

# Investigating Factors Associating with Online Shopping Behavior on TikTok Live Streaming in Generation Z

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**Abstract**— TikTok is an application that is currently very popular with the public. This research aims to study the behavior of users/consumers from Generation Z in using the live streaming feature on TikTok which leads to the desire and interest in making online purchases/shopping. The research was carried out using a purposive sampling method and collected data from 300 respondents from Generation Z. The research analysis was directed at the correlation between factors and the technology acceptance factors studied to gain insight regarding the activity of using live streaming technology on TikTok for online shopping activities. The expected output from this research is factors that influence the acceptance of live streaming technology on TikTok for online shopping activities among Generation Z and the correlation between these factors and acceptance factors. The output of this research will help uncover the factors causing the increase in the use of the live streaming feature on TikTok in attracting online shopping interest from Generation Z. The elements found can be helpful for business people, online shopping consumers, and parties interested in increasing shopping interest online which is caused by the availability of technological features added to social media applications.

**Keywords**— *technology acceptance; TikTok; live streaming; Generation Z; online shopping.*

## I. INTRODUCTION

Currently, social media has become a daily necessity for most of Generation Z, this can be proven by the inseparability of Generation Z from their smartphones [1]. According to

the Special Report, Digital 2023 at the beginning of 2023 [2], of the 276.4 million Indonesian population, 212.9 million of them are internet users. Social media users in Indonesia reach 154 million or 60.4% of the total population. What is interesting is that in Indonesia the number of cellular devices connected to the internet is 353.8 million, exceeding the total population or 128% of the total population. Based on the survey, 91% of Generation Z in the age range of 15-19 years are internet users. In Indonesia, there are five of the most widely used social media, namely WhatsApp, TikTok, YouTube, Instagram, and Facebook. The number of TikTok users in Indonesia has reached 109.9 million with an age range of over 18 years.

The development of social media technology makes it easier for people to take advantage of the various features available in the application. One example is the development of social media into social commerce. Social commerce is a relatively new concept that combines social media and e-commerce to create a unique shopping experience. Several social media applications such as Facebook, Instagram, and TikTok have morphed into social commerce.

Social commerce has become a new and successful platform leveraging the power of social networks to enhance the overall shopping experience for consumers. These new platforms are becoming increasingly popular among consumers, due to the ease of finding, sharing, and purchasing products easily within the social media they already use [3]. In business matters, social commerce provides an opportunity to connect with their target audience and drive sales in a more engaging and personalized way. Several features have been developed on social media

such as face filters, stories, duets, and stitches. One of the newest features is live-streaming sales.

In recent years, the use of live-streaming features on social media platforms has become increasingly popular. TikTok, a popular short video application, introduces live streaming as one of its features. Content creators have used this feature to interact with their followers and at the same time use it to promote products.

Based on researchers' observations and assumptions, brands that use the live streaming feature on TikTok for promotions can increase engagement and brand loyalty from their followers than those that do not use this feature. However, these initial assumptions and observations have not been supported by relevant research results. For this reason, researchers formulate research questions which also become problems for which solutions will be sought through this research activity.

This research aims to study the behavior of users/consumers from Generation Z in using the live streaming feature on TikTok which leads to the desire and interest in making online purchases/shopping. What factors influence the acceptance of Generation Z users/consumers in using the live streaming feature on TikTok related to their online shopping activities? What is the form of the relationship between these factors that can affect feature acceptance?

The results of this research will be useful for business people and prospective business people who want to take strategic steps in promoting their products to increase the number of sales, especially those targeting their market to Generation Z.

## **II. LITERATURE REVIEW**

Literature review on previous research conducted regarding the adoption of e-commerce technology. Several models were used in this research including TAM, TPB, and UTAUT. The main objective of this research relates to exploring and understanding human behavior related to online shopping interests and the use of

TikTok. Discussion of the variables supported by direct antecedents of behavioral intention to use social commerce technology are discussed in detail. In the context of using social commerce technology, Behavioral Intention can be defined as "The extent to which a user intends to use a system in the future" [4].

### **A. Information Quality and Service Quality**

According to [5] [6], Information Quality is the quality of relevance, adequacy, accuracy, and timeliness of information obtained by users. References [5] and [6], defines Service Quality as "overall support delivered by service providers" to ensure empathy, assurance, and responsiveness delivered to users. For this reason, Perceived Information Quality is expected to have a positive direct effect on users' intention to be interested in shopping online.

### **B. Satisfaction**

Satisfaction is obtained from positive experiences in using a service [5]. References [7,8,9] verifies that Satisfaction is an important variable in e-commerce studies. Therefore, satisfaction is estimated to have a positive direct influence on behavioral intention to use e-commerce technology.

### **C. Hedonic Motivation**

According to Kotler & Keller [10], hedonism is a condition in which society has a style to relate successes that have been achieved and failures caused by external factors. So, hedonic motivation is a value that exists within a person that can motivate him to achieve his satisfaction. Hedonic motivation is related to an individual's emotional nature, because when shopping they feel happy, sad, or disappointed. Thus, hedonic motivation is motivation that arises from within a person to carry out shopping activities to provide a shopping experience, relieve stress, and provide feelings of pleasure and satisfaction.

## D. Perceived Usefulness and Perceived Ease of Use

According to [11], [12], and [13] perceived usefulness is the extent to which a person believes the usefulness and benefits of using a particular technology can improve his performance, while perceived ease of use is the extent to which a person believes that the ease of using a particular technology will be free from effort. Furthermore, perceived usefulness is the extent to which consumers perceive that online shopping can improve their shopping experience and perceived ease of use is the extent to which consumers feel it is easy to interact with online shopping stores and can receive information about the products they need [14].

## E. Habit

Habit can be defined as the level of a person's tendency to carry out an action automatically based on previous learning [15]. The key to habits is repetition. The more often a person acts, the more likely it is that the action will become a habit. Although habits are based on actions performed in the past, most habits are not intentional in the sense of conscious or planned actions but are functional, goal-directed behaviors. Habits significantly influence usage intentions and behavior, both directly and indirectly.

After conducting a literature review, the theoretical model is presented in Fig. 1. Seven structural pathways are proposed which are all statistically significant and aligned with the predictions.

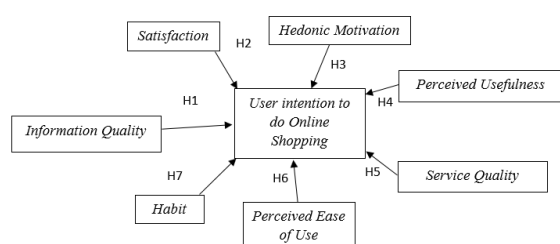


Figure 1. Research Model

## III. METHOD

This research is a field study that aims to develop theoretical knowledge with practical

implications regarding the factors that influence the use of the TikTok Shop live streaming feature to attract Generation Z shopping interest in Indonesia. Questionnaires were collected from young people who were in the age range of 13 - 28 years.

The literature review presents a comprehensive survey of previous research regarding variables influencing online shopping intentions and individual use of TikTok. Based on this review a theoretical model is developed that incorporates important variables and their relationships.

A self-administered questionnaire was used to measure the variables. To increase the validity and reliability of measurements wherever possible the questionnaire adapts existing measurement instruments used in previous studies. The questionnaire was prepared in two parts. The first section presents questions related to the respondent's profile including questions used to measure the variables Age, Gender, and Experience, as well as behavioral factors related to the time per week and hours per time the respondent uses TikTok. The second part presents questions related to the seven variables presented in the theoretical model.

Questionnaires were collected starting from junior high school, high school, and university level students, employees, and entrepreneurs in Indonesia. Any questionnaire that did not meet the definition of the target population was excluded from the sample. The final sample of 154 respondents was used in the study. The final sample was prepared for preliminary analysis using principal component factor analysis to assess the construct validity of the indicators for each latent variable and Cronbach's alpha coefficient to assess the reliability of the internal consistency of the indicators for each latent variable.

Furthermore, the result of the preliminary analysis was used to reveal: first, the correlation among variables employed in the study using Pearson Correlation; the second, the gender difference among females and males using T-Test analysis.

#### IV. RESULTS AND DISCUSSION

Result and Discussion contains the results, their relation with theory, and their comparisons with previous related studies.

##### A. RESULT

###### Profile of Respondents

Table 1 shows the age range and gender of Generation z respondents who use TikTok. Respondent data shows that those aged 23 use TikTok the most, while there is no significant difference regarding the gender of TikTok users.

Table 1. Profile of Respondents

Age	Frequency	Percent
13	1	.6
15	1	.6
16	2	1.3
17	10	6.5
18	9	5.8
19	13	8.4
20	11	7.1
21	22	14.3
22	27	17.5
23	30	19.5
24	11	7.1
25	2	1.3
26	6	3.9
27	7	4.5
28	2	1.3
Total	154	100.0
Gender	Frequency	Percent
Male	29	18.8
Female	125	81.2
Total	154	100.0

The data of behavioral variables on respondents' experiences of using TikTok and live streaming TikTok Shop are presented in Table 2.

Table 2. Respondents' Experience

Experience in Using TikTok		
	Frequency	Percent
<1 year	13	8.4
1 year	23	14.9
2 years	46	29.9
3 years	72	46.8
Total	154	100.0
Experience in Using Live Streaming TikTok Shop		
	Frequency	Percent
<6 months	59	38.3

6 – 12 months	62	40.3
>13 – 18 months	23	14.9
>18 months	10	6.5
Total	154	100.0

Table 3 shows how many times per week respondents watched live-streaming TikTok, as well as how many hours per time respondents spent on live-streaming TikTok Shop.

Table 3. Time Spent on Live Streaming TikTok Shop

Time/week	Frequency	Percent
1 time	34	22.1
2 times	35	22.7
3 times	30	19.5
4 times or more	55	35.7
Total	154	100.0
Hour/time	Frequency	Percent
<1 hour	120	77.9
1-2 hours	27	17.5
3-4 hours	3	1.9
5 hours or more	4	2.6
Total	154	100.0

###### Validity & Reliability Analysis

The results of the validity test using Component Factor Analysis and Reliability analysis using Cronbach's Alpha Coefficient are shown in Table 4 and Table 5.

Table 4. Validity Analysis

	Component			
	1	2	3	4
InfQ1	.411	.222	-.016	.618
InfQ2	.521	.291	.039	.468
InfQ3	.481	.319	.244	.433
HM1	.209	.140	.259	.808
HM2	.166	.280	.303	.764
HM3	.196	.249	.372	.580
Hb1	-.051	.124	.592	.472
Hb3	-.035	.095	.724	.279
Sat1	.340	.516	.259	.354
Sat2	.303	.631	.239	.329
Sat3	.245	.703	.175	.340
ServQ1	.137	.827	.310	.208
ServQ2	.284	.797	.310	.127
ServQ3	.322	.760	.252	.250
PEOU1	.589	.367	-.004	.139
PEOU2	.758	.243	.253	.247
PEOU3	.776	.261	.230	.224
PU1	.643	.286	.261	.397
PU2	.534	.204	.349	.239
PU3	.656	.263	.328	.277
BI1	.306	.315	.768	.113

BI2	.275	.337	.775	.162
BI3	.412	.253	.711	.054

Extraction Method: Principal Component Analysis.  
 Rotation Method: Equamax with Kaiser Normalization.

a. Rotation converged in 18 iterations.

Table 5. Reliability Analysis

Variabel	Cronbach's Alpha	Internal Consistency
Information Quality	.843	Good
Hedonic Motivation	.866	Good
Habit	.766	Acceptable
Satisfaction	.817	Good
Service Quality	.915	Excellent
Perceived Ease of Use	.827	Good
Perceived Usefulness	.847	Good
User intention to do Online Shopping	.929	Excellent

**Differences between Males and Females**

Gender difference between males and females was calculated using T-test and the result was shown on Table 6.

Table 6. Mean difference between Males and Females

Variable	Levene's Test for Equality of Variances		t	Statistical Significance (2-tailed)	Mean for Males – Mean for Females
	F	Statistical Significance			
A	2.164	.143	1.172	.243	.6714
Exp-T	.109	.741	-.921	.358	-.1840
Exp-ST	.044	.833	.235	.815	.0430
T/W	.169	.682	.182	.856	.0441
H/T	.544	.462	-.477	.634	-.0626
InfQ	.329	.567	.447	.656	.05977
HM	.590	.444	.326	.745	.05048
Hb	1.186	.278	.252	.801	.04979
Sat	.162	.688	2.733	.007	.35503
ServQ	2.359	.127	2.692	.008	.38308
PEOU	.403	.526	1.433	.154	.19439
PU	.125	.724	.544	.587	.08083
BI	.001	.972	.653	.515	.11834

**Correlation Analysis**

The graphical representation of correlation among variables presents on Figure 2 and is derived from Table 7 (statistically significant correlation, Table 6 (statistically significant difference between males and females)

Table 7. Correlation Analysis

	A	Exp-T	Exp-ST	T/W	H/T	InfQ	HM	Hb	Sat	ServQ	PEOU	PU	BI
A	1	-.189*	.124	.070	-.049	.063	-.012	.018	-.030	-.028	.042	-.004	-.004
Exp-T	-.189*	1	.414**	.133	.120	.134	.101	.003	.163*	.091	.010	.030	.031
Exp-ST	.124	.414**	1	.295**	.216**	.173*	.150	.073	.125	-.034	.063	-.016	.040
T/W	.070	.133	.295**	1	.298**	.261**	.253**	.209**	.270**	.248**	.255**	.271**	.196*
H/T	-.049	.120	.216**	.298**	1	.241**	.274**	.271**	.150	.130	.155	.125	.219**
InfQ	.063	.134	.173*	.261**	.241**	1	.593**	.345**	.644**	.568**	.631**	.611**	.517**
HM	-.012	.101	.150	.253**	.274**	.593**	1	.497**	.647**	.565**	.543**	.616**	.562**
Hb	.018	.003	.073	.209**	.271**	.345**	.497**	1	.443**	.419**	.307**	.441**	.522**
Sat	-.030	.163*	.125	.270**	.150	.644**	.647**	.443**	1	.813**	.649**	.700**	.595**
ServQ	-.028	.091	-.034	.248**	.130	.568**	.565**	.419**	.813**	1	.627**	.628**	.635**
PEOU	.042	.010	.063	.255**	.155	.631**	.543**	.307**	.649**	.627**	1	.754**	.532**
PU	-.004	.030	-.016	.271**	.125	.611**	.616**	.441**	.700**	.628**	.754**	1	.590**
BI	-.004	.031	.040	.196*	.219**	.517**	.562**	.522**	.595**	.635**	.532**	.590**	1

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

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

## B. DISCUSSION

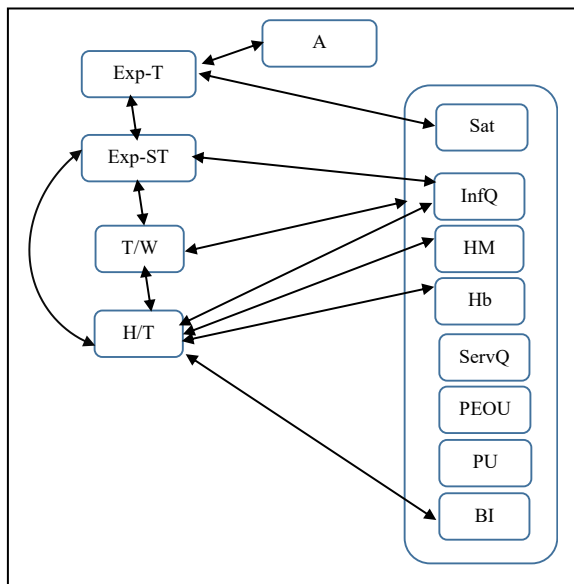


Figure 2. Significant associations among factors

It is seen from Figure 2 that:

- Experience using TikTok has a positive correlation with Age, Satisfaction, and Experience using TikTok Shop live streaming.
- The experience of using TikTok Shop live streaming also has a positive correlation

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with the time spent using TikTok Shop live streaming and Information Quality.

- Time spent on live streaming TikTok Shop has a positive correlation with behavioral factors.
- There are no significant differences based on gender in individual-related factors and behavioral factors.

## V. CONCLUSION

This research provides results regarding variable correlation analysis and causal influence on Behavioral Intention. The results partially and fully support the existing hypothesis. It is important to emphasize that these new findings need to be validated in future research.

This study aims to provide an overview of the buying behavior of Generation Z in making purchases through the TikTok Shop live streaming. These insights will be useful to marketing scholars and those seeking to do business with this generation. How to use the factors resulting from this research to attract Generation Z's shopping interest to buy products on social commerce.

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