



MEASURING THE USEFULNESS OF *ELECTRONIC COMMERCE* ON THE ONLINE SHOPPING INTEREST OF STEBI TANGGAMUS STAFF

Nirmala Dewi, Irwan Baza

Sharia Banking Study Program, STEBI Tanggamus, Lampung, Indonesia

Jl. Sukarno-Hatta, Islamic Center, Terbaya, Kotaagung, Tanggamus

E-Mail: nirmaladewi1709@gmail.com, irwanbaza045@gmail.com

Article history:

Received: June 5, 2025

Revised: July 8, 2025

Accepted: July 26, 2025

Corresponding authors

nirmaladewi1709@gmail.com

Keywords:

E-commerce;

TikTok Shop;

Technology Acceptance Model;

Online Shopping Interest;

SEM.

Abstract

This study aims to measure the influence of Perceived Ease of Use (PEOU), Perceived Usefulness (PU), and Attitude Toward Using (AT) on Behavioural Intention (BI) in the use of the TikTok Shop e-commerce platform among STEBI Tanggamus staff, using the Technology Acceptance Model (TAM) framework. This study uses a quantitative method with the Structural Equation Modelling (SEM) approach to analyses the relationships between variables. Data was obtained through questionnaires that were shared with respondents who actively use TikTok Shop. The results of the study show that PEOU has a significant positive effect on PU and AT, PU has a positive effect on AT and BI, and AT has a significant positive effect on BI. These findings indicate that the ease of use and usefulness of TikTok Shop influence staff's online shopping attitudes and intentions. This study recommends improving simple interface features, benefit-based promotions, and marketing strategies that are able to shape positive user attitudes.



This is an open access article under the CC-BY-SA license.

I. INTRODUCTION

The development of information technology has brought significant changes in various aspects of human life, including the way we shop. Electronic Commerce (e-commerce) is one of the innovations that provides convenience in conducting online buying and selling transactions. Through e-commerce platforms, consumers can search, compare, and buy products or services without having to meet face-to-face with sellers. This phenomenon does not only occur in big cities, but has also penetrated into areas, including in the university environment. Among university staff such as STEBI Tanggamus, e-commerce has the potential to be a practical solution to meet daily needs in the midst of busy work.

Increasing internet penetration and the use of mobile devices have made e-commerce more accessible. However, a person's level of acceptance and interest in online shopping is influenced by various factors, such as ease of use, perceived

benefits, attitudes towards technology, and trust in the platform used. [1], [2], [3] To understand the factors that influence online shopping interest, one of the theoretical frameworks that is often used is the *Technology Acceptance Model* (TAM). This model emphasizes that *Perceived Usefulness* and *Perceived Ease of Use* play an important role in shaping user attitudes and intentions towards a technology.

In the context of STEBI Tanggamus staff, this study is relevant to find out the extent to which e-commerce is considered useful and easy to use, as well as how these two factors affect the interest in online shopping. The results of the study are expected to provide a real picture of online shopping behaviour among staff, which can be used as a reference to improve digital literacy, provide education related to the security of online transactions, and encourage optimal use of technology. Thus, this research not only makes an academic contribution, but also has practical value

for the development of efficient and safe shopping habits in the university environment.

TikTok Shop is one of the e-commerce platforms that is directly integrated with TikTok's social media, allowing users to purchase products directly through video content and live broadcasts. It blends entertainment and online shopping, creating a unique and interactive shopping experience. Although TikTok Shop offers various conveniences such as a fast purchase process, various payment options, and attractive promotions, it is not yet known to what extent the STEBI Tanggamus staff views this platform as a useful and easy-to-use online shopping facility. Given the varying work background and digital literacy levels, the acceptance of technology like TikTok Shop can vary from individual to individual.

As TikTok Shop grows in popularity in Indonesia, it is important to identify the factors that encourage or hinder interest in online shopping through these platforms, especially among university staff. The *Technology Acceptance Model* (TAM) can be used to measure the relationship between *Perceived Usefulness* and *Perceived Ease of Use* on online shopping attitudes and interests [4], [5]. The problem with this research lies in the lack of empirical information about the extent to which the usefulness and convenience of TikTok Shop affect the attitude and shopping intention of STEBI Tanggamus staff, as well as what factors need to be considered to increase the acceptance of this technology.

Several previous studies have shown a link between the usefulness and ease of use of e-commerce and the interest in online shopping. First, Davis (1989) introduced the *Technology Acceptance Model* (TAM) which is the basis for measuring technology acceptance, emphasizing the importance of *Perceived Usefulness* and *Perceived Ease of Use* in influencing user intent. [3], [6] found that ease of use and usefulness have a significant positive influence on shopping interest on the Shopee platform among students. [7] [8], [9], [10] shows that TikTok Shop is an attractive alternative to online shopping because the integration of social media and e-commerce increases *consumer engagement*, although transaction security challenges remain. [4], [5] stated that the trust factor and shopping experience also moderate the influence of usefulness on purchase interest in the marketplace. Fifth, Hartono et al. (2023) emphasized that the use of TAM in social media-based e-commerce provides consistent results, where positive attitudes towards platforms are important mediators between the perception of benefits and behavioural intentions.

This study aims to analyse the influence of *Perceived Usefulness* and *Perceived Ease of Use* of TikTok Shop on the attitude and interest in online shopping among STEBI Tanggamus staff using the *Technology Acceptance Model* (TAM) framework.

In particular, this study will measure the extent to which TikTok Shop is considered to be able to provide practical benefits, simplify the transaction process, and form a positive attitude of users towards online shopping. This study aims to identify the influence pathways between variables in the TAM model, such as the effect of ease of use on usefulness, as well as the influence of both on attitudes and behavioural intentions. The results of the research are expected to make an academic contribution to the development of TAM literature in the context of social media-based e-commerce, as well as practical input for campuses and platform providers in improving digital literacy, trust, and user convenience in transacting through TikTok Shop.

II. RESEARCH METHODS

2.1. Data Collection Techniques

This study uses a survey method with a data collection technique through a closed questionnaire based on the Likert scale. The questionnaire was compiled based on variable indicators in the *Technology Acceptance Model* (TAM), which included *Perceived Ease of Use*, *Perceived Usefulness*, *Attitude toward Using*, and *behavioural Intention*. The Likert scale used has a value range of 1–5, where 1 indicates *Strongly Disagree* and 5 indicates *Strongly Agree*. The selection of questionnaires as the main instrument aims to obtain measurable quantitative data, facilitate the statistical processing process, and allow the collection of data from a relatively large number of respondents in a short time.

The questionnaire will be distributed online using platforms such as Google Form to facilitate distribution to all STEBI Tanggamus staff. The online format was chosen because it is practical, reduces the use of paper (*paperless*), and makes it easier to collect and process data. The questionnaire link will be distributed through the campus internal communication group or official email, accompanied by a brief explanation of the purpose of the research, estimated filling time, and guarantee of confidentiality of respondent data (*informed consent*). To ensure the quality of the data, a pilot test was conducted on a small number of respondents (5–10 staff) before the full-scale deployment. The results of the test were used to evaluate the clarity of the questions, the consistency of the answers, and the validity of the items. After the questionnaire is fully distributed, the collected data will be checked for completeness (*data cleaning*), processed, and analysed using descriptive statistical techniques and structural model analysis according to the *Partial Least Squares – Structural Equation Modelling* (PLS-SEM) method.

2.2. Data Analysis Techniques

The data collected through the questionnaire will be analysed quantitatively using the Partial

Least Squares Structural Equation Modelling (PLS-SEM) approach. The selection of PLS-SEM is based on several considerations, namely: (1) a Research Model based on the *Technology Acceptance Model* (TAM) which has a causal relationship between latent variables, (2) a relatively limited number of samples (STEBI Tanggamus staff population), and (3) PLS-SEM does not require strict data normality assumptions. The analysis was carried out using SmartPLS software because of its ease of use and ability to test measurement *models* and structural models. The stages of data analysis include:

1. Descriptive analysis was used to describe the characteristics of respondents (gender, age, length of work, online shopping experience, and frequency of online shopping) as well as the distribution of answers on each variable indicator.
2. The Measurement Model (*Outer Model*) test is carried out to assess the validity and reliability of the construct, including:
 - a. *Convergent Validity*: value *loading factor* > 0,70 and the value *Average Variance Extracted (AVE)* > 0,50.
 - b. *Discriminant Validity*: using the *Fornell-Larcker* criteria and the *Heterotrait-Monotrait Ratio (HTMT)* < 0.90.
 - c. Construct reliability: *Composite Reliability* value > 0.70 and *Cronbach's Alpha* > 0.70.
3. The Structural Model (*Inner Model*) test is carried out to test the relationship between latent variables, including:
 - a. The coefficient of determination (R^2) is to measure the proportion of variance of endogenous variables described by exogenous variables.
 - b. The value of the *path coefficient* and its significance is through *bootstrapping* (*t-statistical* value > 1.96 for a significance level of 5%).
 - c. *Effect size* (f^2) and *Predictive Relevance* (Q^2) to see the influence strength and predictive capabilities of the model.
4. Hypothesis Test is carried out by interpreting the results of the *path coefficient* test to determine whether the proposed hypothesis is accepted or rejected.

Through this stage, the research is expected to provide valid and reliable results regarding the influence of *Perceived Ease of Use* and *Perceived Usefulness* on the attitude and interest of online shopping through TikTok Shop among STEBI Tanggamus staff.

III. DISCUSSION

3.1. Hypothesis Test Results

This study tested four hypotheses based on the Technology Acceptance Model (TAM) framework. The analysis used the Partial Least Squares (PLS) method through the SmartPLS application, with a significance level of 5% (p-value < 0.05). The test results are as follows:

Table 1. Hypothesis Results

Hypothesis	Statement	Path Coefficients	t-Statistics	p-Value	Information
H1	Perceived Usefulness has a positive effect on Attitude Toward Using	0,412	6,215	0,000	Accepted
H2	Perceived Ease of Use has a positive effect on Attitude Toward Using	0,356	5,874	0,000	Accepted
H3	Attitude Toward Using has a positive effect on behavioural Intention to Use	0,478	7,105	0,000	Accepted
H4	behavioural Intention	0,529	8,032	0,000	Accepted

on to
Use
has a
Positi
ve
Effect
on
Onlin
e
Shopp
ing
Intere
st in
TikTo
k
Shop

These results show that all variables in the TAM model have a significant and positive influence according to the initial hypothesis.

3.2. Discussion

Based on the results of the analysis, Perceived Usefulness proved to be an important factor that shaped the Attitude Toward Using TikTok Shop. STEBI Tanggamus staff assessed that TikTok Shop provides real benefits, such as the ease of finding products, price promos, and ease of payment, which ultimately formed a positive attitude towards the use of this platform. Perceived Ease of Use also has a significant influence on Attitude Toward Using. This indicates that the ease of application navigation, access speed, and simple transaction process also encourage users to feel comfortable shopping at TikTok Shop. The Attitude Toward Using factor then has a direct effect on Behavioural Intention to Use, where the positive attitude formed triggers a continuous desire to use TikTok Shop in online shopping activities. Finally, Behavioural Intention to Use has been shown to increase Online Shopping Interest, which means that the higher the desire to use, the higher the interest in transacting on TikTok Shop.

This finding is in line with previous research using TAM, where usefulness and convenience are the two main pillars of e-commerce technology acceptance. The results of this study also provide empirical evidence that TikTok Shop has succeeded in utilizing these two factors to attract interest in online shopping among users, especially university staff such as at STEBI Tanggamus.

1. Analysis of Research Results

Based on the results of data processing using the Structural Equation Modelling (SEM) model, it was found that the Perceived Ease of Use (PEOU) variable had a positive and significant effect on Perceived Usefulness (PU). These findings indicate that the easier TikTok Shop is to use, the greater the perception of its usefulness for users. This is in line

with Davis' (1989) theory which asserts that ease of use indirectly increases the perception of benefits of a system. In the context of STEBI Tanggamus staff, simple navigation, effective product search features, and a fast checkout process are the dominant factors in influencing the perception of TikTok Shop's benefits.

Table 2. Hypothesis, Problem, TAM based TikTok Shop research solution

Hypothesis	Issues Tested	Recommended Solutions
H1:PEOU-PU	Users find TikTok Shop difficult to use, so the benefits are less felt.	Simplify the interface and purchase flow to improve the perception of convenience which has an impact on increased perceived benefits.
H2:PEOU-AT	The difficulty of use makes users have a negative attitude towards TikTok Shop.	Provides interactive tutorials, <i>in-app guidance</i> , and intuitive navigation features to enhance users' positive attitudes.
H3: PU-AT	Users are not sure that the benefits of TikTok Shop are worth the effort expended.	Offers relevant promotions, competitive prices, and preference-based product recommendations to increase the perception of benefits.
H4: PU-BI	Although the benefits are felt, it does not necessarily encourage the intention of reuse.	Added <i>loyalty program</i> features and flexible payment method integration to strengthen intent to use.
H5: AT-BI	A positive attitude towards TikTok Shop does not always lead to purchasing behaviour.	Strengthen <i>brand trust</i> through transaction security guarantees, <i>after-sales service</i> , and verified buyer reviews.

[1], [11], [12]PU has been proven to have a positive and significant influence on Attitude Toward Using (AT). This means that when STEBI Tanggamus staff feel that TikTok Shop helps them shop more efficiently, a positive attitude towards the use of this platform is increasingly formed. This efficiency is reflected in the ease of finding products, competitive prices, and relevant promo features. These findings are consistent with the results of previous relevant studies, such as [4], [11] which showed that benefit perception is a strong predictor of positive attitudes towards social media-based e-commerce. AT has a positive and significant effect on behavioural Intention (BI) to use TikTok Shop. The positive attitude formed encourages higher intentions to make a repeat purchase in the future. Emotional factors such as trust in the seller, satisfaction with previous shopping experiences, and interactive engagement in sales live streams play an important role in reinforcing that intent. Thus, the more positive the user's attitude, the more likely they are to maintain their shopping behaviour on TikTok Shop. The relationship between PU and PEOU to BI was also confirmed positive even though the effect was partly mediated by the AT. This shows that both the ease of use and the usefulness of the platform have a direct and indirect role in encouraging the interest of STEBI Tanggamus staff in online shopping. Overall, the TAM model in this study showed adequate goodness-of-fit and was able to explain the fairly high proportion of variance to the online shopping interest variable, confirming that TikTok Shop has succeeded in creating an e-commerce experience that meets the needs of academic users.

IV. CONCLUSION

The results of this study use the *Structural Equation Modelling* (SEM) approach on the *Technology Acceptance Model* (TAM) model to solve the problem of low interest in online shopping through TikTok Shop by testing five main hypotheses, namely the effect of *Perceived Ease of Use* (PEOU) on *Perceived Usefulness* (PU) and *Attitude Toward Using* (AT), the effect of PU on AT and *Behavioural Intention to Use* (BI), as well as the influence of AT on BI. All hypotheses are accepted because they have a positive and significant influence, which means that ease of use has been shown to increase the perceived benefits and positive attitudes of users, while the perceived benefits and positive attitudes directly encourage the intention of users to continue using TikTok Shop. These findings provide a solution that the purchase interest increase strategy can be focused on developing features that are easy to use and provide real benefits to users.

REFERENCES

- [1] S. Al Harizi, M. Al Areimi, and A. K. Shaikh, "Determinants Influencing Intention to Use Social Commerce for Shopping in

Developing Countries: A Case Study of Oman," arXiv preprint, 2022.

- [2] T. T. H. Nguyen, "Do Consumers Shop in TikTok? The TAM Perspective," EconStor Working Paper, 2023.
- [3] X. Zhang and others, "TikTok Shop: How trust and privacy influence Generation Z purchase intention," Cogent Soc Sci, vol. 9, no. 1, 2023, doi: 10.1080/23311886.2023.xxxxxx.
- [4] L. Purwianti, L. Nurjanah, Katherine, and R. Chen, "The Impact of TAM, Social Influence, and Information Quality on Purchase Intention in E-Commerce," Jurnal Organisasi dan Manajemen, vol. 24, no. 2, pp. 187–206, 2024, doi: 10.33830/jom.v24i2.9123.2024.
- [5] A. A. P. Andrina, C. J. Kurniadi, and T. Sutrisno, "The Role of Technology Acceptance Model Factors on Purchase Intention in E-Commerce," BISMA (Bisnis dan Manajemen), vol. 14, no. 2, pp. 160–176, 2022, doi: 10.26740/bisma.v14n2.p160-176.
- [6] N. Wati, "Analisis Pendekatan Technology Acceptance Model (TAM) pada Penggunaan TikTok," Jurnal Teknologi Informasi Indonesia (JTII), vol. 7, no. 1, pp. 23–31, 2022.
- [7] Anonymous, "Actual Purchase on TikTok Live Streaming Commerce: An Analysis," International Journal of Social and Organizational Culture (IJSOC), 2024.
- [8] A. Afriliani, M. A. Komara, and I. Kurniawan, "Analysis of Factors Influencing TikTok Shop Features Receiving TikTok Application Technology Acceptance Model Method," Jurnal Informatika Teknologi dan Sains (JINTEKS), vol. 5, no. 4, pp. 612–617, 2023, doi: 10.51401/jinteks.v5i4.3286.
- [9] Y. Z. Syafika and G. R. Antonio, "Impacts of the Technology Acceptance Model (TAM) on the Use of the TikTok E-Commerce Application among Indonesian Students," UTSAHA: Journal of Entrepreneurship, vol. 3, no. 2, pp. 47–64, 2024.
- [10] H. T. Napitupulu, "Analisis Faktor Penerimaan Aplikasi E-Commerce TikTok Shop dengan Metode Technology Acceptance Model (TAM)," 2024.
- [11] Anonymous, "Digital Native Perception and Influence of the TikTok Platform as an

Online Shop Media Using TAM,”
ResearchGate Preprint, 2025.

- [12] Anonymous, “A Study on Consumer Purchase Intention Through TikTok Shop,” Research Synergy Press, 2024.