

## THE ROLE OF BIG FIVE PERSONALITIES ON TIKTOK ENGAGEMENT BEHAVIOR IN ADOLESCENTS

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### ABSTRACT

*This study was conducted to examine the role of the Big Five Personalities on Tiktok engagement behavior in adolescents. The participants of this study were 994 people, with the criteria of being teenagers aged 10–21 years old and having Tiktok social media accounts. The measuring tools used are the Five-Factor Model and the Tiktok Engagement Behavior Questionnaire. Hypothesis testing using SPSS with a simple regression technique and some additional analysis using different tests. The results of this study indicate that the big five personality has a role of 19.5% on Tiktok engagement behavior in adolescents and the personalities that play a role are extraversion ( $\beta = 0.272$ ,  $p < 0.001$ ), agreeableness ( $\beta = 0.068$ ,  $p = 0.038$ ), neuroticism ( $\beta = 0.185$ ,  $p < 0.001$ ) and openness ( $\beta = 0.163$ ,  $p < 0.001$ ).*

**Keywords:** *Big five personality, tiktok engagement behavior, adolescents*

### 1. PREFACE

The use of social media is a part of people's lives as a means of communicating with other people today. As many as 4.2 billion people from all over the world are registered as social media users [1], and there are as many as 170 million social media users in Indonesia [2]. Social media allows users to have unlimited networks, have flexibility in the learning process, increase knowledge and skills, and access information and news [3].

Adolescents are some of the largest users of smartphones and are very intimate with technology, including social media [4]. This is related to the period of adolescent development, namely, during adolescence they begin to explore identity, build relationships with the surrounding environment, and they are also interested in learning new things. To explore identity, teenagers can follow the community according to their interests through social media, so they can develop their abilities and find their identity [5]. Research [6] shows that adolescents tend to use social media as a form of self-image and to show their identity.

One of the social media that is currently experiencing an increase in popularity and growing rapidly is Tiktok. Tiktok users from all over the world have reached 1 billion [7]. Tiktok is the most downloaded non-gaming application in the world and Indonesia has the most Tiktok downloaders [8]. Tiktok social media is also a social media whose use has the longest duration and the duration of its use is longer than Facebook, Instagram, and other social media [9].

The success of Tiktok's social media is driven by three components, namely the platform (providing technical support for content creators and providing content recommendations to enthusiasts/fans). Second, creators (who create or produce videos for the platform, interact

with fans by forwarding, commenting, liking, sharing, and following. Finally, fans (providing support to creators by distributing content that has been created) [10; 11].

Research by Scherr & Wang found that the motivation of individuals to use TikTok is first, self-presentation (users present themselves to others and receive "likes" for the activity as an achievement). Second, trendiness (TikTok is seen as an interesting new application and is used by many others). Third, escape addiction or escapist addiction (TikTok is used to forget the unpleasant things in their environment and they can't stop using it). Fourth, novelty or novelty (new and innovative characters from TikTok content; new content continues to be created, uploaded, and shared by TikTok users). The presence of social media has changed the view of individuals to engage in their use, interact with others, and fulfill all their needs [13]. User involvement in the context of social media can be referred to as social media engagement [14]. Social media engagement is involvement that tends to be intense on social media, which can cause individuals to become addicted to social media [15].

The study of Meng & Leung adapted the framework of Muntinga et al. to study TikTok engagement behavior. There are three dimensions of TikTok engagement behavior, namely TikTok content is consumed passively; users only see and respond with quick responses such as liking, forwarding, following, or leaving comments. The second is enhancement, including higher levels of engagement or engagement. TikTok users use various features to improve the video quality of TikTok content by using visual effects, background music, and subtitles. Users improve video quality by using features such as beauty cameras, filters, editing features (transitions, split screen, and slow motion), using background music, and adding subtitles. TikTok users create short videos, stream live videos, interact with their favorite content creators by creating similar videos, sending private messages to content creators, and sending gifts while watching live broadcasts.

TikTok social media users have different characteristics and can cause various problems because each user will have different attitudes, motives, types, personalities, and experiences in using social media. In other words, the Big Five Personalities will have an impact on social media users [18]. Personality has two important things, namely first, each individual has differences, such as differences in behavior; and second, individuals have similarities, such as traits and patterns of action, such as behavior that often appears. There are five traits of the Big Five personality, namely openness, conscientiousness, extraversion, agreeableness, and neuroticism [19].

Individuals with open personalities tend to have more friends, engage in activities, and show more about themselves in their profiles [20; 21]. Individuals with a high conscientiousness personality have a tendency to be more careful when presenting themselves and others [22]. Individuals with extraverted personalities tend to use social media as a tool to communicate and socialize [22]. This is shown through frequent use of social media [23] and tend to use social media features that can contribute socially and actively, such as status updates [24].

Individuals with agreeable personality types tend to view their own pages and other people's pages and tend to comment on other people's profiles [25; 26]. In a study conducted by Meng & Leung, it was found that extraverted personalities contribute, increase, and create more use of TikTok social media, and extroverted individuals have a high tendency to become addicted to playing TikTok. Based on the phenomena that have been described and the results of previous studies, the authors want to further examine the role of the Big Five Personalities on TikTok engagement behavior in adolescents.

### **Our contribution**

The theoretical benefit of this research is to increase knowledge in the fields of clinical psychology and social psychology, especially for those who are interested in the big five personality traits and Tiktok engagement behavior. The practical benefit is to provide information for adolescent Tiktok users about the big five personalities who have the most influence on Tiktok engagement behavior. Furthermore, providing information about the big five personalities who play the most of a role in Tiktok engagement behavior so that teenagers can monitor their use of Tiktok and avoid negative consequences.

### **Paper structure**

The first section contains an introduction which explains the background of the problem, problem formulation, research objectives, benefits of writing, and writing systematics. The second section, background, explains the theories related to the big five personality traits and attachment behavior. Section three is Research Methods, which explains the research participants, types of research, research settings and equipment, research measuring instruments, research procedures, and data analysis techniques. Section four contains research findings and data analysis that explain the description of variables, main and additional data analysis. The fifth section contains conclusions, discussions, and suggestions.

### **Tiktok engagement behavior**

Social media engagement is defined by consumer involvement in the context of social media and from social media users [14]. (Calder, 2008) explains that media engagement is a state of affairs. strong connection between the customer and the media. Customer engagement arises as a form of action or behavior. Engaged customers will take certain actions that will not be carried out by unengaged customers. Al-Menayes (2015) explains social media engagement as an individual's personal use of social media in daily life and involvement that tends to be intense on social media, which can cause individuals to become addicted to social media. Social media engagement is the intensity of individual involvement in using social media [31].

Muntinga et al., (2011) explain the framework of three factors in the use of social media content, namely, consuming (consumption), contributing (contribution) and creating (creation) to measure customer engagement activities. Meng and Leung's (2021) study adapted the framework of Muntinga et al. (2011) to study Tiktok engagement behavior.

There are three dimensions of Tiktok engagement behavior, namely; contribution, including the minimum level of engagement or engagement; users passively consume Tiktok content; they only see and react with quick responses such as liking, forwarding, following, or leaving comments; enhancement, including higher levels of engagement or engagement; Tiktok users use various features to improve the video quality of Tiktok content by using visual effects, background music, and subtitles; creation, including high levels of engagement; Tiktok users create short videos; stream live videos; interact with their favorite content creators by creating similar videos; sending private messages to content creators; and send gifts while watching live broadcasts.

In a study conducted by Dolan, Conduit, et al. (2019), they showed that rational content affected engagement in the form of likes (passive engagement) but did not affect more active engagement (such as commenting). Dolan et al. (2019) found that entertaining content affected engagement in the form of likes but did not affect active engagement such as

commenting. Tafesse (2015) explains that entertaining content will tend to be preferred over more serious content [37].

Trust in content also affects engagement in social media (consumption and contribution). Trustworthy content will encourage users to engage in activities with other social media users such as "following," "sharing," and "commenting" [38;39].

Dolan, Conduit, et al. (2019) found that rational and entertaining content can affect passive engagement, such as giving likes, but not active engagement, such as commenting. In addition, Tafesse (2015) explains that entertaining content tends to be liked compared to more serious content.

### **Big five personalities**

The Big Five Personality is a theory belonging to McCrae and Costa which is used to determine an individual's personality through traits. Traits from (McCrae, R.R., & Costa, 2003) are explained as different dimensions in individuals who have a tendency to form patterns of thoughts, feelings, and actions that are permanent. This theory has five factors, namely: neuroticism, extraversion, openness, agreeableness, and conscientiousness [19].

#### **Extraversion**

Individuals who have high extraversion tend to be cheerful, chatty, like to be in groups and fun [19]. This factor is usually associated with individuals who spend more time with other people and rarely do activities alone [42]. A person who scores high for extraversion tends to experience a positive emotional state. Extroverts tend to be friendly and easy to make friends with. Individuals with high extraversion will get more support when stressed. As a trait, extraversion can play a role in predicting the behavior of social media users [44]. In the use of social media, an extrovert tends to be a social media user who often shows higher engagement [20]. Extroverted individuals tend to use social media to maintain relationships and pass time [18]. The tendency to constantly update on the internet is natural for people with high-extroverted personalities because they are social [45]. They will also often upload themselves on social media. Individuals with extraverted personalities will also tend to update (update) their status on social media, but if used excessively it will cause an addiction or addiction effect [26].

#### **Agreeableness**

These factors include human aspects such as nurturing, caring and emotional assistance [43]. Individuals who have high agreeableness tend to trust others, be generous, kind. [19]. Individuals who have low scores on agreeableness (friendliness) tend to be unsympathetic, rude, and find it difficult to trust other individuals. They tend to perceive an interaction with other people as a cause of stress [46].

Individuals with low agreeableness personality in using social media tend to give negative comments to other social media users. This is because they tend to have unstable emotions [47]. Individuals with a high agreeableness personality are very related to social activities and always want to be able to provide inspiration to other individuals [48].

#### **Conscientiousness**

This factor explains individual self-discipline and control [41]. Individuals with high conscientiousness tend to be hardworking, organized, focused on achievement, conscientious, punctual, and diligent [19]. Conscientiousness is related to the ability to control oneself and

understand and follow rules and norms to achieve a goal [49]. According to Soto et al. (2011), conscientiousness tends to increase from late adolescence to adulthood because adolescents improve moral and social principles that lead to responsible behavior [50]. Apart from that, they also increase self-regulatory abilities so that they can avoid dangerous behavior to be able to carry out their long-term goals. In a study conducted by Stoughton et al. (2013), individuals with a conscientious personality using social media often give negative comments on other people's social media and are used as a means to vilify others on social media [47].

#### Neuroticism

This factor measures emotional balance and individual self-adaptation (Maltby & Macaskill, 2007) and discusses negative emotions. Individuals with this dimension do not like a pleasurable activity [41;43]. Individuals who have high neuroticism tend to experience stress, have feelings of anxiety, feel insecure about themselves, are unhappy, have no satisfaction with their lives and are emotional [19]. Neurotic individuals use the internet as a place to place their true selves [51]. (Orth et al., 2010) Neurotic individuals will be more responsive to advertisements that attract aspects of their personality, for example messages that are made to reduce anxiety or insecurity [52].

#### Openness

This factor is commonly referred to as "openness to experience," measuring the individual's openness to new things to experience [41]. Individuals who have high openness tend to be creative, imaginative, curious, liberal, and open to diversity [19]. According to Muscanell & Guadagno (2012), the use of social networks was found to be associated with openness. Individuals who are open tend to create new concepts that are entertaining [53].

#### Tiktok

Tiktok was created by a Beijing-based technology company, Bytedance. Previously, in September 2016, the company launched Douyin for the Chinese market and in 2017 launched Tiktok for markets outside China. These two applications are the same; it's just that they are on separate servers to comply with China's existing regulations. Then, in 2018, Tiktok merged with the Musical.ly app with the aim of creating a larger video community [54].

In February 2019, Tiktok reached its first 1 billion downloads. The app took less than eight months to gain half a billion users. As of April 2020, the Tiktok app has been downloaded more than two billion times worldwide on the Apple App Store and Google Play Store [55]. The popularity of this application is growing and increasing, Tiktok can duplicate the number of downloads within a year. As of early 2020, there were 315 million downloads of the Tiktok app from around the world. At the beginning of 2019, Tiktok became the most downloaded application on the Apple App Store with 33 million downloads (Briskman, 2019) and the most downloads were in Indonesia [8]. The Tiktok application is more popular among teenagers [57]. As of January 2021, Tiktok has 689 million monthly active users worldwide [58]. Mohsin (2021) explains that Tiktok's growth is very rapid, for example other applications such as Instagram since its launch took six years to get the same number of monthly active users that Tiktok managed to achieve in less than three years and Facebook took more than four years [57]. Tiktok allows everyone to be a creator, and encourages users to share their passion and creative expression through their videos [57].

Users can create simple and complex videos. The simplest videos consist of just text on a colored background. Further, videos can be more complex by including images, video clips,

and sound. Captured images and videos can be changed using sound effects, filters, and video speed controllers. The maximum length of a video that can be created is 60 seconds and consists of a collection of short video clips that can be combined. When users post a video, they can add a caption with a hashtag that can describe their video. Users can also choose the music used for the background of their videos from various music genres and can also create clips with original sounds. Users can view content generated by others on a page called "For You" or "For You". The "For You" page is a video feed created especially for users based on what they watch, like, and share. Users can also search for hashtags, vote, and find trending videos on the "Discover" page [54]

### **Adolescents**

Santrock (2016) explains that adolescence begins when a child is 10 to 12 years old and ends when he reaches the age of 18 to 21 years [59]. At this time, adolescents spend more time with their peers, begin to have romantic relationships with the opposite sex for the first time, and also begin to have idealistic and abstract thoughts [59]. In Erik Erikson's developmental stage theory, it is known that adolescents enter the stage of identity and/or identity confusion. At this stage, adolescents begin to determine their goals for the future and begin to find their identity. Adolescents who can overcome their identity crisis will form a clear self-identity and will be easy to adapt to their environment. Meanwhile, adolescents who cannot overcome their identity crisis will experience a condition called identity confusion, or the teenager will experience confusion and find it difficult to adapt to their environment [59].

## **2. RESEARCH METHODS**

Participants in this study had to meet male and female criteria aged 10–21 years and have a Tiktok social media account. The data collection technique in this study used a non-probability sampling method, namely purposive sampling. Initially, there were 1027 participants who took part in this study. In this study, it was found that the most participants were women (91.4%), were in the age group 13-17 years (53.7%), had Tiktok accounts > 1 year–3 years (62.3%) and the duration of using Tiktok accounts was 3–7 hours (51.6%).

The type of research conducted is non-experimental and quantitative. Collecting data using a questionnaire via Google Form on the subject. The measuring instrument used to measure Tiktok engagement behavior is the Tiktok engagement behavior Questionnaire developed by Meng & Leung [16] and translated into Indonesian. This scale consists of 12 items using a 5-point Likert scale.

The measuring instrument used to measure the Big Five Personality is the Five-Factor Model, which was developed by McCrae & Costa and has been translated into Indonesian by the Research and Measurement Section of the Faculty of Psychology, Tarumanagara University. This scale consists of 44 items using a 4-point Likert scale.

## **3. RESULTS AND DISCUSSIONS**

### **Findings**

Before testing the hypothesis, the authors conducted a normality test using the Kolmogorov-Smirnov one sample analysis technique with residual data. The result is  $p > 0.05$ , which means the data distribution in this study is normally distributed. The author analyzes the hypothesis using a multiple regression analysis technique to see if there is a role for the Big Five Personalities on Tiktok engagement behavior. Based on the test results, it was found that extraverted personality ( $t=7.738$ ,  $p < 0.001$ ), agreeableness ( $t=2.074$ ,  $p = 0.038$ ), neuroticism ( $t=5.947$ ,  $p < 0.001$ ) and openness ( $t=4.721$ ,  $p < 0.001$ ) play a role in Tiktok

engagement behavior. The results of the multiple regression test in this study resulted in a value of  $R^2 = 0.195$  which means that the role of the big five personality on Tiktok engagement behavior is 19.5%, and the rest is influenced by other variables outside this research model.

**Table 1**

*Personality type regression test on Tiktok engagement*

	Standardized Coefficient s ( $\beta$ )	t	Sig (p)	R square	Adjusted R Square
Extraversion	0,272	7.738	0.000	0.195	0.191
Agreeableness	0,068	2,074	0.038		
Conscientiousness	0,051	1,413	0.158		
Neuroticism	0,185	5,947	0.000		
Openess	0,163	4,721	0.000		

## Discussions

The results of this study have several differences with the results of previous studies. On extraverted personality, this study has similarities with research conducted by Meng & Leung, namely that extraverted personality plays a role in Tiktok engagement behavior. Individuals with extraverted personalities tend to use social media features in order to contribute actively and socially, such as status updates [24]. In the use of social media, individuals with extraverted personalities tend to be social media users who often show higher engagement [20]. Research by Scherr & Wang found that one of the motivations for individuals to use Tiktok is self-presentation (users present themselves to others and receive "likes" for the activity as an achievement). Individuals with extraverted personalities will have many new friends and tend to comment on each other on social media. They will also often upload themselves on social media. Individuals with extraverted personalities will also tend to update their status on social media [26].

On agreeableness personality, Meng & Leung found that agreeableness personality had no role in Tiktok engagement behavior. This was different from the results of this study, which showed that agreeableness personality had a role in Tiktok engagement behavior. This is because individuals with agreeable personality types tend to view their own pages and other people's pages, and they tend to comment on other people's profiles [25; 26]. Individuals with a high agreeableness personality on using social media tend to give positive comments to other social media users. This is because they tend to have stable emotions [47].

On conscientiousness personality, this research has similarities with research conducted by Meng and Leung, namely conscientiousness personality does not play a role in Tiktok engagement behavior. Individuals with conscientiousness personality have a tendency to be more careful when presenting themselves and others [22]. Individuals with conscientiousness personality have the ability to control themselves [49], so they tend not to be involved in the use of social media so that they can avoid negative behavior to be able to carry out their goals [50]. On neuroticism personality, Meng & Leung found that agreeableness personality had no role in Tiktok engagement behavior. This was different from the results of this study, which showed that neuroticism personality had a role in Tiktok engagement behavior. Individuals with neuroticism personalities become who they really are when using Tiktok. This is supported by the presentation of Amichai- Hamburger et al., Individuals with neuroticism personality make social media as a place to put their real self. Individuals who have high neuroticism tend to experience stress, have feelings of anxiety, feel insecure about themselves, are unhappy, have no satisfaction with their lives and are emotional. made to reduce anxiety or insecurity [52].

In openness personality, Meng & Leung found that openness personality had no role in Tiktok engagement behavior. This was different from the results of this study, which showed that openness personality had a role in Tiktok engagement behavior.

This is supported by research [20;21], which states that individuals with openness personalities tend to be more involved in social media activities and show more about themselves in their profiles. Individuals who have high openness tend to be creative, imaginative, curious, liberal, and like diversity [19]. According to, the use of social networks was found to be associated with openness. Individuals who are open tend to create new concepts that are entertaining [53]. Individuals who are open also tend to create new concepts that can be entertaining [53]. Scherr and Wang found that one of the motivations for individuals to use Tiktok is novelty (new and innovative characters shared by Tiktok users. Individuals with openness personality have high involvement in social media because they like to enjoy new things [20]

The author also conducted a different test analysis to find out the description of Tiktok engagement behavior based on gender, age, length of ownership of a Tiktok account, and duration of using Tiktok accounts in a day. In this study, it was found that there was no significant difference between men and women in Tiktok engagement behavior. This is not in line with previous research, which said that women were more involved with social media in general than men [62]. In this study, it was found that individuals aged 10–12 years had a higher level of Tiktok engagement behavior than other groups. It can be explained that social media has an important tendency in early adolescent life because of the importance of exploring identity, autonomy, friendship, and peer acceptance during this developmental stage [5]. One of the motivations for individuals to use Tiktok is self- presentation and the existence of novelty or novelty in social media [12]. By using Tiktok social media, teenagers can explore their identity to form a clear self-identity.

In this study, it was also found that individuals with Tiktok account ownership of > 3 years to 5 years had a higher level of Tiktok engagement behavior than other groups. In addition, it was also found that individuals with a Tiktok account usage duration of > 7 hours a day had a higher level of Tiktok engagement behavior than other groups. In line with [31], which explains that social media engagement is the intensity of individual involvement in using social media. So, it can be concluded that the intensity of a person's use of social media is closely related to the individual's involvement in the use of social media.

#### **4. CONCLUSIONS AND SUGGESTIONS**

The results of the regression test showed that the personality traits of extraversion, agreeableness, neuroticism and openness played a role in Tiktok engagement behavior. The authors performed several additional analyzes of the control data. The results show that there is no difference in Tiktok engagement behavior between men and women. Furthermore, the results show that there are differences in Tiktok engagement behavior with respect to age, length of Tiktok account ownership, and duration of account use. with the highest average in the age range of 10–12 years, participants with account ownership of > 3–5 years, and participants with a Tiktok playing duration of > 7 hours.

Suggestions for further research include being able to contribute research references to enrich data related to variables that are rarely studied, namely Tiktok engagement behavior. In addition, you can also add other mediator variables so that they can be adjusted to the



phenomena that occur in the Tiktok user environment, which may have a greater influence on this Tiktok engagement behavior. Further research can also be conducted on the Big Five personality traits and engagement behavior on more diverse social media platforms in order to get varied results.

Adolescents with extraversion, agreeableness, neuroticism and openness personalities are expected to limit themselves so as not to overuse Tiktok. In addition, this research is also expected to provide information to psychologists who create content on Tiktok so that they can educate individuals with certain personalities such as extraverted personalities, agreeable personalities, neuroticism personalities and openness personalities who play a role in using Tiktok.

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