has a direct effect on TikTok addiction, but it is not significant. These results are in line with a recent study that self-esteem is not related to the time spent on social networking sites, even activities perform such as posting selfies on it are also relatable to self-esteem (Pantic et al., 2017). Self-esteem can indicate the usage of social media but not always as it depends on the different platforms. Social networking sites may perceive as a chance to provide a narcissist to increase its usage, but it has also expanded their behavior of getting admiration on it. Previous studies also showed that mediators such as the need to belong and the need for admiration were found to be correlated with the TikTok addiction (Casale, Fioravanti, 2018; Sicilia et al., 2016).

This study has several practical contributions or implications that can be useful for future research, practitioners, social media users, youth, teachers, and parents. This study further contributes and proves that many individuals may get personalization and entertainment directly from the effect of using TikTok. Therefore, findings can also contribute to media-related research that can be identified by the general public hence policymakers can make strategies for social media users to overcome addictive tendencies. The recent study has also some limitations as due to the pandemic situation of coronavirus, data was collected online, and it was purposive sampling. Future studies can take other variables such as attachment and relatedness. Future studies can also use another platform or by using the same platform, the sample size can be changed. Demographic variables can be varied and may also raise a concern so further, the effect of culture as a mediating role can be explored.

#### 4. Results

A correlation analysis was performed to check the correlation among neuroticism, extraversion, grandiose narcissism, vulnerable narcissism, need to belong, self-esteem, need for admiration, short-form video app. The results showed that neuroticism is positively related to extraversion ( $r = .54, p < .01$ ). The results showed that extraversion is positively related to grandiose narcissism ( $r = .53, p < .01$ ). The results showed that grandiose narcissism is positively associated with vulnerable narcissism ( $r = .57, p < .01$ ). The results showed that vulnerable narcissism is positively associated with the need to belong (NTB) ( $r = .56, p < .01$ ). The results showed that the need to belong (NTB) is positively associated with self-esteem ( $r = .55, p < .01$ ). The results showed that self-esteem is positively associated with the need for admiration (NFA) ( $r = .43, p < .01$ ). The results showed that the need for admiration is positively associated with short-form video applications (SFV App) ( $r = .64, p < .01$ ).

After performing the analysis in Smart PLS 3.2.9 version, the researcher found that extraversion has a direct effect on the need to belong and it was not significant ( $\beta = .097, P = .179$ ). Extraversion has a direct effect on the need for admiration, but it was not significant ( $\beta = -0.024, P = .0641$ ). The results have not supported the direct relationship of extraversion with self-esteem, but it was not significant ( $\beta = 0.179, P = 0.052$ ). Hence this result has not supported H1 in which extraversion has a direct effect on three mediators which are the need to belong, need for admiration, and self-esteem but is not significant.

Neuroticism has a direct effect on the need to belong and it was not significant ( $\beta = 0.009, P = 0.881$ ). Neuroticism has a direct effect on the need for admiration and it was not significant

( $\beta = 0.092$ ,  $P = 0.058$ ). Neuroticism has a direct effect on self-esteem, and it was not significant ( $\beta = 0.071$ ,  $P = 0.347$ ). The result has not supported H2 in which neuroticism has a direct effect on three mediators which are the need to belong, the need for admiration, and self-esteem hence it is not significant.

**Table 1.** Correlations Matrix

	1	2	3	4	5	6	7	8
1. Neuroticism	1	.54**	.34**	.36**	.27**	.31**	.35**	.27**
2. Extraversion		1	.53**	.51**	.42**	.47**	.43**	.37**
3. Grandiose Nar			1	.57**	.49**	.46**	.65**	.49**
4. Vulnerable Nar				1	.56**	.49**	.64**	.52**
5. NTB					1	.55**	.51**	.37**
6. Self Esteem						1	.43**	.33**
7. NFA							1	.64**
8. SFV App								1

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

Grandiose Narcissism has a direct effect on the need to belong and it was significant ( $\beta = 0.227$ ,  $P = 0$ ). Grandiose Narcissism has a direct effect on the need for admiration, but it was significant ( $\beta = 0.409$ ,  $P = 0$ ). Grandiose Narcissism has a direct effect on self-esteem, but it was significant ( $\beta = 0.168$ ,  $P = 0$ ). The result has supported H3 in which grandiose narcissism has a direct effect on three mediators which are the need to belong, need for admiration, and self-esteem hence it is significant.

Vulnerable narcissism has a direct effect on the need to belong, but it was significant ( $\beta = 0.388$ ,  $P = 0$ ). Vulnerable narcissism has a direct effect on the need for admiration, but it was significant ( $\beta = 0.391$ ,  $P = 0$ ). Vulnerable narcissism has a direct effect on self-esteem, but it was significant ( $\beta = 0.333$ ,  $P = 0$ ). The result has supported H4 in which vulnerable narcissism has a direct effect on three mediators which are the need to belong, need for admiration, and self-esteem hence it is significant.

The need to belong has a direct effect on TikTok addiction but it was not significant ( $\beta = 0.023$ ,  $P = 0.738$ ). The need for admiration has a direct effect on TikTok addiction but it was significant ( $\beta = 0.58$ ,  $P = 0$ ). Self-esteem has a direct effect on TikTok addiction, but it was not significant ( $\beta = 0.095$ ,  $P = 0.111$ ). This result has only supported H5's one mediating variable which is the need for admiration, thus only the need for admiration is a significant predictor of TikTok addition.

**Table 2.** Direct Effect

Direct Effects	$\beta$	Mean	SD	T	P
				Statistics	Values
Extraversion → Need To Belong	0.097	0.096	0.072	1.345	0.179
Extraversion → Need for Admiration	-0.024	-0.027	0.052	0.467	0.641
Extraversion → Self Esteem	0.179	0.175	0.092	1.952	0.052
Grandiose Narcissism → Need to Belong	0.227	0.223	0.063	3.579	0
Grandiose Narcissism → Need for Admiration	0.409	0.413	0.06	6.88	0
Grandiose Narcissism → Self Esteem	0.168	0.168	0.069	2.436	0.015
Need to Belong → TikTok Addiction	0.023	0.024	0.069	0.335	0.738
Need for Admiration → TikTok Addiction	0.58	0.578	0.055	10.543	0
Neuroticism → Need to Belong	0.009	0.015	0.06	0.15	0.881

Neuroticism→Need for Admiration	0.092	0.091	0.048	1.896	0.058
Neuroticism→Self Esteem	0.071	0.078	0.075	0.941	0.347
Self Esteem→TikTok Addiction	0.095	0.101	0.06	1.598	0.111
Vulnerable Narcissism→Need to Belong	0.388	0.394	0.053	7.312	0
Vulnerable Narcissism→Need for Admiration	0.391	0.394	0.058	6.686	0
Vulnerable Narcissism→Self Esteem	0.333	0.335	0.078	4.293	0

After the direct effect when the researcher checked the indirect of the independent variable on the dependent variable through the mediators of need to belong, need for admiration, and self-esteem. So, the researcher found that neuroticism has no indirect effect on the addition of TikTok through the mediator of need to belong. The researcher found that neuroticism has no indirect effect on the addition of TikTok through the mediator of the need for admiration ( $\beta = .053$ ,  $P = .06$ ). Neuroticism has no indirect effect on the addiction of TikTok through the mediator of self-esteem ( $\beta = 0.007$ ,  $P = 0.494$ ). Thus, the results are not supported by H6a which is needs to belong, the need for admiration and self-esteem are mediating between the relationship of neuroticism and TikTok addition.

On the other hand, Extraversion has an indirect effect on the addiction of TikTok through the mediator of need to belong ( $\beta = 0.002$ ,  $P = 0.802$ ). Extraversion has also an indirect effect on the addiction of TikTok through the mediator of the need for admiration ( $\beta = 0.002$ ,  $P = 0.802$ ). Extraversion has also an indirect effect on the addiction to TikTok addiction through the mediator of self-esteem ( $\beta = 0.017$ ,  $P = 0.247$ ). Thus, the results are supported H6b which is the need to belong, the need for admiration, and self-esteem are mediating between the relationship of extraversion and TikTok addition.

Grandiose Narcissism has an indirect effect on the addiction of TikTok through the mediator of need to belong ( $\beta = 0.005$ ,  $P = 0.738$ ). Grandiose Narcissism has an indirect effect on the addiction of TikTok through the mediator of the need for admiration ( $\beta = 0.238$ ,  $P = 0$ ). Grandiose Narcissism has an indirect effect on the addiction of TikTok through the mediator of self-esteem ( $\beta = 0.016$ ,  $P = 0.201$ ). Results have shown and supported H6c need to belong, the need for admiration, and self-esteem are mediating between the relationship of Grandiose Narcissism and addiction of TikTok.

Vulnerable Narcissism has an indirect effect on the addiction of TikTok through the mediator of need to belong ( $\beta = 0.009$ ,  $P = 0.746$ ). Vulnerable Narcissism has an indirect effect on the addiction of TikTok through the mediator of the need for admiration ( $\beta = 0.227$ ,  $P = 0$ ). Vulnerable Narcissism has an indirect effect on the addiction of TikTok through the mediator of self-esteem ( $\beta = 0.032$ ,  $P = 0.154$ ). The results state that 6d is supported hence it has shown that the need to belong, need for admiration and self-esteem are mediating between the relationship of vulnerable Narcissism and TikTok addition.

**Table 3.** Specific Indirect Effects

Specific Indirect Effects	$\beta$	T Values	P Values
Extraversion→Need to Belong→TikTok Addiction	0.002	0.25	0.802
Grandiose Narcissism→Need to Belong→TikTok Addiction	0.005	0.335	0.738
Neuroticism→Need to Belong→TikTok Addiction	0	0.047	0.962
Vulnerable Narcissism→Need To Belong→TikTok Addiction	0.009	0.324	0.746
Extraversion→Need for Admiration→TikTok Addiction	-0.014	0.467	0.641
Grandiose Narcissism→Need for Admiration→TikTok Addiction	0.238	6.016	0
Neuroticism →Need for Admiration→TikTok Addiction	0.053	1.882	0.06
Vulnerable Narcissism→Need for Admiration→TikTok Addiction	0.227	5.47	0
Extraversion→Self Esteem→TikTok Addiction	0.017	1.159	0.247
Grandiose Narcissism→Self Esteem→TikTok Addiction	0.016	1.28	0.201
Neuroticism→Self Esteem→TikTok Addiction	0.007	0.685	0.494
Vulnerable Narcissism→Self Esteem→TikTok Addiction	0.032	1.426	0.154



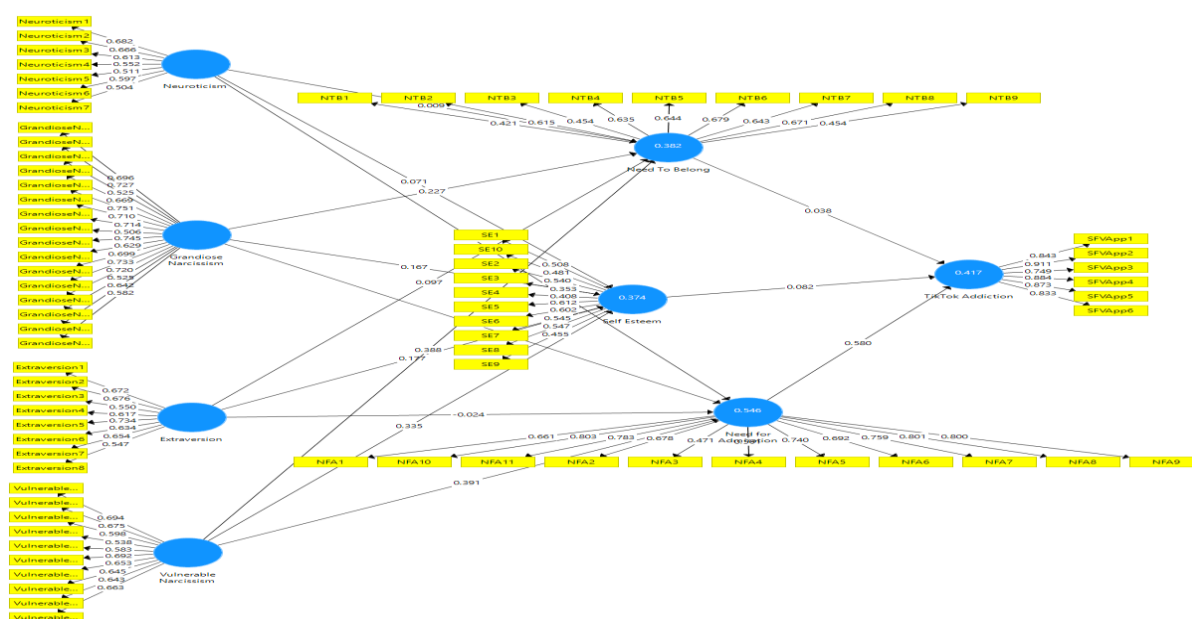


Fig. 2. Structural Model

### 5. Conclusion

The perception of the study aimed to develop a clear understanding of the topic under the affirmation to the TikTok’s addiction. TikTok is popular with young people is also get affirmation from the participants. The present study discussed the basic association use of social media, personality traits, and narcissism with the mediating variables. The current study has drawn some indications that personality traits and narcissism have some reliability with the usage of social media and further findings play an important part while maintaining the crucial point of addiction. Thus, this study further discusses gaps while focusing on the addiction of TikTok by correlating variables such as personality traits, narcissism, and self-esteem, need to belong, and admiration as mediators. The study plays a significant role in studying some useful variables that depict the nature of human nature and its relation to the usage of social media. The insight way of learning some points regarding the influence of social media especially the focused platform of TikTok concluded that only Neuroticism which is a personality trait is not significantly related to the addiction of TikTok.

Future studies can also take some other variables just to compare them with the results of this study. The results can vary from the perspective of cultural or socio-cultural factors, but it has provided a way of observing this topic from a different perspective which can be useful as in Pakistan, the phenomena of TikTok is new. The suggested studies can build up strong actions of developing a useful stance on the topic as the focused topic derived and discussed constructive ways of using variables according to the situation and nature of the study. The future vision of the study intends to enable and can confront the projection of findings by measuring other variables to increase the factor of generalizability.

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