

RECOMMENDATIONS FOR IMPROVING THE QUALITY OF INTERCITY BUS TRANSPORTATION SERVICES IN BALI PROVINCE RESULTS OF THE QUESTIONNAIRE

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ABSTRACT

The quality of public transportation services has not been able to meet the transportation needs of the community. The purpose of the study was to determine the recommendations for improving the Intercity Bus Within the Province (AKDP) service. The quantitative method was used to determine the quality of AKDP Bus public transportation services in Bali from the analysis of questionnaire data. The respondent population was users of AKDP Bus public transportation services who stopped at the Mengwi Terminal. The number of respondents was 371 people. The analysis of service quality was carried out using the Importance Performance Analysis (IPA) method in the form of quadrant analysis and gap analysis to determine recommendations for superior services and priority services for improvement. Recommendations for service improvements include the provision of glass breaker tools or hammers, emergency doors, and special space in the trunk for storing wheelchairs. In addition, it is necessary to check the vehicle before it is operated and provide information at the counter about the routes to be served. The results of the study can be used by AKDP bus service providers to improve services.

Keywords: gap analysis; intercity buses within provinces; importance performance analysis, quadrant analysis; service quality

INTRODUCTION

Intercity bus public transportation plays a very important role in the mobility of residents in Bali Province. With destinations involving various cities and regencies on the island, intercity bus services are the backbone of the public transportation system (Nurfazira et al., 2024). Passengers can easily move from one area to another, supporting regional connectivity and economic growth. Here, intercity buses within the province play a dual role as the main means of transportation and a feeder for intercity transportation outside the province (Nugraha et al., 2021). In addition, intercity buses also play a role in reducing private traffic congestion, reducing greenhouse gas emissions, and providing sustainable solutions to transportation challenges in the area. Where private vehicles are contributors to vehicle exhaust gases (Suartawan et al., 2022). With organized routes and regular schedules, intercity buses provide easy accessibility for people who do not have private vehicles, creating equality in access to transportation. Thus, the role of intercity buses in Bali Province is not only limited to practical aspects but also has a positive impact on the environment and the welfare of society as a whole.

Despite its important role in the transportation system in Bali Province, intercity bus public transportation also faces several problems. One of the main challenges is traffic congestion, especially in densely populated areas or main routes. This can result in increased travel time for passengers and reduce service efficiency. The lack of integration of bus service routes with national strategic areas in Bali also reduces public interest in using buses (Ginting et al., 2022). In addition, limited road infrastructure and poor road conditions in some areas can affect travel comfort. The density of vehicle volume on the highway influences these poor road conditions (Li et al., 2024). Weather uncertainty, especially during the rainy season, can also have a

negative impact on the availability and quality of services. Bad weather conditions, including heavy rain, suboptimal temperatures, and strong winds, contribute to an increase in the frequency of road accidents, especially during heavy weekday traffic (Hsu, 2024). Issues related to operational management, including fleet maintenance, time management, and regulations that may require updating to improve the efficiency and quality of intercity bus public transportation services in Bali Province, should also be considered. Improvement and innovation efforts to overcome these problems are important to increase the competitiveness and sustainability of the public transportation system in the region. According to the trend, the use of public transportation is decreasing every year (Mardikawati et al., 2022). This results in a decrease in the income of public transportation providers. such as the operation of the Trans Metro Dewata Bus is not financially feasible (Tapa et al., 2022).

Public interest in intercity bus public transportation in Bali Province reflects the dynamics of urban mobility and the transportation needs of local residents. Where mobility is driven by system integration with the potential for movement provided by the urban network (Ana Paula Borba Gonçalves Barros, 2024). Along with the awareness of the importance of contributing to reducing congestion and air pollution, many Balinese people have shown positive interest in using intercity buses as a transportation option (Mardikawati et al., 2022). Especially among residents who do not have private vehicles or who are looking for economical alternatives, intercity buses are an attractive option. In addition, sustainable transportation development programs and improvements in service quality by local authorities have also encouraged public interest in using public transportation (Ana Paula Borba Gonçalves Barros, 2024). The existence of environmentally friendly facilities and services, such as buses with environmentally friendly technology or routes that are integrated with other modes of transportation, is also an attractive factor for the community. However, challenges such as possibly longer travel times and limited bus route networks can be obstacles for some individuals. It is known that out of 120 respondents, 72% stated that they were interested in using the Dewata Metro Bus service but used it because it was considered less effective than private vehicles (Nugraha et al., 2021). Therefore, continuous improvement in the quality, efficiency, and comfort of intercity bus services is expected to continue to increase public interest and participation in using public transportation in Bali Province.

Improving intercity bus public transportation services in Bali Province is one of the keys to increasing public interest in using public transportation. Improving critical aspects, such as schedule reliability, service frequency, comfort, and safety, must be the main focus in efforts to improve service quality. The results of the preferences of Trans Metro Dewata Bali Bus users emphasize the safety factor as an important part of improving service quality (Wardana et al., 2024). Improving operational efficiency, including routine fleet maintenance and increasing schedule regularity, will provide a better travel experience for passengers and also demonstrate adequate bus fleet service organization performance (James, 2024) In addition, the integration of easier payment systems and the latest information technology can provide extra convenience for public transportation users. Training and development programs for intercity bus crews are also important to ensure friendly and professional service, increasing positive public perceptions of public transportation. By involving the community in the planning and development process and providing services that are responsive to local needs, authorities can create a more attractive intercity bus public transportation system that meets community expectations, which in turn can encourage increased community participation in using public transportation. Where environmental and organizational factors are considered to determine the safety performance of bus companies (Chang & Yeh, 2005). Good public transportation can maximize limited road capacity, thereby reducing the negative impacts of

transportation (Setiawan et al., 2019).

Although specific data on previous studies on the analysis of intercity bus service quality in Bali Province may be limited, similar studies in various regions have provided valuable insights related to improving public transportation services. Several studies highlight critical aspects in evaluating service quality, such as time reliability, fleet cleanliness, passenger comfort, and safety aspects. Such as the study of the safety aspects of AKDP/AKAP bus passengers through driver training and safety facilities in Bali (Setyabudi, 2011). The study explained that there were several factors that caused the accident, namely vehicle calibration. Furthermore, a study of passenger comfort regarding the length of the queue when boarding the bus (Situmorang et al., 2018). The article discusses providing a discourse on the performance measurement of the queuing system on each bus route. There is also a study on the fulfillment of the bus fleet to meet the transportation needs of the community (Latif & Suhirkam, 2013). By detailing these findings in a local context, further research can be the basis for a more appropriate and successful strategy for improving the quality of public transportation services in the region. These studies are local and specifically aimed at examining the quality of service of a public transportation provider. There have been no studies comparing the service quality of several bus operators with different numbers of trips.

The need for analysis of the quality of intercity bus public transportation services in Bali Province is very important to improve efficiency, comfort, and user satisfaction. In the face of growing urbanization and population density, a deep understanding of the extent to which the service meets community expectations is key in planning and developing public transportation. Through service quality analysis, aspects that need to be improved can be identified, such as schedule reliability, service frequency, seat availability, and fleet cleanliness. In addition, evaluation of the interaction between passengers and management, including the level of safety and friendliness of staff, can also provide valuable insights to improve the user experience. The results of this analysis can help transportation authorities and intercity bus operators take appropriate steps to improve service quality, overcome obstacles faced, and design policies that are more responsive to community needs. In addition, the results of the study can be used to formulate policies by regulators. Regulatory policies are a benchmark for the level of public transportation services, so that they are appropriate and effective (Siswoyo, 2008). Thus, service quality analysis is not only an evaluation tool but also a strategic basis for creating a more effective, efficient intercity bus public transportation system that can meet user expectations.

Based on the above study, the author intends to conduct research with the aim of determining the quality of service from several intercity public transportation bus operators within the province (AKDP) in Bali. The research study is in the form of a comparison of superior quality and improvements related to the number of trips made by bus operators. The results of the study were obtained from the analysis of AKDP bus service quality questionnaire data in the form of AKDP bus user preferences from each operator. The problem-solving plan is to analyze the quality of performance and the interests of each AKDP bus service quality.

METHOD

The quantitative method approach was carried out in the study of the quality of intercity bus transportation services within the province. The scope of the study is the quality of service from the preferences of AKDP bus service users in Bali obtained from service quality questionnaire data. The object of the study was AKDP bus passengers who stopped at the Mengwi Terminal, where the location was chosen because starting in 2021, every AKDP bus will stop at the

Mengwi Terminal. The questionnaire asked about the importance and performance of each service provided. There are 6 service factors based on the Regulation of the Minister of Transportation of the Republic of Indonesia Number PM 29 of 2015 concerning Minimum Service Standards for Transportation of People by Public Motorized Vehicles on Routes, namely: security, safety, comfort, affordability, equality, and regularity. Furthermore, as an impact of the COVID-19 pandemic, an additional performance quality group is needed in the form of a health protocol. Furthermore, based on the results of the study from the bus performance quality research, other qualities were added. Each service factor is described into several indicators, as follows:

Security: 1.1 There is proof of passenger payment; 1.2 There is proof of storage of goods in the trunk; 1.3 There are hazard lights; 1.4 There is a list of passenger names; 1.5 Vehicle crew wears identification tags; 1.6 Provision of information on security disturbances; 1.7 Provision of route information and vehicle identity.

Safety: 2.1 The driver is always in fit condition when driving; 2.2 The driver has good driving skills; 2.3 There is a flashlight; 2.4 There is a glass breaker or hammer; 2.5 There is a Light Fire Extinguisher (APAR); 2.6 There are health facilities (in the form of first aid kits); 2.7 There is a passenger manual; 2.8 There is an emergency door; 2.9 There is a spare tire; 2.10 There is a window curtain rail; 2.11 There is a speed limiter; 2.12 There are handrails; 2.13 Electricity for audiovisual meets the Indonesian National Standard (SIN); 2.14 There are seat belts; 2.15 Vehicle checks are carried out before operation; 2.16 There is traffic accident insurance.

Comfort: 3.1 The number of passengers carried is in accordance with the capacity of the bus; 3.2 There are main facilities in the form of seats; 3.3 There are main facilities in the form of seat numbers; 3.4 There are main facilities in the form of air circulation facilities; 3.5 There are main facilities in the form of luggage racks; 3.6 There are main facilities in the form of lower luggage; 3.7 There are main facilities in the form of health facilities (trash cans/paper bags/plastic bags); 3.8 There are additional facilities in the form of window film; 3.9 There are additional facilities in the form of audiovisual facilities placed in the passenger room; 3.10 There are additional curtain facilities; 3.11 There are additional room temperature control facilities; 3.12 There are additional facilities in the form of adjustable seats (for comfort); 3.13 There are additional facilities in the form of no smoking pictures or writing.

Accessibility: 4.1 The bus is easily accessible from your home; 4.2 The bus runs on a predetermined route; 4.3 Information on fare amounts is provided; 4.4 The bus fare is affordable for you.

Equality: 5.1 There is priority for purchasing tickets and selecting seats for passengers with disabilities, elderly people, children, and pregnant women; 5.2 There is priority for boarding/alighting the vehicle for passengers with disabilities, elderly people, children, and pregnant women; 5.3 There is special space in the luggage compartment for wheelchair storage.

Regularity: 6.1 Providing information at the counter about the arrival and departure schedule of the bus; 6.2 Providing information at the counter about the fare; 6.3 Providing information at the counter about the name of the terminal to be served; 6.4 Providing information at the counter about the route to be served; 6.5 Terminal officers provide information about bus disruptions.

Health Protocols: 7.1 buses are cleaned regularly with disinfectants; 7.2 Hand sanitizers or handwashing facilities are available for passengers getting on and off the transportation; 7.3 Information is provided to passengers to follow the recommended health protocols; 7.4 The air circulation of your public transportation is good, so it can minimize the spread of COVID-19; 7.5 The body temperature of everyone who wants to get on the transportation is checked at the entrance.

Other Factors: 8.1 buses are reliable/punctual; 8.2 buses have regular service frequencies; 8.3 buses have a short passenger queue (Situmorang et al., 2018); 8.4 Bus fleets meet consumer

needs (Latif & Suhirkam, 2013); 8.5 There are seating facilities waiting for the arrival of the bus at the bus stop/terminal(Latif & Suhirkam, 2013); 8.6 There is a bus ticket purchase application (Adriansyah, 2023).

The respondent population is the average monthly number of AKDP bus users, where passenger data was obtained from the Mengwi Terminal manager, which was 6,164 people. Furthermore, according to the sample table from Krejcie and Morgan, the number of target respondents was 361 people (Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia Nomor 14 Tahun 2017). Based on the target respondents, a proportion was carried out to determine the number of target respondents from each transportation service provider according to the number of trips. Questionnaire data analysis using the Importance Performance Analysis (IPA) method. IPA analysis is in the form of quadrant analysis and gap analysis. Based on the results of the analysis, the position of each service in the IPA quadrant and the Gap Analysis value are known. The service position from the quadrant is obtained from sequential pairs of performance and importance. Furthermore, the average performance and importance become the x-axis and y-axis of the IPA quadrant, as in Figure 1.

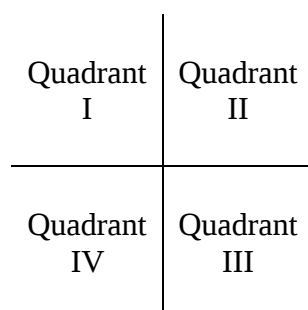


Figure 1. Importance Performance Analysis (IPA) Quadrant

The selection of the IPA method because it can provide a clear picture of the service position, making it easy to provide recommendations. Based on the service position, recommendations can be given as in Table 1.

Table 1.
Recommendations for Importance Performance Analysis (IPA) Results

Area	Kriteria	Rekomendasi
Quadrant I	Concentrate Here	Items/services are located in quadrant I, considered by respondents to be very important, but performance is not satisfactory, so PO Bus AKDP must improve the quality of performance.
Quadrant II	Keep Up the Good Work	Items/services are located in quadrant II, considered by respondents to be very important, and the performance is very satisfactory, so PO Bus AKDP must maintain the quality of its services.
Quadrant III	Possible Overkill	Items/services are located in quadrant III, considered by respondents to be unimportant, but performance is satisfactory.
Quadrant IV	Low Priority	Items/services are located in quadrant IV, considered by respondents to be unimportant, and performance is less than satisfactory.

Source: (Syahputra et al., 2020)

If a service is on the coordinate axis, then the service is included in 2 quadrant areas that are limited by the axis. Furthermore, gap analysis is used to determine the gap between the desired state of the respondent (seen from the value of interest) and the actual state (seen from the value of service performance).

$$GAP = Y_k - Y_p$$

Information:

Y_k = Important Values

Y_p = Performance value

There are 3 criteria used in GAP analysis, consisting of:

GAP = 0, then the importance value is the same as the performance value, which means that the service performance is in accordance with the interests or expectations of the respondents.

GAP > 0, then the importance value is less than the performance value, which means that the service performance exceeds the respondents' interests or expectations.

GAP < 0, then the importance value is greater than the performance value, which means that the service performance has not met the interests or expectations of the respondents.

Furthermore, according to Parasuraman 1991 (in Yulianti, 2017), if the gap value < -1 means it is good, and the result > -1 means the quality of service provided is not good.

Service quality analysis was conducted on 5 AKDP buses with the largest number of passengers. This was done in addition to knowing the service position of each AKDP bus provider; it was also used to determine the differences in service positions of buses with different numbers of trips. Before the IPA analysis was conducted, an instrument test was conducted in the form of a validity test and a reliability test. The validity test was conducted to determine the validity of each answer item with a total score. Furthermore, the reliability analysis was used for the consistency of the questionnaire created.

RESULT AND DISCUSSION

The respondents of the Bali AKDP Bus Service questionnaire were known to be 387 people from the target of 361 people, so the respondent target has been met. Based on the highest percentage, the characteristics of Bali AKDP Bus service users are as follows:

1. Male gender, 212 people, or 54.78%;
2. Age 36-45 years old, as many as 144 people, or 37.21%;
3. Last education is high school; as many as 201 people, or 51.94%;
4. Occupation is housewife; as many as 92 people, or 23.77%;
5. Income 1,000,000-2,000,000 as many as 136 people, or 35.66%;
6. Vehicle ownership is only a motorbike as many as 306 people or 79.07%;
7. Reason for travel for personal travel (visiting family/friends): as many as 246 people, or 63.57%;
8. Origin of travel from Badung Regency: as many as 169 people, or 43.67%;
9. Purpose of travel to Jembrana Regency: as many as 154 people, or 39.79%.

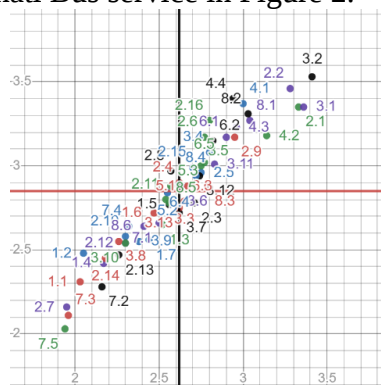
Furthermore, the bus service providers with the largest number of passengers are as follows:

1. Sehati Bus with 39,387 trips per year.
2. Megah Bus with 5,367 trips per year.
3. Yusa Darmadi Bus with 4,771 trips per year.
4. Darma Bus with 4,340 trips per year.
5. Bahagia Bus with 3,013 trips per year.

Instrument testing in the form of validity and reliability testing was carried out with the help of SPSS software. Validity and reliability tests were carried out for performance and interest data. From the results of the validity analysis with the help of SPSS software using the Pearson Correlation test, it is known that all items on performance and interest have a significance value of 0.000. This means that the instrument is valid. Furthermore, for the reliability test on performance, a value of 0.988 was obtained and on interest 0.979. Where both values are above 0.7. So that both data are valid and reliable, and can be continued to the IPA analysis.

1. Quality of Sehati Bus Services

Cartesian coordinates of the Sehati Bus service in Figure 2.



Source: Research (2023)

Figure 2. IPA Quadrant of Sehati Bus Service

Based on Figure 2, the quadrants of each service item are mapped in Table 2.

Table 2.

Position of Sehati Bus Service Items in the IPA Quadrant

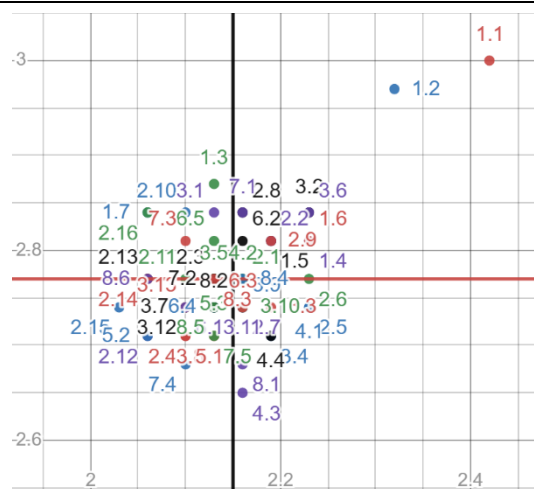
Position	Criteria	Number of Service Items
Quadrant I	Concentrate Here	5 service
Quadrant II	Keep Up the Good Work	30 service
Quadrant III	Possible Overkill	4 service
Quadrant IV	Low Priority	26 service

Source: Research (2023)

Based on the gap analysis, it is known that all Sehati Bus services have a value of importance greater than the value of performance. Thus, a negative gap value is obtained for each service. However, the value is more than -1. Thus, it can be concluded that the preference for the quality of Sehati Bus services by users is still good.

Quality of Megah Bus Service

Cartesian coordinates of the Megah Bus service in Figure 3.



Source: Research (2023)

Figure 3. Quadrant of Megah Bus Service Science

Based on Figure 3, the quadrants of each service item are mapped in Table 3.

Table 3
. Position of Megah Bus Service Items in the IPA Quadrant

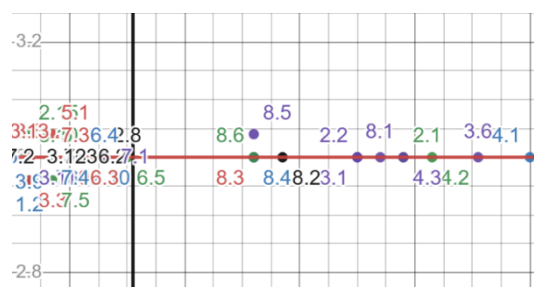
Position	Criteria	Number of Service Items
Quadrant I	Concentrate Here	16 service
Quadrant II	Keep Up the Good Work	21 service
Quadrant III	Possible Overkill	15 service
Quadrant IV	Low Priority	24 service

Source: Research (2023)

Based on the gap analysis, it is known that all Megah Bus services have a value of importance greater than the value of performance. Thus, a negative gap value is obtained for each service. However, the value is more than -1. Thus, it can be concluded that the preference for the quality of Megah Bus services by users is still good.

Yusa Darmadi Bus Service Quality

Cartesian coordinates of the Yusa Darmadi Bus service in Figure 4.



Source: Research (2023)

Figure 4. Quadrant of Yusa Darmadi Bus Service Science

Based on Figure 4, the quadrants of each service item are mapped in Table 4.

Table 4.
Position of Yusa Darmadi Bus Service Items in the IPA Quadrant

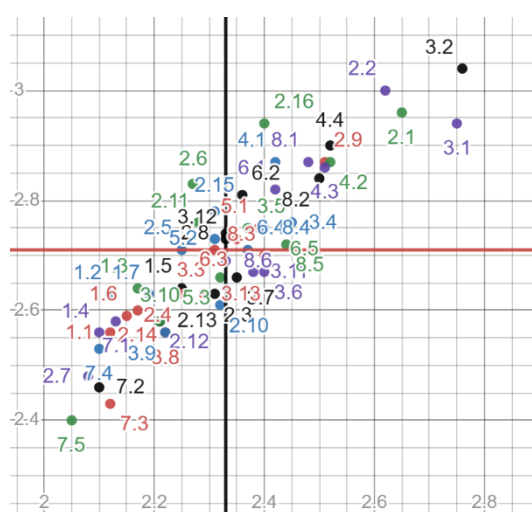
Position	Criteria	Number of Service Items
Quadrant I	Concentrate Here	42 service
Quadrant II	Keep Up the Good Work	14 service
Quadrant III	Possible Overkill	13 service
Quadrant IV	Low Priority	42 service

Source: Research (2023)

Based on the gap analysis, it is known that all Yusa Darmadi Bus services have a value of importance greater than the value of performance. Thus, a negative Gap value is obtained for each service and is less than -1, except for items 3.2, 4.1, and 4.4. Thus, it can be concluded that the preference for the quality of Yusa Darmadi Bus services by users is not good.

Darma Bus Service Quality

Cartesian coordinates of the Darma Bus service in Figure 5.



Source: Research (2023)

Figure 5. Quadrant of Darma Bus Service Science

Based on Figure 5, the quadrants of each service item are mapped in Table 5.

Table 5.
Position of Darma Bus Service Items in the IPA Quadrant

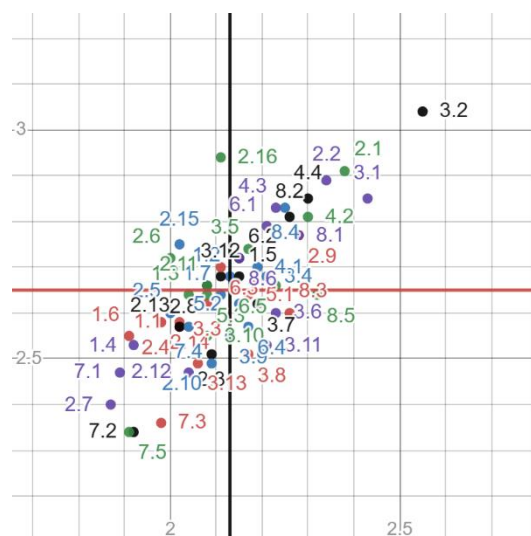
Position	Criteria	Number of Service Items
Quadrant I	Concentrate Here	8 service
Quadrant II	Keep Up the Good Work	24 service
Quadrant III	Possible Overkill	6 service
Quadrant IV	Low Priority	27 service

Source: Research (2023)

Based on the gap analysis, it is known that all Bus Darma services have a value of importance greater than the value of performance. Thus, a negative gap value is obtained for each service. However, the value is more than -1. Thus, it can be concluded that the preference for the quality of Bus Darma services by users is still good.

Bahagia Bus Service Quality

Cartesian coordinates of the Bahagia Bus service in Figure 6.



Source: Research (2023)

Figure 6. Quadrant of Bahagia Bus Service Science

Based on Figure 6, the quadrants of each service item are mapped in Table 6.

Table 6.
Position of Bahagia Bus Service Items in the IPA Quadrant

Position	Criteria	Number of Service Items
Quadrant I	Concentrate Here	8 service
Quadrant II	Keep Up the Good Work	20 service
Quadrant III	Possible Overkill	10 service
Quadrant IV	Low Priority	23 service

Source: Research (2023)

Based on the gap analysis, it is known that all Bus Bahagia services have a value of importance greater than the value of performance. Thus, a negative gap value is obtained for each service. However, the value is more than -1. Thus, it can be concluded that the preference for the quality of Bus Bahagia services by users is still good.

Based on the results of the IPA analysis in the previous section, the superior services in quadrant II and repair services in quadrant I will be mapped from each Bali AKDP Bus operator.

Excellent Service 5 AKDP Bali Buses

Based on Tables 2 to 6, it is known that the superior services of the five Bali AKDP buses with the largest number of passengers are as shown in Table 7.

Table 7.
Excellent Services in Quadrant II of Bali AKDP Bus

Bus Service Provider	Service Items
Sehati Bus	2.1; 2.2; 2.4; 2.5; 2.6; 2.9; 2.15; 2.16; 3.1; 3.2; 3.4; 3.5; 3.6; 3.11; 3.12; 4.1; 4.2; 4.3; 4.4; 5.1; 5.2; 6.1; 6.2; 6.3; 6.4; 6.5; 8.1; 8.2; 8.3; 8.4
Megah Bus	1.1; 1.2; 1.4; 1.5; 1.6; 2.1; 2.2; 2.6; 2.8; 2.9; 2.16; 3.1; 3.2; 3.6; 4.2; 4.4; 5.1; 6.2; 6.5; 7.1; 8.4
Yusa Darmadi Bus	2.1; 3.1; 3.2; 3.6; 4.1; 4.2; 4.3; 4.4; 8.1; 8.2; 8.3; 8.4; 8.5; 8.6
Darma Bus	2.1; 2.2; 2.8; 2.9; 2.16; 3.1; 3.2; 3.4; 3.5; 3.12; 4.1; 4.2; 4.3; 4.4; 5.1; 6.1; 6.2; 6.3; 6.4; 6.5; 8.1; 8.2; 8.4; 8.5
Bahagia Bus	1.2; 1.5; 2.1; 2.2; 2.9; 3.1; 3.2; 3.4; 3.5; 4.1; 4.2; 4.3; 4.4; 6.1; 6.2; 6.5; 8.1; 8.2; 8.4; 8.6

Source: Research (2023)

Based on Table 7, it is known that the superior services owned by the five AKDP bus providers are:

Safety: The driver is always in good condition when driving.

Comfort: The number of passengers transported is in accordance with the capacity of the bus, and there are main facilities in the form of seats.

Affordability: The bus passes through the designated route, and the bus fares are affordable for you.

Others: The bus fleet meets consumer needs. As seen in Table 7, Sehati Bus with the most passengers also has the most excellent services, which is 30 service items. This explains that there is a correlation between the number of excellent services and the number of passengers.

Repair service for 5 AKDP Bali buses

Based on Tables 2 to 6, it is known that the services that require improvement are the five Bali AKDP buses with the largest number of passengers, as in Table 8.

Table 8.
Repair Services in Quadrant I of Bali AKDP Buses

Bus Service Provider	Service Items
Sehati Bus	2.4; 2.8; 5.3; 6.3; 6.4
Megah Bus	1.3; 1.7; 2.3; 2.10; 2.11; 2.13; 2.14; 2.16; 3.1; 3.5; 5.3; 6.5; 7.2; 7.3; 8.3; 8.6
Yusa Darmadi Bus	1.1; 1.3; 1.4; 1.5; 1.6; 1.7; 2.2; 2.3; 2.4; 2.5; 2.6; 2.7; 2.8; 2.9; 2.10; 2.11; 2.12; 2.13; 2.14; 2.15; 2.16; 3.4; 3.5; 3.7; 3.8; 3.9; 3.10; 3.11; 3.12; 3.13; 5.1; 5.2; 5.3; 6.1; 6.2; 6.3; 6.4; 6.5; 7.1; 7.2; 7.3; 7.4
Darma Bus	2.5; 2.6; 2.8; 2.11; 2.15; 3.3; 3.12; 5.2
Bahagia Bus	1.2; 2.6; 2.8; 2.11; 2.15; 2.16; 3.12; 6.3

Based on Table 8, the affordability factor is a service that does not need to be improved. However, almost all services have service improvements that need to be made. The service items that need to be improved for 4 buses are as follows: **Safety**, there is an emergency door, and there is a speed limiter. Furthermore, the repair services that need to be improved by the 3 AKDP bus providers are as follows: **Safety:** There are health facilities; vehicle checks are carried out before being operated; and there is traffic accident insurance. **Comfort:** There are additional facilities in the form of adjustable seats (for comfort). **Equality:** There is a special space in the trunk for wheelchair storage.

Ordinance: Provision of information at the counter about the name of the terminal to be served.

Based on Table 8, there are no identical repair services from the five AKDP Bus providers. However, it can be seen that the Sehati Bus with the most passengers has the fewest repair services, namely 5 service items. Furthermore, the Yusa Darmadi Bus with the 3rd most passengers has the most repair services. This is also in accordance with the results of the gap

analysis, which explains that the quality of the Yusa Darmadi Bus service is not good. From the number of superior services in Table 7 and priority repair services in Table 8, it is known that the bus with the largest number of passengers has the most superior services and the fewest priority repair services. This explains that there is a relationship between mode selection and service quality. Where user trust and service quality together influence the interest in using public transportation (Fadhlilah & Mariah, 2024).

CONCLUSION

Data analysis of service quality using the IPA method has been proven to provide a clear picture of the service position of each bus provider, along with a comparison of superior services and repair services. Superior services are known from service items in quadrant II of IPA, where the similarities in the five bus companies are that the driver is always fit when driving, the number of passengers transported is in accordance with the bus capacity, there are main facilities in the form of seats, the bus passes the predetermined route, the bus fare is affordable for you, and the bus fleet meets consumer needs. Furthermore, priority repair services are known from service items in quadrant I of IPA, where the similarities in the five bus companies are that there are emergency doors and speed limits. Other results show that Sehati Bus, with the largest number of passengers, has the largest number of superior services and the fewest repair services. This explains that there is a relationship between mode selection and service quality. However, this does not happen in all bus services. Therefore, further studies are needed to determine the factors that influence public interest in taking public transportation in addition to the quality of public transportation services. The results of the study can be used for service providers Sehati Bus, Megah Bus, Yusa Darmadi Bus, Darma Bus, and Bahagia Bus to improve their performance services.

REFERENCE

- Adriansyah, M. (2023). Pembuatan Aplikasi Pemesanan Tiket Bus AKDP (Angkutan Kota Dalam Povinsi) Dan AKAP (Angkutan Kota Antar Provinsi) Di Kota Palu Menggunakan Metode Forecasting Berbasis Web. Universitas Tadulako.
- Ana Paula Borba Gonçalves Barros. (2024). Sustainable Urban Mobility: (A)Synchrony between Subway Systems. *Journal of Traffic and Transportation Engineering*, 12(3). <https://doi.org/10.17265/2328-2142/2024.03.005>
- Chang, H.-L., & Yeh, C.-C. (2005). Factors affecting the safety performance of bus companies-The experience of Taiwan bus deregulation. *Safety Science*, 43(5–6), 323–344.
- Fadhlilah, A. D., & Mariah. (2024). Pengaruh Kepercayaan dan Kualitas Pelayanan terhadap Minat Menggunakan Angkutan Umum di Jakarta. *JUKIM Jurnal Ilmiah Multidisiplin*, 3(1), 36–43. <https://doi.org/10.56127/jukim.v3i01>
- Ginting, V. D., Putra, I. K. K., Maharani, N. P. A., Kusuma, R. A. F., & Dwipayana, A. D. (2022). Integration of Buddy Bus Services in National Tourism Strategic Areas in Bali. *Jurnal Rekayasa Sipil Dan Lingkungan*, 6(2), 176–190.
- Hsu, C.-K. (2024). Reconsidering Seasonality, Weather, and Road Safety in Non-temperate Areas: the Case of Kaohsiung, Taiwan. *Travel Behaviour and Society*, 34, 100710. <https://doi.org/https://doi.org/10.1016/j.tbs.2023.100710>

- James, A. T. (2024). Assessment of bus fleet service quality: a graph theoretical approach. *Journal of Advances in Management Research*, ahead-of-print(ahead-of-print). <https://doi.org/10.1108/JAMR-02-2023-0055>
- Latif, A., & Suhirkam, D. (2013). Analisis Kebutuhan Pelayanan Kendaraan Umum AKDP dalam Terminal Alang-Alang Lebar Palembang. *PILAR Jurnal Teknik Sipil*, 9(2), 24–32.
- Li, H., Nyirandayisabye, R., Dong, Q., Niyirora, R., Hakuzweyezu, T., Zardari, I. A., & Nkinahamira, F. (2024). Crack damage prediction of asphalt pavement based on tire noise: A comparison of machine learning algorithms. *Construction and Building Materials*, 414, 134867. <https://doi.org/https://doi.org/10.1016/j.conbuildmat.2024.134867>
- Mardikawati, B., Masyuni, I. A., & Nugraha, A. E. (2022). Forecasting and Trend Analysis Bus Transportation During COVID-19 in Bali Land Using Time Series Method. *UKaRsT*, 6(2), 218. <https://doi.org/10.30737/ukarst.v6i2.3323>
- Nugraha, I. M. A., Cahyani, P. A. G., Pradnyana, P. K. A., Darmayani, K. A., Sadri, P. D. A., & Soimun, A. (2021). Analisis Minat Masyarakat SARBAGITA dalam Penggunaan Bus Trans Metro Dewata Di Era New Normal. *Prosiding Simposium Forum Studi Transportasi Antar Perguruan Tinggi Ke-24 Universitas Indonesia – Universitas Pembangunan Jaya*, 365–375.
- Nurfazira, N. R., Kagatanaribe, N. G. D., Perdana, P. D., & Mardikawati, B. (2024). Keselamatan Merupakan Pilihan Utama Hasil Kuesioner Kualitas Layanan Bus Antar Kota Terminal Mandalika pada Provinsi Lombok. *Berkala FSTPT*, 2(2), 355–363. <https://journal.unej.ac.id/BerkalaFSTPT/article/view/1000>
- Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia Nomor 14 Tahun 2017. (n.d.). Peraturan Menteri Pendayagunaan Aparatur Negara dan Reformasi Birokrasi Republik Indonesia Nomor 14 Tahun 2017 tentang Pedoman Penyusunan Survei Kepuasan Masyarakat Unit Penyelenggara Pelayanan Publik.
- Setiawan, T. H., Putro, H. P. H., & Pradono. (2019). Model Pengembangan Angkutan Umum Kawasan Wisata Dieng Jawa Tengah. *Jurnal Transportasi*, 19(1), 49–58. <https://journal.unpar.ac.id/index.php/journaltransportasi/article/view/3262>
- Setyabudi, B. (2011). Kajian Peningkatan Keselamatan Penumpang Bus AKDP/AKAP melalui Pembinaan Pengemudi dan Fasilitas Keselamatan di Bali. *Jurnal Warta Penelitian Perhubungan*, 23(5), 479–496.
- Siswoyo, M. P. (2008). Kebijakan dan Tantangan Pelayanan Angkutan Umum. *Jurnal Teknik Sipil Dan Perencanaan*, 10(2), 171–180. <https://journal.unnes.ac.id/nju/index.php/jtsp/article/view/6959/5072>
- Situmorang, R. A., Sugito, & Mukid, M. A. (2018). Analisis Antrean Bus Nonpatas AKAP dan AKDP Jalur Timur Terminal Tirtonadi Kota Surakarta. *Jurnal Gaussian*, 7(3), 303–313. <https://ejournal3.undip.ac.id/index.php/gaussian/>
- Suartawan, P. E., Sukmayasa, I. M., & Mardikawati, B. (2022). Pengaruh Kebijakan Pembatasan Kegiatan Wilayah Bali terhadap Keluaran Emisi Gas Buang Kendaraan (CO

- dan NoX) di Jalan Imam Bonjol Denpasar pada Masa Pandemi COVID-19. *Jurnal Penelitian Sekolah Tinggi Transportasi Darat*, 13(2), 20–29.
- Syahputra, H., Ramadhanu, A., & Putra, R. B. (2020). Penerapan Metode Importance Performance Analysis (IPA) untuk Mengukur Kualitas Sistem Informasi Ulangan Harian. *Jurnal Ekonomi Dan Manajemen Sistem Informasi JEMSI*, 1(4), 334–340. <https://doi.org/10.31933/JEMSI>
- Tapa, I. G. F. S., Kumara, I. N. I., Sutapa, I. K., & Wijaya, I. K. S. (2022). Financial Feasibility Analysis Of Trans Metro Dewata Bus Operation In Bali Province. *Jurnal Ilmiah Poli Rekayasa*, 18(1), 7–14.
- Wardana, I. P. G. N., Habibah, C. M., Maheswari, N. K. Y., & Mardikawati, B. (2024). Keselamatan sebagai Layanan Paling Penting Hasil Analisis Kuesioner Layanan Bus Trans Metro Dewata Bali. *Berkala FSTPT*, 2(1), 115–124.
- Yulianti, Y. (2017). Gap Analysis dan Importance Performance Analysis (IPA) pada Program Studi Pendidikan Ekonomi. *Jurnal Pendidikan Dan Ekonomi*, 6(2), 122–133. <https://journal.student.uny.ac.id/index.php/ekonomi/article/view/6086>