Jurnal Ilmiah LISKI
(Lingkar Studi Komunikasi)

https://journals.telkomuniversity.ac.id/liski

Quantitative Analysis of TikTok Addiction: A User Behavior Study

Aisyah Mujahidah Risalah[a)], Nofha Rina[b]

[a,b] *Telkom University, Indonesia*

aisyahrisalah1202@gmail.com, nofharina@telkomuniversity.ac.id

Abstract. The use of the TikTok application has now reached all levels of society, especially teenagers who use the TikTok application as a medium to express themselves. This can certainly help in some cases, but it can also create addiction to using the application. Researchers focused on the addictive behavior displayed by TikTok users in the city of Jakarta. This research uses descriptive quantitative to understand and analyze the addictive behavior of TikTok users. The data obtained in this research was obtained through observation, survey and interviews. This research aims to understand and analyze the addictive behavior of TikTok users. The addiction theory in this research is based on Young's views using the Bergen Social Media Addiction Scale. There are six aspects of addiction, namely Salience, Tolerance, Mood swings, Withdrawal, Relapse and Conflict. The method used is quantitative descriptive, to find out more about the addiction experienced by TikTok users. Based on the findings, 74.8% of TikTok users experience addiction, with the biggest aspect being changes in mood by using TikTok to seek entertainment

Keywords: TikTok, Addiction, Social Media, Bergen Social Media Addiction Scale.

*Correspondent Author : Aisyah Mujahidah Risalah
University/Institution and Address : Telkom University
Mobile Phone of Correspondent Author : 087798968814

INTRODUCTION

The rapid development of technology in all areas of life can be seen on social media. Social media has various types and benefits, making almost every individual have a social media account. Social media such as Instagram, YouTube, Facebook and the like allow users to participate, share and create content. Tiktok is a social media site with many followers and has become the most popular social media today in Indonesia and even throughout the world. Reporting from Databoks, the number of TikTok users has increased 18.8% in the last year. The country with the most users is the United States, with 113.25 million users in early 2023, while Indonesia is in second place with 113 million TikTok users.

Tiktok in Indonesia has become a social media application that is growing rapidly on the Google Play Store and App Store. Tiktok has also surpassed big competitors such as Facebook, YouTube and Instagram by having a greater number of active users and duration of use than other social media.
In fact, the use of TikTok will also have a negative impact on individuals, especially teenagers who are still very unstable. Tiktok can also have a negative impact by making its users increasingly addicted

to this social media application. TikTok refers to the incessant need to be used as a means of entertainment or social interaction (Yang, 2023).

Addiction is a condition where individuals have the desire to do something with a frequency and duration that is beyond normal limits in a day, causing disruption to daily activities (Kwon et al., 2016). Many things cause a person to have the potential to become addicted. As stated by Andreassen et al. (2016) that addiction can be seen from salience, tolerance, mood swings, withdrawal, relapse and conflict. Addictive behavior can be classified into 3, namely mild, moderate, severe (Young et al., 1996). Addiction to TikTok allows users to spend hours watching videos endlessly, neglecting tasks and having an unhealthy lifestyle. Some signs of TikTok addiction include watching TikTok wherever and whenever, obsessing over the number of video likes and comments, obsessively checking notifications, and experiencing anxiety when not using TikTok.

TikTok has one of the most advanced algorithm systems that can make its users addicted compared to other social media platforms, by influencing internal states such as users' pleasure, concentration, and time distortion which in turn influences their addictive behavior (Qin et al., 2022). This most sophisticated algorithm system can be seen from participation, content and type of interaction, which makes TikTok's addiction problem worse than other popular social media.

The research entitled "Reasons for Teenagers' Habitual Use of Social Media: A Case Study of TikTok" is a research conducted by Yang in 2023. This research is about TikTok which has succeeded in making some teenagers very dependent on the platform by summarizing users' thoughts and accurately show them the content they are interested in. This paper takes TikTok as a case study and teenagers as research objects to analyze the reasons why teenagers use social media, and provides some reasonable solutions to reduce teenagers' dependence on TikTok use.

Not much research has been conducted in recent years on the negative effects of social media even though the problem of excessive use of information technology (IT) is very common (Yu et al., 2018). However, there is not enough research on TikTok addiction. There is little research investigating how TikTok addiction forms.

This research aims to understand and analyze the addictive behavior of TikTok users using Young (1996) theory, assuming:
1. Salience: Excessive dependence on the internet, to the point of fantasizing or fantasizing about the internet when unable to access it.
2. Tolerance: Too much social media use is usually associated with a lack of understanding of how to spend time or neglecting important things in life. Individuals often hide the time they spend accessing social media from their family or those closest to them.
3. Mood Modification: This refers to subjective experiences that people report as a consequence of engaging in certain activities. Conflict: Ignoring or running away from problems that occur in the real world. As a result, over time, internet activities become the most important in life, controlling thoughts, feelings and behavior.
4. Relapse: The inability to control oneself when using the internet results in an increase in the amount of time spent accessing the internet, both in amount of time and frequency.
5. Withdrawal: People who spend a lot of time doing activities related to the internet will reduce activities that are not related to the internet. Individuals deliberately neglect their social lives by sacrificing internet access and reducing recreational or social activities.

RESEARCH METHOD

A descriptive quantitative approach will be used in this research. The aim of this method is to create a factual, systematic and accurate description or picture of the phenomenon being investigated. To obtain research data, primary data was used through various methods, such as surveys, observations and interviews. With a questionnaire which is used as a tool for collecting data, where statements have been provided by researchers and then respondents will answer them based on the answer choices provided using a 5 point Likert scale. This research also conducted interviews to find out definite

answers regarding the statements that were given. Meanwhile, secondary data was taken from websites, books and online journals.

Researchers use both primary and secondary data collection methods. Primary data is collected using a purposive sampling approach, where the sampling method is conducted randomly by distributing Google Form questionnaires to TikTok users who meet predefined criteria. Meanwhile, secondary data is obtained from journals and books that align with the research topic. The data is then processed using descriptive analysis, along with normality, reliability, and validity tests, all conducted through SPSS software.

RESULT

Questionnaires are distributed to respondents who comply with predetermined criteria. This questionnaire contains 31 statement items that represent addictive behavior. The total number of respondents who filled out the questionnaire was 352 respondents.

Table 1
Respondent Characteristics

		Persentase (%)
Gender	Man	38,1%
	Woman	61,9%
Age	Under the Age of 18	0,6%
	At the age of 18 to 24	82,7%
	25-34 years old	16,5%
	More than 35 years old	0,3%
Active Users	Yes	98,3%
	No	1,7%
Usage Time	Less than 2 Years	97,4%
	More than 2 Years	2,6%

Source: *Data Origin and 2024*

To find out whether the research has been carried out properly and appropriately, observations were made of activities using the TikTok application. From the results of the analysis, it was found that the activity of using TikTok had results that resulted in addictive behavior because the total average of observation results from observers on all aspects and model indicators was 74.8%, which shows that TikTokers in the city of Jakarta have a high level of addictive behavior.
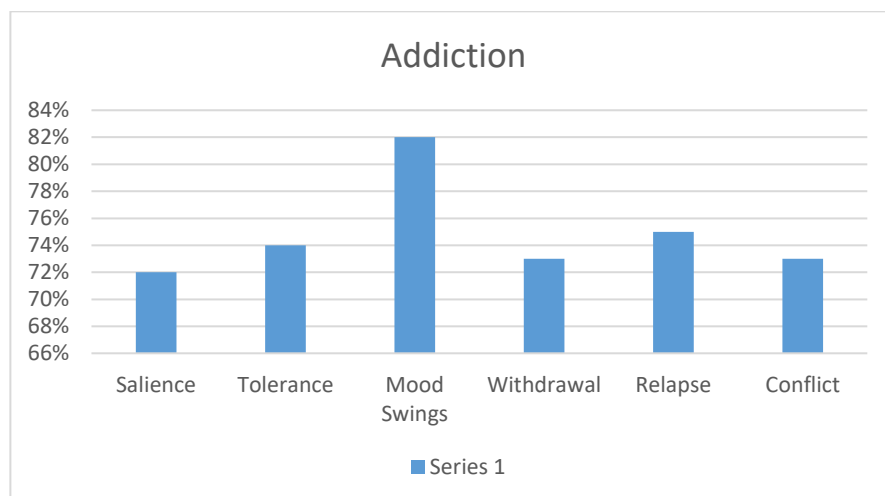
Source: Researcher Process, 2024
Image 1. Dimensions of Addiction

If seen based on the 1-dimensional image, Mood Modification have the highest value, namely 82%, this is because TikTokers use TikTok to look for fun and entertainment to forget their problems for a moment. However, the lowest value is in the Importance dimension, where TikTokers apparently think that accessing TikTok is not that important to the point that it dominates their thoughts about continuing to access TikTok anytime and anywhere.

DISCUSSION

This study found that significant addictive behavior among users of the TikTok application in the city of Jakarta was carried out using the Bergen Social Media Addiction Scala (BSMAS), a self-report scale with six items that is short and effective psychometric instrument for assessing the risk of social media addiction on the Internet. The six items are salience, tolerance, mood swings, withdrawal, relapse and conflict.

Salience is defined as something that refers to when a particular activity becomes the most important activity in a person's life and dominates his thinking (preoccupation and cognitive distortions), feelings (desires) and behavior (decline in social behavior). From the results of the analysis, it was found that before carrying out activities, TikTokers will take the time to access TikTok, whether it's just to view the content on FYP, look for the latest information or news or even to look for entertainment so they can start activities with enthusiasm. Social learning theory stems from the proposition that human behavior is largely the result of acquisition, and that the principles of learning are sufficient to explain how behavior develops and persists. So, having a habit of accessing TikTok before starting an activity will become a behavior that will stick with you and if it continues and is carried out, it can lead to addictive behavior.

Tolerance is a person's adaptation to what they use continuously which results in the need to use social media increasingly in the sense of excessive duration of use. In this case, the use of TikTok which is more frequent than before proves that TikTokers have adapted, from initially not liking the TikTok application, to ultimately using the application continuously to the point of causing addictive behavior. Bandura (1977) hypothesized that both behavior, environment and internal events in learners that influence perception and action are mutually influential relationships. Expectations and values influence behavior. Behavior is evaluated frequently, free from environmental feedback that alters personal impressions. So feelings that initially don't like TikTok and eventually lead to addictive behavior can be caused by behavioral factors, the environment and internal events.

Mood modifications refer to subjective experiences that people report as a consequence of engaging in certain activities. In this case, the use of TikTok feels a significant change when accessing TikTok, where this creates a pleasant feeling and makes you feel better. Bandura (1986) developed his theory to discuss the ways in which people have control over events in their lives through self-regulation of their thoughts and actions. So, feeling happy when accessing TikTok will make your thoughts and actions focused on continuing to access it.

Withdrawal is the behavior of individuals who deliberately ignore their social life by sacrificing internet access and reducing recreational or social activities. In this case, TikTok users will feel sad when they cannot access TikTok, because TikTok is considered an application that can provide entertainment and make them forget for a moment the problems they are facing. When experiencing problems, accessing TikTok creates hope and values that can influence behavior. According to Bandura (1977), behavior is often evaluated, free from environmental feedback, thereby changing personal impressions.

Relapse according to Young (1996) is the inability to control oneself when using the internet resulting in an increase in the amount of time spent accessing the internet, both in amount of time and frequency. In this case, TikTok users will experience a relapse when using TikTok, where they will feel "preoccupied" to the point of forgetting the time that turns out to have been spent for hours, causing work to be delayed and neglected. According to Bandura (1986) another characteristic of social cognitive theory is its focus on the function of self-regulation. Not only do people behave to conform

to other people's tendencies; most of their behavior is motivated and regulated by self-assessment and internal standards relating to their own actions. So someone who experiences a relapse cannot regulate themselves in limiting their use of TikTok.

Conflict is an activity in ignoring or running away from problems that occur in the real world. As a result, over time, internet activities become the most important in life, controlling thoughts, feelings and behavior. In this case, the conflict in using TikTok can be seen from the awareness that the hours and quality of their sleep are very valuable, but they cannot control themselves to stop accessing TikTok when it is already their bedtime. With knowledge and action that are not in harmony, attention is needed, according to Bandura (1976) carrying out the attention process is very important in learning because without attention, new behavior (competence) will not be obtained. So TikTokers need to pay attention to their sleeping hours and try to stick to the specified sleeping hours.

CONCLUSION

There is addictive behavior. This is proven by the results of tests and analyzes that have been carried out, addictive behavior has a percentage of 74.83%. The dimension that provides the greatest substance to the addiction variable lies in the dimension of mood changes, because the content presented by TikTok can entertain and help make you feel better. This study reveals that addictive behavior among TikTok users in Jakarta is notably prevalent and can be effectively measured using the Bergen Social Media Addiction Scale (BSMAS), which comprises six indicators: salience, tolerance, mood modification, withdrawal, relapse, and conflict. The findings indicate that TikTok has become a central aspect of daily life for many users. Its perceived importance is reflected in a dramatic increase in average usage time, from 95 minutes per day in 2022 to 1,408 minutes per week in 2023. Many users habitually open the app at the start of their day to access entertainment or updated information, suggesting that TikTok has become a routine and prioritized digital behavior.

Over time, individuals who were initially indifferent or uninterested in the platform often adapt to its usage, gradually increasing their engagement as they are influenced by environmental cues and habitual behavior. This pattern reflects the development of tolerance, where increasing exposure is needed to derive the same satisfaction. The app's ability to modify mood also plays a significant role in sustaining user engagement. Through algorithmically curated content, TikTok provides a comforting and immersive experience that helps users temporarily escape stress or emotional fatigue. This form of mood regulation often reinforces continued use and deepens dependency.

At the same time, the study identifies signs of social withdrawal among users, as many tend to reduce direct interpersonal interactions in favor of time spent on the app. This often leads to neglected quality time with family or friends, reflecting a shift from offline to online social engagement. Relapse is another concerning symptom, as users frequently struggle to control their screen time and report losing track of time while using TikTok. This results in postponed responsibilities and disrupted daily routines, indicating weakened self-regulation. Despite recognizing the adverse effects of their behavior—such as sleep disturbance and reduced productivity—many users still find it difficult to detach from the platform, especially before bedtime. This internal conflict highlights a state in which users are caught between awareness of harm and an inability to modify their behavior. Overall, the findings demonstrate that TikTok use among Jakarta users aligns strongly with multiple dimensions of social media addiction, calling attention to the need for digital literacy and intervention strategies hat promote healthier engagement.

Overall, this study links addictive behavior to Bandura's social cognitive theory, which emphasizes that behavior develops through the interaction of habits, environment, and self-evaluation. When attention and self-control are weak, addiction to social media such as TikTok can easily form. Based on the researcher's direct experience in this research process, there are several limitations experienced and can be several factors to be paid more attention to by future researchers, where the number of respondents is limited in terms of geography and the number of respondents and the

questionnaire is not yet in-depth and detailed. Based on the conclusions, implications, and limitations of the research that have been explained above, the researcher provides suggestions for further research to use the interview method and provide open statement items to several respondents to support the questionnaire data, so that the data obtained is more and supports each other, as well as increasing the number of respondents and conducting research in different places.

REFERENCES

Andreassen, C. S., Billieux, J., Griffiths, M. D., Kuss, D. J., Demetrovics, Z., Mazzoni, E., & Pallesen, S. (2016). The relationship between addictive use of social media and video games and symptoms of psychiatric disorders: A large-scale cross-sectional study. *Psychology of Addictive Behaviors*, 30(2), 252–262. Available from: https://doi.org/10.1037/adb0000160

Bozzola, E., Spina, G., & Agostiniani, R. (2022). The Use of Social Media in Children and Adolescents: Scoping Review on the Potential Risks. *International Journal of Environmental Research and Public Health, 19(16). https://doi.org/10.3390/ijerph19169960*

Cao, X., Gong, M., Yu, L., & Dai, B. (2020). Exploring the mechanism of social media addiction: an empirical study from WeChat users. *Internet Research*, 30(4), 1305–1328. https://doi.org/10.1108/INTR-08-2019-0347

D'Arienzo, M., Boursier, V., & Griffiths, M. (2019). Addiction to Social Media and Attachment Styles: A Systematic Literature Review. *International Journal of Mental Health and Addiction, 17 (4).* https://doi.org/10.1007/s11469-019-00082-5

Jiang, Y. (2019). Research on TikTok APP Based on User-Centric Theory. *Applied Science and Innovative Research, 3(1).* http://dx.doi.org/10.22158/asir.v3n1p28

Khatimah, K., Taufik, D., Irawan, R., & Kunci, K. (2023). Faktor Mempengaruhi Perilaku Kecanduan Sosial Media. *International Journal of Educational Resources.*

Kwon, Hyeokkoo Eric., So, Hyunji., Han, Sang Pil., Oh, Wonseok. (2016). Excessive Dependence on Mobile Social Apps: A Rational Addiction Perspective. *Information Systems Research, 27(4).* Available from: https://doi/10.1287/isre.2016.0658

Lin, I., Shen, Y., Shih, M., & Ho, C. (2023). Short Video Addiction on the Interaction of Creative Self-Efficacy and Career Interest to Innovative Design Profession Students. *Healthcare, 11(4).* http://dx.doi.org/10.3390/healthcare11040579

Ma'una, S., Islamiyah, I., & Iqlima, Z. (2021). Faktor-Faktor Penyebab Tingginya Minat Generasi Post-Millenial Indonesia Terhadap Penggunaan Aplikasi Tik-Tok. *Social Science Educational Research, 2(1).*

Montag, C., Yang, H., & Elhai, J. (2021). On the Psychology of TikTok Use: A First Glimpse from Empirical Findings. *Frontiers in Public Health, 9.* http://dx.doi.org/10.3389/fpubh.2021.641673

Meinarni, N., Pande, N., Willdahlia, A., & Winatha, K. (2022). Analysis of the Positive and Negative Impacts of Using Tiktok For Generation Z During Pandemic. *Journal of Digital Law and Policy, 1(2).* http://dx.doi.org/10.2991/assehr.k.200129.152

Neng, H., & Abidin, Y. (2023). The International Journal of Education Management and Sociology the Impact of Using Tiktok on Student Lifestyles Case Study at Indonesian Education University Bandung Cibiru Campus. *The International Journal of Education Management and Sociology The Impact of Using Tiktok on Student Lifestyles Case Study at Indonesian Education University Bandung Cibiru Campus, 2(2).*

Qin, Y., Omar, B., & Musetti, A. (2022). The addiction behavior of short-form video app TikTok: The information quality and system quality perspective. *Frontiers in Psychology*, *13.* https://doi.org/10.3389/fpsyg.2022.932805

Sabir, I., Nasim, I., Majid, M., Mahmud, M., & Sabir, N. (2020). TikTok Addictions and Its Disorders among Youth of Pakistan. *Scholedge International Journal of Multidisciplinary & Allied Studies ISSN 2394-336X, 7(6).* https://doi.org/10.19085/sijmas070602

Scherr, S., & Wang, K. (2021). Explaining the success of social media with gratification niches: Motivations behind daytime, nighttime, and active use of TikTok in China. *Computers in Human Behavior, 124*. https://doi.org/10.1016/j.chb.2021.106893

Shin, Na Young. (2022). Psychometric Properties of the Bergen Social Media Addiction Scale in Korean Young Adults. *Psychiatry Investigation, 19(5).* Available from: https://doi.org/10.30773/pi.2021.0294

Swathi, G., Devakumar, C., Xiao, J., & Khan, T. (2020). A Study to Analyse The Impact of Tiktok App on Students Academics and Psychology. *Journal of Emerging Technologies and Innovative Research, 7(3).*

Wong, L. H., Chan, T. W., Chen, W., Looi, C. K., Chen, Z. H., Liao, C. C. Y., King, R. B., & Wong, S. L. (2020). IDC theory: interest and the interest loop. *Research and Practice in Technology Enhanced Learning*, *15*(1). https://doi.org/10.1186/s41039-020-0123-2

Yang, Y. (2023). Reasons for Teenagers' Habitual Use of Social Media: A Case Study of TikTok. *SHS Web of Conferences*, *155*, 02006. https://doi.org/10.1051/shsconf/202315502006

Yaqi, Z., Lee, J., & Liu, S. (2021). Research on the Uses and Gratifications of Tiktok (Douyin short video). *International Journal of Content, 17(1). https://doi.org/10.5392/IJoC.2021.17.1.037*

Ye, J., Wu, Y., & Chen, M. (2022). Effects of Short Video Addiction on the Motivation and Well-Being of Chinese Vocational College. *Frontiers in Public Health, 10. https://doi.org/10.3389/fpubh.2022.847672.*

Yu, L., Cao, X., Liu, Z. dan Wang, J. (2018). Excessive Social Media Use at Work: Exploring the Effects of Social Media Overload on Job Performance. *Journal of Information Technology and People*. 31 (6), 1091-1112. Available from: https://doi.org/10.1108/ITP-10-2016-0237

Yanuardianto, Elga. (2019). Teori Kognitif Sosial Albert Bandura. *Jurnal Auladuna, 1(02).*

Databoks, Pengguna Media Sosial Global Paling Sering Habiskan Waktu di TikTok Ketimbang Facebook, Retrieved on https://databoks.katadata.co.id/datapublish/2023/02/13/pengguna-media-sosial-global-paling-sering-habiskan-waktu-di-tiktok-ketimbang-facebook