



Does TikTok Shape the Communication Behavior of Emerging Human Capital? A PLS-SEM Analysis of For You Page Exposure among University Students

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Abstract. This study examines whether exposure to TikTok's For You Page shapes the communication behavior of university students as emerging human capital. The study employed a quantitative explanatory design using a survey method involving 106 students from private universities in Depok City, Indonesia. Data were collected via an online questionnaire using a five-point Likert scale and analyzed using Partial Least Squares Structural Equation Modeling (PLS-SEM) in SmartPLS 4. The model tested the effect of TikTok For You Page exposure on students' communication behavior, including language style, self-expression, interaction patterns, communication responses, and digital communication practices. The results show that TikTok For You Page exposure did not significantly influence students' communication behavior, as indicated by a t-statistic of 0.974 and a p-value of 0.330. The R-square value of 0.146 indicates that TikTok exposure explained only 14.6% of the variance in communication behavior, while the remaining variance was influenced by other factors outside the model. These findings suggest that communication behavior is shaped not only by media exposure intensity but also by digital literacy, social environment, content type, and individual interpretation. The study contributes to current discussions in digital media and human capital research.

Keywords: Communication Behavior; Digital Media; Emerging Human Capital; PLS-SEM; TikTok.

1. INTRODUCTION

TikTok's rapid expansion has transformed how young people consume information, express their identities, and engage in digital communication. Unlike previous social networking sites that relied primarily on friendship networks, TikTok is driven by short-form videos, algorithmic recommendations, and highly personalized content on the For You Page. This platform architecture makes TikTok not just an entertainment medium but also a socio-technical environment where students encounter language styles, trends, humor, opinions, consumer references, and symbolic expressions that can influence how they communicate in their daily lives (Montag et al., 2021; Scherr & Wang, 2021; Vaterlaus & Winter, 2021).

The For You Page is TikTok's communicative powerhouse because it curates content based on user interactions, viewing behavior, and algorithmic inference. This means that students are not only actively selecting content but also continually exposed to content selected by the platform. Algorithmic personalization can shape users' sense of identity, social belonging, and perceived relevance of content, while encouraging repeat engagement. Users often develop an "algorithmic self," negotiating agency with artificial intelligence, and interpreting the platform as a responsive system that reflects their preferences and social identities (Bhandari & Bimo, 2022; Kang & Lou, 2022; Lee et al., 2022). TikTok's

personalization can decrease the frequency and duration of use, suggesting that the For You Page plays a powerful role in maintaining engagement (Dekker et al., 2025).

However, the intensity of exposure alone does not automatically result in behavioral change. TikTok use is mediated by psychological motives, content quality, user engagement, and the social context in which users interpret media messages. While enjoyment, flow experiences, escapist motivation, and concentration may contribute to intensive or problematic TikTok use, these factors do not always translate into direct communication effects (Gu et al., 2022; Qin et al., 2022; Zsila et al., 2025). Similarly, participation in viral TikTok challenges is driven by entertainment, social interaction, support, information sharing, and escapism, suggesting that TikTok behavior is multidimensional and not simply a matter of screen time (Falgoust et al., 2022).

Among college students, TikTok is particularly important because it represents the development of human capital. Their communication behavior is part of the formation of broader competencies, including digital literacy, interpersonal adaptability, self-presentation, and ethical participation in online spaces. Cross-cultural studies have shown that TikTok use varies by cultural values and socialization patterns, suggesting that its effects may not be generalizable across all college student populations (Deng et al., 2024). TikTok's personalization may also influence perceptions of social connectedness, particularly because the platform prioritizes identity-relevant media content over direct interpersonal interactions (Taylor & Chen, 2024). Among college students, TikTok engagement has been linked to self-perception and psychological interpretations of digital experiences, suggesting that the platform may be a space where students negotiate who they are and how they relate to others (Zhu et al., 2024). From a marketing and business communication perspective, TikTok also shapes how young audiences respond to influencers, humor, and hedonic experiences, further demonstrating its relevance to digital communication and behavioral studies (Barta et al., 2023).

At the same time, TikTok's role in higher education is becoming increasingly visible. Students use social media not only for entertainment but also for collaboration, information seeking, discussion, and learning-related activities (Smith & Storrs, 2023). Other studies have shown that perceived usefulness and gratification influence users' intentions to access higher education content on TikTok, while systematic reviews suggest that TikTok can support learning outcomes when implemented with clear pedagogical and contextual considerations (Rahimullah et al., 2022; Yang et al., 2025). More broadly, social media use can influence academic engagement and performance, suggesting that digital platforms are increasingly

linked to the development of student competencies and human capital (Shafiq & Parveen, 2023). Many digital media studies rely on self-reported exposure, although self-reported media use may not accurately reflect actual use (Parry et al., 2021). Therefore, by focusing on students, this study discusses digital media, knowledge, human capital, marketing communications, and ethical digital participation in an algorithmic media environment.

2. METHOD

This study employed an exploratory quantitative research design to examine whether exposure to TikTok's For You Page shapes students' communication behavior as a developing human capital. A quantitative design was deemed appropriate because the study aimed to measure the relationship between clearly defined variables and to test proposed statistical causal pathways. The exploratory approach was used because the study not only describes students' use of TikTok but also seeks to explain the extent to which exposure to the For You Page can predict students' communication behavior. This design is consistent with the principles of quantitative research, which emphasizes variable measurement, hypothesis testing, and statistical explanation of relationships between constructs (Creswell & Creswell, 2023).

The study population consisted of active students enrolled at a private university in Depok City, Indonesia, who use TikTok and have experience viewing content on the For You Page. The sample consisted of 106 respondents who met the inclusion criteria. The sampling technique used was purposive sampling. Criteria included being an active student at a private university in Depok, actively using TikTok, having viewed For You Page content, and being willing to complete a questionnaire. Data were collected through an online questionnaire distributed using Google Forms. All indicators were measured using a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

Data were analyzed using Structural Equation Modeling-Partial Least Squares with SmartPLS 4. PLS-SEM. The analysis was conducted in two stages: measurement model evaluation and structural model evaluation. The measurement model was assessed through outer loadings, construct reliability, convergent validity, discriminant validity, and collinearity statistics. Indicators with outer loadings below the recommended threshold were reviewed and, if necessary, removed from the model to improve measurement quality. The structural model was then evaluated to determine the relationship between TikTok For You Page exposure and students' communication behavior. This assessment included R-squared, F-statistics, path coefficients, t-statistics, and p-values obtained through bootstrapping. The hypothesis was

accepted when the t-statistic exceeded 1.96, and the p-value was less than 0.05. These criteria are commonly used in PLS-SEM to determine the significance of hypothesized relationships between constructs (Hair et al., 2022). Through this procedure, this study not only assesses whether exposure to the TikTok For You Page influences students' communication behavior, but also the model's strength and explanatory power.

3. RESULTS AND DISCUSSION

Descriptive Statistics of the Observed Indicators

The descriptive statistics indicate that respondents generally agreed with the questionnaire items. The mean scores for TikTok For You Page exposure ranged from 4.42 to 4.64, while those for students' communication behavior ranged from 4.34 to 4.67. This pattern suggests that the respondents were familiar with TikTok's For You Page and tended to evaluate their communication behavior positively. However, descriptive statistics alone cannot determine whether the indicators adequately represent the latent constructs; therefore, the measurement model was further assessed using outer loadings, reliability, convergent validity, discriminant validity, and collinearity diagnostics.

Table 1. Descriptive Statistics of Initial Indicators.

Indicator	N	Min.	Max.	Mean	Std. Dev.
X1_15	106	3	5	4.42	0.53
X1_4	106	4	5	4.64	0.48
X1_6	106	2	5	4.48	0.55
Y1_1	106	4	5	4.67	0.47
Y1_10	106	3	5	4.42	0.53
Y1_4	106	4	5	4.34	0.47
Y1_6	106	2	5	4.42	0.55
Y1_9	106	4	5	4.57	0.50

Note. X1 refers to TikTok For You Page exposure, while Y1 refers to students' communication behavior. The results show a relatively high response tendency across indicators, but measurement validity was assessed using the outer model.

Measurement Model Assessment

The initial measurement model included three indicators of TikTok For You Page exposure and five indicators of students' communication behavior. The outer loading results showed that several indicators did not meet the recommended threshold of 0.70. Indicators with low or inconsistent loadings were therefore removed from the revised model, while one indicator that showed a negative loading was re-examined and adjusted to align with the measurement direction. The final measurement model retained X1_4 as the indicator of TikTok

For You Page exposure and Y1_1 as the indicator of students' communication behavior. Both retained indicators met the minimum loading criterion, with X1_4 obtaining an outer loading of 0.921 and Y1_1 obtaining an outer loading of 0.739.

Table 2. Outer Loading of the Revised Measurement Model.

Construct	Indicator	Outer Loading	Decision
TikTok For You Page Exposure (X1)	X1_4	0.921	Retained
Students' Communication Behavior (Y1)	Y1_1	0.739	Retained after score-direction adjustment

The revised model also produced Cronbach's alpha, rho_A, composite reliability, and average variance extracted (AVE) values of 1.000 for both constructs. These values indicate that the single-indicator constructs met the reliability and convergent validity criteria. Nevertheless, they should not be interpreted in the same way as multi-indicator constructs. Because each construct was represented by a single item in the revised model, the reliability values mainly reflect single-item measurement rather than strong internal consistency across multiple indicators.

Table 3. Construct Reliability and Validity of the Revised Model.

Construct	Cronbach's Alpha	rho_A	Composite Reliability	AVE
TikTok For You Page Exposure (X1)	1.000	1.000	1.000	1.000
Students' Communication Behavior (Y1)	1.000	1.000	1.000	1.000

Table 4. Collinearity Statistics.

Indicator	VIF	Interpretation
X1_4	1.002	No collinearity problem
Y1_1	1.160	No collinearity problem
X1 → Y1	1.000	No collinearity problem in the structural model

The collinearity statistics also indicated that the retained indicators did not suffer from multicollinearity problems. The VIF value for X1_4 was 1.002, and the VIF value for Y1_1 was 1.160. Both values were below the commonly used threshold of 5.00. The inner VIF for the relationship between X1 and Y1 was also 1.000, indicating that collinearity was not a concern in the structural relationship tested in this study.

Structural Model Assessment

The structural model was evaluated using R-squared, F-statistic, path coefficient, and bootstrapping results. The R-square value for students' communication behavior was 0.146, while the adjusted R-square was 0.139. This means that TikTok For You Page exposure explained 14.6% of the variance in students' communication behavior. The model's explanatory

power is therefore weak. In other words, students' communication behavior was not sufficiently explained by TikTok For You Page exposure alone. Other factors, such as peer interaction, family communication patterns, campus culture, personality traits, digital literacy, content type, and usage of other social media platforms, may explain a much larger proportion of communication behavior among university students.

Table 5. R-Square Result.

Dependent Variable	R-Square	Adjusted R-Square	Interpretation
Students' Communication Behavior (Y1)	0.146	0.139	Weak explanatory power

The f-square value for the relationship between TikTok For You Page exposure and students' communication behavior was 0.170. This indicates a small-to-moderate effect size. However, effect size should not be interpreted separately from the significance test. Although the effect size suggests that TikTok For You Page exposure contributed some explanatory value to the model, the bootstrapping results show whether this contribution was statistically significant.

Table 6. Effect Size.

Relationship	f-square	Interpretation
TikTok For You Page Exposure (X1)→Students' Communication Behavior (Y1)	0.170	Small to moderate effect

Model Fit

The model fit indices were also reviewed as supplementary information. The SRMR value was 0.132, which was above the generally accepted cut-off for model fit. The NFI value was -0.104, indicating a weak overall fit. These results reinforce the need to interpret the findings cautiously, especially because the final measurement model relied on single indicators for both constructs. The weak fit suggests that the model should be improved in future studies by strengthening the measurement instrument and incorporating additional explanatory variables.

Table 7. Model Fit Indices.

Fit Index	Saturated Model	Estimated Model	Interpretation
SRMR	0.132	0.132	Above the ideal threshold
d_ ULS	0.626	0.626	Supplementary fit information
d_ G	0.132	0.132	Supplementary fit information
Chi-square	98.772	98.772	Supplementary fit information
NFI	-0.104	-0.104	Weak model fit

Hypothesis Testing

The hypothesis test examined whether TikTok For You Page exposure significantly influenced students' communication behavior. The original sample coefficient was -0.382, indicating a negative direction. However, the t-statistic was 0.974, and the p-value was 0.330. Since the t-statistic was below 1.96 and the p-value was above 0.05, the relationship was not statistically significant. Therefore, the null hypothesis was accepted, and the alternative hypothesis was rejected. The result indicates that TikTok For You Page exposure did not significantly shape the communication behavior of university students in this sample.

Table 8. Path Coefficient and Bootstrapping Result.

Relationship	Original Sample	Sample Mean	STDEV	t-statistics	p-value	Decision
X1 → Y1	-0.382	-0.178	0.392	0.974	0.330	Not significant; H0 accepted

4. DISCUSSION

Although TikTok's For You Page is designed to provide personalized, highly engaging content, the results indicate that exposure intensity alone does not significantly predict students' communication behavior. The relationship between exposure to TikTok's For You Page and students' communication behavior is negative, but statistically insignificant. This means that the observed coefficient should not be interpreted as evidence that TikTok reduces communication behavior. Rather, it should be read as a weak and unstable trend in the sample that does not meet statistical criteria for significance.

These results can be understood in the context of the nature of algorithmic media exposure. TikTok's For You Page personalizes content based on user behavior, interactions, and inferred preferences. This personalization can make the platform highly engaging because users continually receive content that appears relevant to their interests. However, engagement with personalized content does not always lead to measurable changes in communication behavior. Students may watch multiple videos without adopting the language style, gestures, interaction patterns, or digital expressions displayed in those videos.

The non-significant finding also supports the argument that media effects are not automatic. TikTok may expose students to diverse communication styles, but converting this exposure into behavior requires additional processes, including attention, interpretation, internalization, social reinforcement, and contextual relevance. Studies on TikTok use and gratifications indicate that young adults use the platform for a variety of reasons, including entertainment, passing time, information seeking, and social connection (Scherr & Wang,

2021; Vaterlaus & Winter, 2021). These motives can lead to different communication outcomes. For example, students who use TikTok primarily for entertainment may passively consume content, while those who use it for self-expression or social interaction may be more likely to imitate or adapt the platform's communication style.

The low R-square value further suggests that college students' communication behavior is a complex construct that cannot be explained solely by exposure intensity to the For You Page. Communication behavior is shaped by interpersonal networks, family background, campus interactions, peer norms, organizational experiences, personality, and digital literacy. In this regard, college students are not passive recipients of algorithmic content. They are developing human capital possessing varying levels of action skills, critical awareness, and communicative competence. Their responses to TikTok content are mediated by social context and personal interpretations. Therefore, a student might repeatedly watch viral language trends on TikTok but still choose not to use them in academic, professional, or interpersonal settings.

These findings are also relevant to the distinction between exposure and engagement. Exposure refers to the frequency or intensity of encounters with content, while engagement involves deeper cognitive, emotional, and behavioral participation. However, intensive use does not necessarily produce the same behavioral outcomes for all users. Some students may perceive TikTok as a source of relaxation, while others may use it as a space for interaction, identity performance, or knowledge acquisition.

From a human capital development perspective, the results suggest that digital communication competencies do not automatically emerge from platform exposure. Students may be digitally active, but digital activity does not necessarily indicate digital literacy, ethical communication, or productive participation. These findings are important for higher education institutions because student communication behavior is part of their readiness to participate in academic, organizational, and professional environments. If TikTok is used without a critical understanding, students may be exposed to viral trends, humor, and expressions, but may not necessarily develop reflective communication skills.

The methodological findings are also noteworthy. The initial measurement model contained several indicators that did not meet the expected threshold for external loadings. After model refinement, only one indicator per construct remained. While this improved the external loading results, it also narrowed the construct's conceptual scope. This condition may partially explain the weak model fit and insignificant structural relationships. In PLS-SEM, measurement quality significantly impacts the quality of structural estimates. Therefore, these

results should be interpreted as preliminary empirical indications rather than definitive conclusions about TikTok's influence on college students' communication behavior.

Overall, this study suggests that TikTok's For You Page should be understood as a potential influence rather than a deterministic force. The platform provides algorithmically curated content that can introduce students to new language styles, trends, and modes of expression. However, adoption of this form of communication depends on a broader ecosystem of personal, social, educational, and cultural factors. Therefore, the relationship between TikTok exposure and communication behavior should be examined through a more complex model that includes mediating and moderating variables such as digital literacy, content type, user motivation, peer influence, and communication self-efficacy.

5. CONCLUSION

This study found that exposure to the TikTok For You Page did not significantly influence college students' communication behavior. The path coefficient was negative, but the relationship was not statistically significant because the t-statistic was below 1.96 and the p-value was above 0.05. Therefore, the hypothesis that exposure to the TikTok For You Page significantly influences college students' communication behavior was not supported. The R-square value of 0.146 indicates that exposure to the TikTok For You Page accounted for only 14.6% of the variance in college students' communication behavior. This finding suggests that college students' communication behavior is more strongly influenced by factors outside the model tested. These may include peer interactions, family communication patterns, campus culture, personality, digital literacy, social media habits across various platforms, and the specific types of content consumed. Therefore, exposure to TikTok alone is insufficient to explain how college students communicate in academic, interpersonal, and digital contexts.

Theoretically, this study contributes to the literature on algorithmic media and digital communication by demonstrating that exposure to personalized short-form video content does not always lead to immediate behavioral change. These findings support a contextual understanding of media effects, where users retain the ability to interpret, accept, reject, or adapt media messages. Practically, this study highlights the importance of strengthening digital literacy among college students. Higher education institutions should focus not only on the duration of social media use but also on students' abilities to understand algorithms, evaluate content, communicate ethically, and manage their digital identities responsibly. This study also has limitations, so future studies should develop more robust multi-item instruments, include additional variables such as motivation, content type, engagement quality, peer influence, and

digital literacy, and consider mixed-methods designs to explore how students interpret and negotiate TikTok content in everyday communication.

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