



Optimization of the GOBIS Surabaya Bus System in Providing Public Transportation in the City of Surabaya

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ABSTRACT

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This research examines the optimisation of the Surabaya Bus Gobis application, which was launched to support Suroboyo Bus, a public transport initiative by the Mayor of Surabaya, Mrs Tri Rismaharini. This study uses a qualitative method with interviews as a data collection technique, aiming to evaluate the effectiveness of the GOBIS system, identify inhibiting and supporting factors, and evaluate efforts to improve the quality of the application's services. The results show that although the Gobis application has been quite optimal in information services, improvements are still needed in certain aspects such as map graphics, appearance, and application features to improve functionality and services. Optimisation is expected to be carried out by UPTD PTU to achieve better results in the Gobis application system and Suroboyo Bus service.

KEYWORDS:

optimisation; system; GOBIS, bus; Surabaya

INTRODUCTION

According to the Mayor of Surabaya at that time, Tri Rismaharini, the amount of traffic in Surabaya continued to increase from year to year, so that public transportation became an alternative solution that was considered suitable for reducing vehicle density. Because the ratio of private vehicles to public transportation is currently 75% and 25% (Haqie et al., 2020a). The city of Surabaya is gradually improving and updating its public transportation system in the hope of reducing traffic congestion caused by private vehicles. To realize this, it is necessary to pay attention to the provision of public transportation to encourage people to switch to public transportation. With these efforts, a new innovation emerged from the Surabaya City Government, namely the provision of a bus public transportation system, which is currently known as the Suroboyo Bus, which is a mode of transportation that reflects the new face of public transportation in the city of Surabaya (Kibthiah et al., 2023)

The integrated and environmentally friendly fast bus called the Suroboyo Bus was inaugurated directly by Mrs. Tri Rismaharini as the Mayor of Surabaya, on April 7, 2018 at the Siola building. This Suroboyo Bus is the latest innovation of the Surabaya City Government in the field of public land

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transportation. With a width of 2.4 m and a length of 12 m, this bus can accommodate up to 67 passengers and operates from 06.00 WIB to 22.00 WIB (Kibthiah et al., 2023). The purpose of the Suroboyo Bus is to overcome traffic congestion while reducing the amount of plastic waste in Surabaya, because the payment for the Suroboyo Bus ticket at that time was only with plastic waste and deposited at Purabaya station. However, after the creation of the Suroboyo Bus, not many people used it for activities such as work, school or activities that had a short time limit, because the Suroboyo Bus at that time was still not optimal as a whole. The Suroboyo Bus began operating on April 7, 2018, when it was first launched the Suroboyo Bus had three routes ready to serve the people of Surabaya City. In 2018, the initial operation of Suroboyo Bus until the end of 2018, Suroboyo Bus served 513,142 people and experienced an increase in the number of passengers in 2019 by 1,123,177 people. In 2020, there was a decrease of 823,130 people and increased again in 2021 by 926,971 people. Although passenger data experienced ups and downs in the use of Suroboyo Bus did not have a major impact on the operational system, Suroboyo Bus continued to operate as usual and the decrease in passenger data was not significant enough to affect the operation of Suroboyo Bus from year to year. In 2022, the number of Suroboyo Bus passengers reached 1,611,415 people, in December 2022 it reached the highest number of passengers, namely 176,459 people. This significant increase in passengers occurred in the middle of the year due to the increase in fuel prices, and people switched to using public

transportation such as Suroboyo Bus to minimize the use of private vehicle fuel. In 2023, the number of Suroboyo Bus passengers increased to 1,729,758 people, this shows that public enthusiasm is increasing every year and this increase in passengers is what makes the Public Transportation Management UPTD add Suroboyo Bus fleet units to the current 26 units and 2 double-decker buses with 2 corridors.

Based on the announcement on the Instagram account @SuroboyoBus on December 19, 2022, it stated that Suroboyo Bus no longer serves the Gunung Anyar-Kenpark route, this is due to the presence of Trans Semanggi Suroboyo which is managed by the Ministry of Transportation of the Republic of Indonesia with the Purabaya-Kenpark route which resulted in Suroboyo bus currently only serving 2 routes, namely Purabaya-Rajawali and Joyoboyo-Osowilangun Intermodal Terminal (Permata, 2023). Currently, the Suroboyo Bus routes are Purabaya-Rajawali, Purabaya-Tembaan (Suroboyo Bus Tumpuk), Tambak Osowilangun-Unesa Lidah. The Surabaya City Government, referring to foreign transportation systems, is trying to reduce congestion levels by implementing Suroboyo Bus, which is public transportation owned by the Surabaya City Government. The Surabaya City Transportation Agency believes that the existence of "Suroboyo Bus" can reduce the number of traffic accidents because this mode of transportation is integrated into the road traffic management system. Suroboyo bus is also equipped with 12 internal surveillance cameras and 3 integrated external cameras. The presence of these cameras is to provide a sense of security for passengers. Then the bus door is also equipped with a sensor so that if there is a passenger blocking the way, the door will not close and the bus will not move.

In addition to reducing traffic congestion in Surabaya, Suroboyo Bus was also launched with the aim of reducing waste in Surabaya, where passengers do not need to pay with money but exchange used plastic bottles for mineral water in the form of 5 used 600 ml bottles or 10 used 250 ml mineral water glasses and or 3 used 1.5 liter mineral water bottles. Meanwhile, for passengers who do not want to bring trash, if they want to take the bus, they can exchange it at the waste bank, trash bins at the terminal and the Purabaya terminal depot in collaboration with DKRTH. The trash can be exchanged for a waste deposit card to be exchanged for a ticket

Not long after the creation of the Suroboyo Bus, the Surabaya City Government in collaboration with the Surabaya City Transportation Agency published the "GOBIS Surabaya Bus" application which was released on May 7, 2018 on Playstore. The Gobis Surabaya Bus application is used to facilitate users in accessing the mobility that has been provided without having to guess which transportation will arrive, not only to check bus tracking, but this application can also be accessed if passengers want to use points obtained after exchanging bottles at the terminals listed in the

application. This Gobis application also provides information on other city public transportation, not only transportation information but also information about historical places and culinary centers in Surabaya are also listed in the application. From the statement above regarding problems related to public transportation in the city of Surabaya, there are several interesting problems to study and the author is interested in reviewing more deeply the optimization of the Gobis Surabaya Bus system to facilitate public transportation information in the city of Surabaya. System optimization itself is a process to increase the efficiency of system performance in an application. This is very necessary in an application to develop the application to be superior to before and add the latest features to keep up with technological developments and appearance, so that users are more interested in using this application. Therefore, system optimization plays an important role in achieving an optimal system.

RESEARCH METHOD

The Qualitative research methods are research methods used to research natural object conditions, where researchers are key instruments, data collection techniques are carried out in combination, data analysis is inductive, and qualitative research results emphasize meaning rather than generalization (Sugiyono, 2023). This study uses a descriptive data analysis method which aims to describe, explain and explain in detail and systematically about the actual situation, which will then be drawn a conclusion, and finally can answer the problems raised in the formulation of the problem. Data analysis is very important because by analyzing data, data can be used to solve research problems and achieve the final objectives of the research. Activities in qualitative data analysis are carried out interactively and continue continuously until complete, so that they have valid data regarding the research. Activities in this data analysis are as follows: 1. Data Collection; 2. Data Reduction; 3. Data Presentation; 4. Drawing Conclusions and Verification (Saher et al., 2022).

RESULTS AND DISCUSSION

Optimization of the GOBIS Surabaya Bus System in Providing Public Transportation in the City of Surabaya

Optimization comes from the word "optimal" which means the best, the highest, while optimization refers to the process of increasing or increasing the achievement of an expected goal according to the criteria that have been set (Hidayat & Irvanda, 2022). In optimizing the system in the GOBIS Surabaya Bus application, the UPTD PTU of Surabaya City as the person in charge should consider criticism and suggestions from the public as a form of effort to optimize the application according to the needs of the community.

According to the Ministry of Education and Culture, optimization comes from the word "optimal" which means the best, the highest, while optimization refers to the process of increasing the achievement of an expected goal according to the criteria that have been set (Hidayat & Irvanda, 2022). So it can be said that system optimization aims to achieve a goal that is expected in the system and in accordance with the optimization criteria, so that the system in the GOBIS Surabaya Bus application can be said to be optimal.

The system means a collection of components that have elements of interconnection between one another (Satri & Seabtian, 2019). System optimization is basically a way for the system in the application to achieve a level of optimization in the eyes of users, and can facilitate and lighten the officers and users in accessing the application. The Surabaya City Government formed a Technical Implementation Organization for the Public Transportation Management Service at the Surabaya City Transportation Service with the aim that this organization can focus more on developing, managing, and maintaining services, infrastructure in the Suroboyo bus and in the Gobis Surabaya Bus application. The formation of the UPTD PTU in the context of one door to manage the Suroboyo Bus, where this shows that the City of Surabaya wants to provide facilities and comfort for the residents of Surabaya by providing integrated and safe public transportation for the people of Surabaya. Thus, in terms of the provision of public transportation in the City of Surabaya itself, it is quite adequate, coupled with the existence of the Suroboyo bus which complements the public transportation in the City of Surabaya, not only the provision of public transportation in the form of the Suroboyo Bus but also the availability of the Gobis Surabaya bus application managed by the UPTD PTU. The Gobis Surabaya Bus application is not only related to Suroboyo Bus, but other public transportation also has its own features on the Gobis Surabaya Bus application such as city buses, microlets, Wira-Wiri Surabaya, and Trans Jatim are also available on the Gobis Surabaya Bus application. In addition to features regarding transportation in the city of Surabaya, the Gobis Surabaya Bus application also provides a bottle exchange feature with points for payment methods other than qris, as well as information features regarding historical tourist attractions or shopping centers and information related to MSMEs in the city of Surabaya, this feature is a collaboration between the UPTD for Public Transportation Management and the Surabaya City Tourism Office.

1. Service Standards

Service standards are standardized measurements in the provision of public services, as guidelines that must be followed and implemented by service providers, and as guidelines for service recipients when submitting applications, and controlling the community or service recipients on the performance of service providers (Syafingi,

2017). In every agency there are always service standards, especially those related to the public, this is done to provide comfort to users of public services. Suroboyo Bus as an integrated public transportation is required to apply public service standards when providing services on the bus, this will increase public assessment of the services of Suroboyo Bus fleet officers. Service standards are not only in the form of service, but information is also a service in the operation of the Gobis Surabaya Bus application which is interrelated with the operation of the Suroboyo Bus fleet. This shows that the information service in the application is related to the public services provided by Suroboyo Bus officers which makes optimization of the Gobis system possible.

2. Providing Access

In today's rapidly developing digital era, the Technical Implementation Unit of the Public Transportation Management Service of the Surabaya City Transportation Service has created an innovation in the form of the Gobis Surabaya Bus application which is designed to provide access that can make it easier for Surabaya residents to receive information about public transportation, especially the Suroboyo Bus. With adequate features in accordance with current developments such as bus routes and tracking, microlet and city bus routes, bottle exchange points, and information about historical tours and shopping centers in the city of Surabaya.

Access is the ability or opportunity for a person or agency to use something, such as information, services, or resources, both physically and technologically. In a broader context, access also includes the ease and speed of obtaining or using something without any significant obstacles. In the context of the description above, what is meant by "providing access in the form of an application" is providing convenience and opportunities for the public to obtain information about public transportation through the use of the Gobis Surabaya Bus application provided by the Surabaya City Transportation Service.

3. Utilization of Human Resources

Human resources are something that greatly determines the achievement of success in the implementation of an organization or agency in community life (Walad et al., 2022). Utilization of human resources in optimizing the Gobis Surabaya Bus system is very important to provide services to Suroboyo Bus users not only for service matters, human resources are also important in terms of service development, controlling the operation of the Suroboyo Bus fleet, evaluating the Gobis Surabaya Bus application system and so on in order to improve optimization of the application system and also services on Suroboyo Bus. This aims to develop agencies in terms of providing optimal services and also making the city of Surabaya an advanced city in terms of facilities and infrastructure.

Human resources have several meanings, namely human resources are labor services that are useful for the continuity of production, while the second meaning of human resources is a group of people who are able to provide services. In other words, human resources play an important role in optimizing the system for the Gobis Surabaya Bus application and services in each Suroboyo Bus unit (Purwanto, 2020). Researchers need to know more about the utilization of human resources in operational services at the Suroboyo Bus unit and system optimization in the Gobis Surabaya Bus application to achieve system services that have been designed by the Technical Implementation Unit of the Public Transportation Management Service in evaluating the performance of the Gobis Surabaya Bus application and Suroboyo Bus operations.

Factors Affecting Optimization of Gobis Surabaya Bus System Services

In the context of optimization, there must be pros and cons in every problem, with the existence of factors that can be used as an evaluation by related agencies that manage the Gobis Surabaya Bus application system so that they can increase value in various internal and external aspects, both public and non-public. During the study, researchers found several factors that could affect the optimization of the Gobis Surabaya Bus application system service.

In every topic of discussion, there are always factors that inhibit the process, such as those that will be discussed regarding the factors that inhibit the optimization of the Gobis Surabaya Bus application system so that what is planned cannot be achieved, here are three inhibiting factors:

1. Budget Limitations

Still a factor that is often found in every agency, especially agencies that require large funds for optimization in all matters. In the context of optimizing the system in the Gobis Surabaya Bus application, this factor is experiencing which hinders the implementation of UPTD PTU to provide the facilities needed by each field in order to provide optimal service in the performance of the Gobis Surabaya Bus application system. that the budget is indeed the main factor in every agency, but the statement above states that the budget is not a significant obstacle in the implementation of system optimization in the Gobis application. With optimal budget management, budget limitations will not affect the optimization of the application system so that UPTD PTU continues to provide maximum service to users. This proves that UPTD PTU carries out its main tasks in accordance with the provisions that have been set. Conditions in the field and in the system are very different, as well as budget management both in the field and the application system cannot be equated. In terms of maintaining bus stops as Suroboyo Bus infrastructure, it is managed by the Surabaya City Transportation Agency, but for the budget for facilities

and application systems, everything is managed by UPTD PTU as the manager and maintenance of Suroboyo Bus. The absence of the Gobis Surabaya Bus application on iOS is because the Surabaya City Government has not provided an account for all agencies that want to provide applications on iOS. Therefore, most applications under the auspices of the Surabaya City Agency are not yet available on iOS, because the account to create the application is managed by the City Government and does not belong to an individual agency. This hampers optimization to all users and requires finding other alternatives to obtain information about tracking Suroboyo Bus and cannot exchange bottles for payment points because the member feature is only available in the Gobis Surabaya Bus application. Therefore, the researcher dug up in-depth information by interviewing the Suroboyo Bus helper officer and two sources who are users of the Gobis Surabaya Bus application and Suroboyo Bus users.

2. Limitations for iOS Users

The application is an icon that is always expected to be available on all platforms such as Playstore and iOS which are widely known by people, it is undeniable that not all types of applications are on both platforms. Gobis Surabaya Bus application is one example of this application which is not available on iOS which makes iOS users have to use the Trans Jatim application to see the Suroboyo Bus tracking, this makes the information service on the Gobis Surabaya Bus application not fully optimal. In this case, the researcher dug up information about the Gobis Surabaya Bus application which is not available on iOS, by interviewing Mrs. NF as the Service Planning and Development Staff.

3. Lack of Public Awareness

The community plays a very important role in improving or optimizing the application system and in the operation of Suroboyo Bus, because with reviews from users and the community that make UPTD PTU as the manager of Suroboyo Bus want to provide the best facilities without any shortcomings. The community can indeed support or be a factor that hinders the optimization of the application, public awareness is needed for the success of the program that has been planned for the benefit of users and the form of optimization of the application system, but not a few people in the community play with the system or program that has been designed to facilitate other users. Therefore, the importance of evaluation every time there is a new program is very important to ensure that operations run smoothly or not, and the importance of reports from officers regarding the program that is running for smooth operations.

From the three inhibiting factors above, it can be seen that in optimizing the system, not everything runs smoothly, there are always obstacles and evaluations in each program and so on. With these inhibiting factors, UPTD PTU as the manager of the Gobis Surabaya Bus application system and

all Suroboyo Bus units can improve services to users and carry out regular system updates for the Gobis and Suroboyo Bus applications to become superior icons in the city of Surabaya. Inhibiting factors can also be used as a benchmark for the level of optimization in a system properly, and can also be used as experience in creating new programs or systems.

CONCLUSION

Optimization of the Gobis Surabaya Bus System to Facilitate the Public in Using Public Transportation in the City of Surabaya, it can be concluded that the optimization of the system in the Gobis Surabaya Bus application is quite optimal in providing information system services in the Gobis application, it's just that there are several obstacles that occur in one of the indicators that need to be considered so that they can be managed better to be more optimal in providing services both directly or through the Gobis application. In assessing the level of optimization, there are three indicators that are used as a comparison of whether an activity has been optimal or not, as follows: 1. Service Standards; 2. Providing Access; 3. Utilization of Human Resources. Factors that Influence the Optimization of the Gobis Surabaya Bus System Service, including inhibiting factors and supporting factors. For inhibiting factors, there are 3 aspects discussed by researchers, namely budget constraints, limitations for iOS users, and lack of public awareness. In inhibiting factors, it can be concluded that there are several things that may be significant factors in information services in the Gobis application. For supporting factors, there are 2 aspects that support the optimization process, but this does not prevent if there are obstacles in it, the first is technological development and the second is community participation. In supporting factors, it can be concluded that everything is running optimally but there are several things that must be considered routinely so as not to make these factors into factors that can hinder the optimization process.

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