

CHAPTER I

INTRODUCTION

1.1 Background

Rapid advancements in information technology have driven digital transformation across various sectors, including public transportation. One manifestation of this transformation is the emergence of mobile applications that enable the public to access transportation services more efficiently and conveniently. In East Java, the government has introduced the Trans Jatim public transportation service, supported by a digital application that provides users with information on routes, schedules, and other services [1].

The Trans Jatim application is expected to boost public interest in using public transportation while simultaneously delivering a positive user experience. However, in terms of implementation, an application's quality is measured not only by its available functions but also by its usability and the comfort experienced by users when interacting with the system [2].

Usability is a key factor in determining the success of an application. An application with a high level of usability enables users to easily understand and operate it, as well as achieve their usage goals effectively and efficiently. Conversely, an application with poor usability can lead to confusion, usage errors, and even a decline in user interest [3].

One commonly used method for measuring an application's usability is the System Usability Scale (SUS). This method is a simple and rapid measurement instrument that has been widely employed in various studies to evaluate application-based systems. The System Usability Scale (SUS) yields a score that can be used to assess the level of user acceptance of a system [4].

Based on the foregoing, research is required to analyze the usability level of the Trans Jatim application using the System Usability Scale (SUS) method. The results of this study are expected to provide insight into the application's quality from the user's perspective and serve as a basis for evaluation regarding future application development.

1.2 Problem Statement

Advancements in information technology within the transportation sector have spurred the creation of various public service applications designed to enhance user convenience, efficiency, and comfort when accessing transportation information and services. One such implementation of digitalization is the Trans Jatim application, which serves as a platform for transportation information and services for the people of East Java. The application offers features such as route details, departure schedules, bus stop locations, and fare information, all intended to facilitate more effective mobility for public transport users. Several problem statements arise from the points mentioned above.

1. What is the usability level of the Trans Jatim application based on the System Usability Scale (SUS) method?
2. How do users perceive the application's ease of use, feature efficiency, and the comfort of the available interface?
3. Has the application met user needs in supporting public transportation services in East Java?

1.3 Research Objectives

Based on the problem formulation above, the objectives of this study are to:

1. Determine and analyze the application's ease of use based on user experience and direct user assessment.
2. Identify various usability aspects of the Trans Jatim application, such as the ease of understanding the interface, ease of menu navigation, speed of information retrieval, and the effectiveness of available features in meeting user needs.
3. Measure the level of user acceptance of the Trans Jatim application by calculating scores using the System Usability Scale (SUS) method.

4. Provide information and recommendations to application developers regarding aspects that need improvement to optimize the application's usability.

1.4 Benefits of the Research

Research on the usability analysis of the Trans Jatim application using the System Usability Scale (SUS) method is expected to provide both theoretical and practical benefits to various parties involved in the development and use of digital transportation applications.

1. Theoretical Benefits

Theoretically, this study is expected to expand knowledge and provide scientific references in the field of information systems, specifically regarding the usability evaluation of mobile applications using the System Usability Scale (SUS) method. It can also serve as a basis for study and a reference for future researchers investigating user experience and usability in public service applications or other digital transportation apps. Furthermore, the findings are expected to reinforce the understanding of the importance of usability in enhancing the quality of a system or application, ensuring it is accepted and utilized optimally by the public.

2. Practical Benefits

A. For App Developers

This study is expected to provide information and insights to the developers of the Trans Jatim application regarding its usability, based on direct user assessments. The findings can serve as a basis for evaluating shortcomings in the interface, navigation, and features, enabling developers to improve and refine the system to make the application more effective, efficient, and user-friendly.

B. For Users

This research is expected to benefit Trans Jatim application users by enhancing the quality of the application's services. Through usability evaluation, the application aims to provide a user experience that is more comfortable, intuitive, and aligned with users' needs for accessing information and public transportation services.

C. For Institutions or Government Bodies

This research is expected to serve as a reference for transport service providers and relevant agencies in enhancing the quality of digital-based public services. The findings can support the development of a more modern, effective, and user-oriented transport system, thereby increasing public interest in using public transportation.

D. For Future Researchers

This research is expected to serve as a reference and source of information for other researchers wishing to conduct similar studies, particularly in the field of application usability evaluation using the System Usability Scale (SUS) method. Furthermore, this research can provide a foundation for developing more in-depth evaluation methods regarding user experience and information system quality.

1.5 Scope and Limitations

To ensure this research remains focused and aligned with its established objectives, the author has defined the following scope and limitations:

1. This research focuses exclusively on measuring the usability of the Trans Jatim mobile application; it does not cover the backend system, website, or other technological infrastructure supporting the Trans Jatim service.
2. The System Usability Scale (SUS) method is employed; consequently, usability aspects beyond the 10 standard SUS statements are not the focus of the discussion.
3. Respondents are limited to Trans Jatim application users who have used the app at least once—specifically, a minimum of three usage instances—within the last three months.
4. Data collection was conducted via an online questionnaire with a sample size of 30 respondents; therefore, the findings cannot be generalized to the entire national user base of Trans Jatim.
5. This research measures usability solely from the end-user perspective and does not include assessments from the perspective of developers or system administrators.

6. The version of the Trans Jatim application analyzed was version 1.3.1, used throughout the research period; consequently, it does not account for feature changes in earlier or later versions.
7. This study does not address security aspects, server performance, or network speed in its assessment of the application's usability.
8. The interpretation of SUS scores in this study utilizes the grade scale, adjective rating, and acceptability range generally established in SUS literature, without modifications to the original instrument.