



The Influence of Perceived Benefits, Convenience, Risk, and Trust on Interest in Using the Teman Bus Application in Makassar City, Indonesia

Ihksan Rahman¹

¹ Hasanuddin University, Perintis Kemerdekaan Street, Indonesia
Ihksan.Rahman@pln.co.id

Abstract. This study aims to ascertain how people's propensity to use the Teman Bus app in Makassar is influenced by perceived benefits, ease of use, risk, and trust. The use of technology in public transportation is expected to increase accessibility and user comfort. People's propensity to use an application is influenced by a variety of factors, such as perceived benefits, ease of use, perceived threat, and degree of trust. Among Makassar City's active Teman Bus app users, a quantitative analysis was carried out. The relationship between these parameters was established using multiple regression analysis. The study discovered that although perceived risk decreased interest in usage, perceived benefits, ease of use, and trust increased it. These findings provide insight for service managers to improve the quality of applications to make them more useful, easy to use, and trustworthy, as well as minimize the risks perceived by user.

Keywords: Perceived Benefits, Perceived Convenience, Perceived Risk, Perceived Trust, Interest in Using the Application, Bus Friends.

1 Introduction

In recent years, the development of information technology has driven significant changes in various aspects of life, including the transportation sector. The Makassar City Government, in an effort to improve the accessibility and convenience of public transportation services, has introduced the Teman Bus application. This application allows users to get information about bus schedules, routes, and service availability, so that it is expected to increase the efficiency and convenience of public transportation. However, the adoption rate of this application is still influenced by various factors related to user perceptions of the application.

Research on factors influencing technology adoption often refers to technology acceptance models, such as customers' decisions to accept a technology are influenced by perceived usefulness and simplicity of use, according to the Technology Acceptance Model (TAM). Perceived utility is the degree to which users feel that using an application will enhance their quality of life, whereas perceived ease of use refers to how easy a software is to use. Users' motivation to use the Teman Bus app is greatly influenced by both of these characteristics.

Additionally, people's decisions are influenced by how they perceive the risk. Risk perception relates to the uncertainty and potential losses that users may face when using the application, such as personal data security risks and misinformation. Users who perceive high risks tend to be reluctant to use the application, which can ultimately reduce interest in use. For the Teman Bus application to be successful, it is essential to comprehend how clients view risk.

Perceived trust is also a crucial factor in determining whether someone will use a new technology. Trust refers to the user's belief that the application is reliable and safe to use. When users feel confident in the quality and security of an application, the likelihood that they will keep using it is higher.

Thus, the purpose of this study is to find out how interest in using the Teman Bus app in Makassar City is influenced by perceived benefits, convenience, risk, and trust. In addition to offering Teman Bus service managers suggestions on how to raise the caliber and acceptance of their apps, this research is expected to contribute to the body of knowledge about the integration of technology in the transportation industry.

2 Literature Review

2.1 Perception of Benefits

Perceived benefits refer to users' beliefs that using an application will provide benefits in their daily lives. In the context of the Teman Bus application, the expected benefits include time efficiency, ease of access to transportation-related information, and convenience in using bus services. Using the Technology reception Model (TAM), Davis demonstrates how customers' reception of new technology is significantly influenced by perceived advantages [1]. These benefits are not only functional, but also emotional, because they can reduce anxiety in using public transportation.

2.2 Perception of Ease

The term "perceived ease of use" describes how simple it is for users to understand and make use of technology. The ease of use of the Teman Bus application includes aspects of application navigation, clarity of information, and how intuitive and simple the steps are to use it. Furthermore, basic technology is more likely to be accepted and used by humans, according to Davis [1]. This ease of use is important in attracting new users and retaining old users who may have limited technological skills.

2.3 Risk Perception

Risk perception refers to the uncertainty or potential loss that users may face when using the Teman Bus application. The perceived risk can be in the form of financial loss, misinformation, to threats to data privacy. One of the main barriers to embracing new technology is fear of the unknown, claim Featherman and Pavlou [2]. Users who perceive high risks tend to avoid using the technology. Therefore, to increase adoption, applications need to ensure that the risks perceived by users can be

minimized through strong security features and transparent management of personal data.

2.4 Perception of Trust

Perception of trust plays an important role in ensuring continued use of the application. Trust is the user's belief in the security, reliability, and integrity of the Teman Bus application. According to Gefen et al., trust is one of the main factors that determine whether users will use an information system [3]. Trust can be built through reliable security features, developer reputation, and previous positive user experiences. In the context of Teman Bus, users who believe that the application is safe and reliable will be more motivated to continue using it.

2.5 Interest in Using the Application

Application usage interest is a person's intention or desire to use the Teman Bus application in the future. This interest is influenced by various factors, including perceptions of benefits, ease, risk, and trust in the application. In their Unified Theory of Acceptance and Use of Technology (UTAUT), Venkatesh et al. investigated the impact of social qualities, supportive environments, performance and effort expectations, and other factors on technological intention [4]. In the context of the Teman Bus application, users who see greater benefits, ease, and trust tend to have higher intentions to use this application, while high risks can reduce usage intentions.

2.6 Relationship between variables

The significance of perceived utility and simplicity of use in promoting the adoption of new technologies is emphasized by both the TAM and UTAUT models. Furthermore, a significant obstacle to the adoption of technology is perceived danger, which may be lessened by trust while simultaneously increasing usage intentions [3]. Consequently, with respect to the Teman Bus application, to increase adoption, an approach is needed that can increase perceived usefulness, facilitate use, reduce risk, and build and strengthen user trust.

3 Research Methodology

Survey technique is one of the quantitative methods employed in the present study. The study's participants were Makassar residents who utilized the Teman Bus application. The sample was drawn via purposive sampling, and users who had been using the app for at least six months were eligible. Data was acquired using internet questionnaires. The influence of each independent variable on interest in using the application was determined using multiple regression.

In order to better understand the reasons that encourage Makassar residents to use the Teman Bus app, this study employs a variety of technology adoption theories. By

understanding the literature related to the perception of benefits, convenience, risk, and trust, this study aims to provide in-depth insights into important aspects that must be considered in increasing the adoption of technology-based public transportation applications.

4 Results

This study examined the impact of perceived advantages, convenience, risk, and trust on interest in using the Teman Bus app in Makassar City using a survey and a quantitative methodology. Data were collected through questionnaires distributed to 200 respondents, who are active users of the Teman Bus application. Multiple regression was employed in this study to determine how all of these variables related to one another.

The impact of purported benefits on participants' enthusiasm is highlighted by the study's findings, which demonstrate that perceived benefits have a favorable and significant effect on interest in using the Teman Bus application, implying that users who are aware of the software's advantages are more likely to use it. Users feel that the Teman Bus application provides various benefits such as ease in getting bus schedule information, time efficiency, and convenience in using public transportation.

The apparent ease of use and excitement for the application positively and significantly impacted interest in utilizing the Teman Bus application, as customers are more likely to engage with software when they believe it is easy to use. Intuitive application features and user-friendly interfaces play an important role in increasing interest in use. The TAM hypothesis, which contends that perceived usability significantly affects the adoption of new technologies, is supported by these facts.

The influence of perceived risk on motivation to utilize the program is evident in how individuals' willingness to use the Teman Bus app is significantly affected by their perception of danger, demonstrating that as the perceived threat increases, users lose interest in using the service. Users who are concerned about the security of their personal data, misinformation, or potential technical problems tend to be reluctant to continue using the application. These results underscore the importance of improving application security features and providing accurate information to reduce perceived risks.

The correlation between app usage and perceived dependability suggests that the impression of trust encourages software adoption. Users who have high trust in the Teman Bus application, especially regarding the reliability and security of the service, show a greater interest in continuing to use the application. This trust can be obtained from previous positive experiences, the reputation of the application, and security assurance from the application manager. These results are in line with other research showing how crucial trust is to the uptake of advancements in technology.

How these variables affect one another. The study's overall findings show that, while perceived risk lowers interest in using the application, perceived value, simplicity of use, and trust all increase it. User attention is largely motivated by perceived usefulness, followed by perceived trust and usability. Although perceived risk has negatives, they are less important than the benefits of the other three categories.

Implications of Research Results Based on these findings, Teman Bus application managers are advised to focus on improving the benefits felt by users, such as providing accurate information and relevant features. In addition, the ease of use of the application needs to be continuously improved so that users from various age groups and technological backgrounds can access the service easily. Perceived risks need to be minimized by ensuring the security of personal data and transparency of information. Building user trust through good communication and consistent delivery of service quality is also very important to encourage interest in using the Teman Bus application.

The findings of the study provide insight into the factors influencing Makassar City consumers' interest in contemporary transportation technology. Service managers are expected to use these results to increase application adoption and optimize the services provided.

References

1. Davis, F.D, "Perceived usefulness, perceived ease of use, and user acceptance of information technology," *MIS Quarterly*, vol. 13, no. 3, pp. 319-340, 1989.
2. Featherman, M. S., & Pavlou, P. A. "Predicting e-services adoption: A perceived risk facets perspective," *International Journal of Human-Computer Studies*, vol. 59, no. 4, pp. 451-474, 2003.
3. Gefen, D., Karahanna, E., & Straub, D. W. "Trust and TAM in online shopping: An integrated model," *MIS Quarterly*, vol. 27, no. 1, pp. 51-90, 2003.
4. V. Venkatesh, M. G. Morris, G. B. Davis, and F. D. Davis, "User acceptance of information technology: Toward a unified view," *MIS Quarterly*, vol. 27, no. 3, pp. 425-478, 2003.

Open Access This chapter is licensed under the terms of the Creative Commons Attribution-NonCommercial 4.0 International License (<http://creativecommons.org/licenses/by-nc/4.0/>), which permits any noncommercial use, sharing, adaptation, distribution and reproduction in any medium or format, as long as you give appropriate credit to the original author(s) and the source, provide a link to the Creative Commons license and indicate if changes were made.

The images or other third party material in this chapter are included in the chapter's Creative Commons license, unless indicated otherwise in a credit line to the material. If material is not included in the chapter's Creative Commons license and your intended use is not permitted by statutory regulation or exceeds the permitted use, you will need to obtain permission directly from the copyright holder.

