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Analysis of user experience with TikTok Shop features among Generation Z in Balikpapan

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Abstract

This study was conducted to determine the usability level of TikTok Shop features among Generation Z in Balikpapan. The main focus of this study was how easy these features were to use for the user experience when shopping on the TikTok Shop application. The method used was a quantitative approach using the System Usability Scale (SUS) instrument. Data was collected by distributing questionnaires to 27 respondents who were Generation Z aged 13 to 28 years old residing in Balikpapan. The SUS questionnaire consisted of 10 questions using a Likert scale of 1 to 5, which were then processed to obtain a usability score. The results of data processing showed that the total SUS score obtained was 2,230 with an average value of 82.59. This value indicates that the TikTok Shop feature has a high level of usability. In general, respondents felt that the interface was easy to understand, supported shopping activities, and was in line with Generation Z's social media usage habits. Based on these results, the researcher concluded that the TikTok Shop feature was well-designed and provided a positive experience for Generation Z in Balikpapan.

Keywords: *Generasi Z; Live Shopping; TikTok Shop; Usability; User Experience*

1. Introduction

Generation Z, commonly referred to as the iGeneration, net generation, or internet generation, is a group of people who are considered to be the most tech-savvy compared to previous generations. This is because they have been accustomed to interacting with sophisticated technological devices since childhood, enabling them to perform various activities simultaneously [1]. The presence of social media and various events within it cannot be separated from Generation Z, who are a generation born in the digital era and often use various multimedia tools and technology in their daily lives [2].

In today's digital age, technology provides great convenience for all groups, with many businesses using digital marketing and many social media applications starting to develop shopping features on their platforms. Engaging video content and collaborations with influencers are crucial for attracting consumer interest. Through innovative video content, one of the most popular social media platforms is TikTok Shop. TikTok Shop launched in Indonesia on April 17, 2021, after TikTok obtained official permission from the government to operate in the social media and e-commerce sectors [3].

According to [4] in a study examining consumer social formation on online shopping platforms, it was found that there are a number of factors that encourage consumers to use the TikTok Shop application. One reason is the expectation of performance, as TikTok Shop offers benefits to its users by making it easier for them to find the products they want. Consumer interest in purchasing can be influenced by various elements, such as quality, goods, brand perception rates, and application or service standards [5].

For Generation Z in Balikpapan, the emergence of TikTok Shop is quite beneficial for both sellers and consumers because buyers can shop anywhere, such as at the office or at home, whenever they want. This TikTok Shop feature not only makes it easier for buyers, but also supports sellers with the ability to broadcast live, allowing merchants to record and display their videos in real-time, as well as enabling communication between broadcasters and audiences [6].

In this study, user experience measurements were conducted regarding the appearance of TikTok Shop features by applying the System Usability Scale (SUS) approach. The System Usability Scale (SUS) is a user testing method that provides a reliable “quick and dirty” measurement tool. This method was introduced by [7], and can be used to test various types of products, including websites and applications.

2. Literature Review

2.1. User Experience

User experience (UX) assesses the level of satisfaction and comfort individuals have with products, systems, and services. UX describes the experience felt by users when using a product, as well as how users interact with the product [8]. Usability is closely related to user experience because it can affect the user experience. In the world of digital systems, the quality of user experience is largely determined by how good the usability is, which includes ease, effectiveness, and comfort when users operate a system.

The understanding of user experience can vary in terms and context. In general, user experience aims to improve the relationship between users and systems [9]. For UX to be considered good, designers must consider user needs when designing a system. The features in the system must be tailored to user requests..

2.2. Generation Z

Generation Z is the group born between 1997 and 2012 and is currently the largest generation in Indonesia, indicating that Gen Z ranks highest in the total population. Technological developments and the rapid flow of information via the internet have influenced the lives of Generation Z. They cannot be considered independent of technology and the internet, and as such, they have a style of communication and use of social media that is typically more relaxed, individualistic, and very straightforward in their lives [10].

Given how Generation Z uses technology and the internet in their lives, they spend a lot of time on digital platforms. Generation Z's involvement in digital platforms encourages creativity and innovation. According to [11], Generation Z has a higher tendency to innovate and create solutions in the face of challenges, as well as being more accepting of change and new technologies. All these characteristics make Generation Z a group with the potential to become leaders of change in the future.

2.3. TikTok Shop

Social media has grown to become an important part of people's lives and is even considered a basic necessity. Rapid technological developments and the emergence of the internet have led to the emergence of various social media applications that open up opportunities in the business field [12]. One application that takes advantage of this opportunity is TikTok, a music video and social networking platform from China that was launched in September 2016.

The TikTok application allows its users to create short music videos. This application also serves as a means of entertainment by creating and sharing videos with other TikTok users, because TikTok is a platform for creating and sharing video content among fellow users [13]. In 2021, TikTok launched a new feature called TikTok Shop, which aims to provide opportunities for businesses to market their products through creativity that can attract consumers' attention. TikTok Shop offers a variety of daily necessities such as fashion, food, skincare, makeup, and others, allowing people to shop at TikTok Shop without having to leave their homes.

The TikTok Shop feature was developed as a means of buying and selling directly within the app. Users can complete the entire purchase process, from searching for products and interacting with sellers to completing payments, without having to visit other websites or install additional apps. With this integrated system, the service differs from sales features on other platforms, which usually still require access to separate media [14].

2.4. Usability

An important principle used to assess the success of a system in achieving its objectives while taking user needs into account is usability. In general, usability refers to the extent to which a software application can support its users in completing a task. Previous research has evaluated the Usability of TikTok Shop using a number of methods, such as the System Usability Scale (SUS), which shows that this platform has a satisfactory level of user satisfaction and is acceptable to its users [15].

Usability covers various aspects related to ease and comfort for users. In this study, usability is used as a basis for assessing the user experience of the appearance and functionality of TikTok Shop features.

2.5. System Usability Scale

The System Usability Scale (SUS) method is a questionnaire that can be used to measure the usability of computer systems from the subjective perspective of users [16]. John Brooke created the SUS in 1986, which consists of a questionnaire with ten questions. The SUS consists of ten items that are rated on a scale of 1-5. SUS scores are interpreted based on percentile ranks and letter grades from A to F, as stated by [17], where A is the highest score and F is the lowest. The SUS method, which can be viewed from the subjective perspective of users, has the following advantages:

1. SUS is easy to use because the results are presented on a scale of 0-100.
2. SUS is accessible free of charge, without additional costs.
3. SUS is very simple to use and does not require complex calculations.
4. SUS is typically used with small samples but demonsrates good validity and consistency.

2.6. Previous Research

The study conducted by [18] entitled "Testing the Usability of the PeduliLindungi Application using the System Usability Scale (SUS) Method". This study aims to measure the usability of the PeduliLindungi application as an official government application in supporting the tracking and control of the spread of Covid-19. The method used was the System Usability Scale (SUS) through a questionnaire containing 10 statements. The initial testing involved 35 respondents, and the SUS score obtained was 65, which was in the Grade D category, indicating that the application's usability was not yet optimal. After making improvements and retesting with 4 expert respondents, the SUS score increased to 81 or Grade A, indicating a significant improvement in usability.

Research conducted by [19] entitled "Usability Testing Analysis Using the System Usability Scale (SUS) Method on Shopee Application User Satisfaction". This study aims to determine the level of usability and user satisfaction with the Shopee application. The SUS method was used by involving 10 respondents using a five-point Likert scale. The results showed an average SUS score of 76, which falls into the Acceptable category with a Grade C and an adjective rating of Good. This indicates that users tend to be satisfied with the Shopee application, although there are some aspects that need improvement.

Research conducted by [20] entitled "Application of the System Usability Scale (SUS) in Measuring the Usability of Study Program Websites at STMIK Royal". This study aims to measure the usability level of the Computer Systems and Information Systems Study Program websites. Respondents consisted of students, lecturers, and the general public. The test results showed a SUS score of 69.63 for the Computer Systems website and 70.19 for the Information Systems website, which is classified as Acceptable, but still needs improvement and development to be better.

3. Reseacrh Methodology

3.1. Data Collection

This study aims to measure user experience with the TikTok Shop feature using quantitative methods. Quantitative research is a research method that collects and analyzes information based on numbers and numeric measurements. This method aims to present, describe, and test the interaction between variables using statistical analysis [21]. A questionnaire was distributed via Google Form to respondents aged 13–28 years old residing in Balikpapan. This study obtained data from 27 respondents in the form of a Likert scale to calculate responses to questions provided by the author to the correspondents.

3.2. Questionnaire Design

The questionnaire developed for this study contains 10 questions covering user-friendliness, user satisfaction, and clarity of the application for users, to be distributed to respondents for use as a reference for this study. The questions contain a Likert scale from 1 to 5, ranging from strongly agree to strongly disagree. The Likert scale is a tool used to assess the views, attitudes, or opinions of individuals or groups about an event or social phenomenon [22].

3.3. Data Processing

In data management, the data collected from the questionnaires distributed and completed by respondents is processed. The data collected during the data collection stage will be exported to a spreadsheet application. Each answer to the questions in the survey using the SUS instrument goes through the following stages: Each positive item (found on the odd-numbered items in the instrument above) is calculated by taking the respondent's answer scale (scale 1-5) and subtracting 1. Meanwhile, negative items (found on even numbers in the instrument above) are calculated by subtracting 5 from the respondent's answer scale (scale 1-5). After that, all scores from each instrument are added up. To obtain more accurate results, the SUS value is then multiplied by 2.5. By multiplying the SUS value by 2.5, the interpretation of the results becomes easier [23].

4. Results and Testing

Based on the results of distributing 10 questionnaires to 27 respondents who use the TikTok Shop Application to find out the results of user experience, it can be seen in table 1:

Table 1: Respondent Assessment Results

Responden	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	Q9	Q10
R1	5	1	5	1	5	1	5	1	5	1
R2	5	1	4	1	5	2	5	2	5	1
R3	4	2	4	2	5	2	5	2	4	1
R4	4	3	3	3	3	2	3	3	3	3
R5	4	1	5	1	5	1	5	1	5	1
R6	5	1	5	1	5	1	5	1	5	1
R7	5	1	5	1	5	1	4	1	5	1
R8	4	1	3	1	5	1	5	3	4	2
R9	5	1	5	1	5	1	5	1	5	1
R10	4	2	5	2	4	1	4	1	4	2
R11	4	2	3	2	5	1	5	3	5	1
R12	5	2	5	2	5	2	5	1	4	1
R13	5	2	5	2	5	1	5	1	5	1

R14	5	1	5	1	5	1	5	1	5	1
R15	4	2	5	2	5	1	4	1	5	1
R16	5	1	4	1	5	1	5	2	5	1
R17	5	1	5	1	5	1	5	1	5	1
R18	4	2	3	2	5	2	4	3	5	2
R19	4	5	2	5	2	5	1	4	1	5
R20	5	3	3	3	4	3	4	3	4	2
R21	4	1	5	1	4	2	4	1	4	2
R22	5	1	5	1	5	1	5	1	5	1
R23	5	1	5	1	5	1	5	1	5	1
R24	4	1	4	1	4	1	5	2	5	1
R25	4	1	4	1	5	1	5	2	5	2
R26	5	1	4	1	4	1	5	2	5	1
R27	4	2	4	2	3	2	3	2	3	3

After the respondent data is collected, the next step is to calculate the System Usability Scale (SUS), which can be seen in the table below:

Table 2: SUS Calculation Results

Responden	**Jumlah**	**Nilai (Jumlah x 2,5)**
R1	40	100
R2	35	87,5
R3	32	80
R4	22	55
R5	37	92,5
R6	38	95
R7	37	92,5
R8	31	77,5
R9	38	95
R10	32	80
R11	32	80
R12	35	87,5
R13	37	92,5
R14	38	95
R15	35	87,5
R16	36	90
R17	38	95
R18	29	72,5
R19	8	20
R20	26	65
R21	32	80
R22	38	95
R23	38	95
R24	34	85
R25	34	85
R26	35	87,5
R27	25	62,5
Total		2230

After calculating the survey data, the app's rating was calculated. This rating was then used to assess user satisfaction with the TikTok Shop app using the formula

$$Rata - Rata = \frac{2230}{27} = 82{,}59$$

Based on the assessment results from 27 respondents, the total SUS score was 2,230, with an average score of 82.59. Based on the final results, a grade was determined based on the assessment by looking at the range of SUS scores, which consist of Acceptability Ranges, Grade Scale, and Adjective Rating. For further explanation, see Figure 1 below.

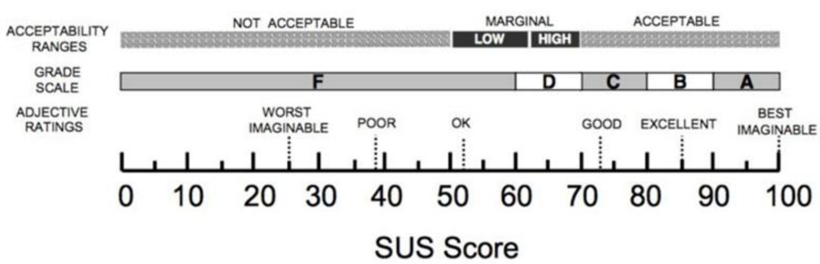

Fig.1: Determination pf Assessment Results using Acceptability, Grade Scale, and Adjective Rating [24]

From Figure 1 above, the research results for the System Usability Scale (SUS) are as follows:

1. The Acceptability Range of users towards the TikTok Shop application is classified as Acceptable (High).
2. The Grade Scale Range of users towards this application is classified as category A.
3. The Adjective Ratings Range of users towards this application is classified as Excellent.

5. Conclusion

Based on user experience with the TikTok Shop feature among Generation Z in Balikpapan using the System Usability Scale (SUS), it can be concluded that the TikTok Shop feature demonstrates excellent usability, as evidenced by an average SUS score of 82.59, which falls into the Acceptable (High) category with a Grade A and the adjective "Excellent."

These results indicate that the TikTok Shop interface is considered easy to understand, comfortable to use, and capable of providing a positive experience for its users. The integration of shopping features with video content and live streaming is also considered effective in supporting the shopping activities of Generation Z as active users in the digital world. Thus, the design of the TikTok Shop feature has met the criteria of ease of use and comfort for users.

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