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Original Article

Evaluation of Performance Passenger Terminal Isimu Used Integration of IPA-SWOT-AHP

Eriyanto Lihawa[1], Muhammad Yamin Jinca[2], Baharuddin Hamzah[3], Edward Syarif[4]

[1,3,4]*Department of Architecture, Faculty of Engineering, Hasanuddin University, Indonesia.*
[2]*Transportation Engineering, Graduate School of Hasanuddin University, Indonesia.*

[1]*Corresponding Author : erilihawa@gmail.com*

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Abstract *- Terminal transportation infrastructure is support for regional socio-economic activities. Isimu Terminal, the research location located in Gorontalo province, Indonesia, is less effective in its function as an origin and destination transportation node. This research aims to evaluate performance and formulate strategies and priorities for sustainable development. The methods used are Important Performance Analysis (IPA), Strength Weakness Opportunity Threat (SWOT), and Hierarchical Analysis Process (AHP). The results of the analysis show that social and environmental aspects with high expectation values with low performance. The CSI value is at a less effective value. Terminal development policies and strategies are the development of transportation network systems, development and construction of facilities and infrastructure, human resource development and management, and resource development. The implementation of this policy model output can be a consideration for the development of transportation infrastructure in Gorontalo province*.

Keywords *- IPA-SWOT-AHP, Satisfaction Index, Terminal Performance, Development Strategy.*

1. Introduction

The growth of the transportation sector is the cornerstone of successful national development. The successful development of the transportation sector affects economic growth and the growth of a region. Terminals are transportation facilities that catalyze and drive the development of improved urban environments and economic growth and create new opportunities in the surrounding area[1], [2]. Gorontalo Province is one of the regions in Indonesia that continues to experience an increase in travel demand, and this is marked by the increasing population, increasing levels of community economy, and the growth of motorization and private vehicle ownership. Currently, Gorontalo Province has a type A Isimu passenger terminal, which has physically improved infrastructure and facilities, but terminal services still have problems related to transportation and passenger activities. The tendency of passengers to choose to get on and off outside the terminal has led to the emergence of shadow terminals. The shadow terminal is not a legal transportation node for public transportation. In addition, some prospective passengers prefer to use private car travel rental transportation compared to using buses at the terminal, so city transportation buses within the province (AKDP) and inter-regional transportation (AKAP) are no longer operating because they lose competition with rental transportation and other travel transportation. Based on these field facts, it is necessary to evaluate the sustainability performance of the Isimu terminal to see the efficiency and effectiveness of the Isimu terminal service, which is reviewed according to 1). Economic aspects, namely reliability and regularity, 2). Social aspects, namely convenience/affordability and equality, 3). Environmental aspects, namely safety, security, and comfort. The existence of the Isimu terminal as part of the transportation node in the implementation of traffic and road transportation in the Gorontalo region and its surroundings is expected to provide efficient and effective services, thus supporting population mobility and traffic order. Smoothness, accuracy of service, capacity, safety, security, and adequate terminal facilities affect the efficiency and effectiveness of the public transportation system as a whole[3], [4].

2. Literature Review

2.1. Sustainable Transportation

Sustainable transportation development is a plan to achieve sustainable development goals elaborated on three aspects, namely: 1) Economic aspects, increasing the economic efficiency of passenger and goods transportation by providing a choice of transportation modes and supporting the economic movement of the community, 2) Social aspects, improving accessibility, quality, and safety of transportation. 3) Environmental aspects, improving air quality, reducing greenhouse gas emissions and minimizing the use of non-renewable resources [5].

Table 1. Research indicators

Attribute	Indicators	Facility Availability
Economy	XY1.1	Arrival and departure schedule
	XY1.2	Ticket sales counter
	XY1.3	Office facilities
	XY1.4	Terminal staff
Social	XY2.1	Separate lines
	XY2.2	Service Information
	XY2.3	Advanced mode of transportation
	XY2.4	Travel disruption information
	XY2.5	Luggage storage
	XY2.6	Battery charging facilities
	XY2.7	Boarding and alighting points
	XY2.8	Private vehicle parking
	XY2.9	Public vehicle parking
	XY2.10	Facilities for people with disabilities and elderly
	XY2.11	Special space for pregnant and lactating
Environmental	XY3.1	Pedestrian walkway
	XY3.2	Pedestrian safety path facilities
	XY3.3	Vehicle safety facilities
	XY3.4	Evacuation lanes
	XY3.5	Fire-fighting lane
	XY3.6	Vehicle inspection facilities
	XY3.7	Public vehicle repair facilities
	XY3.8	Information Facilities
	XY3.9	Security facilities
	XY3.10	Security complaint media
	XY3.11	Security officer
	XY3.12	Waiting room
	XY3.13	Restrooms
	XY3.14	Worship Facilities
	XY3.15	Green open space
	XY3.16	Restaurant
	XY3.17	Cleaning facilities and staff
	XY3.18	Smoking area
	XY3.19	Drainage
	XY3.20	Internet network
	XY3.21	Reading room
	XY3.22	Lighting

2.2. Related Research

To get comparative attributes in research indicators, the authors summarize and compare indicators that previous researchers have reviewed. Indicators of economic aspects such as departure time, ticket sales counters, office facilities, and management officers, the majority of which were researched by previous researchers [6-9]. Indicators of social aspects such as separation of vehicle lanes, service information, advanced transportation modes, travel disruption information, luggage storage, battery charging facilities, passenger boarding and alighting, private vehicle parking, public vehicle parking, facilities for the disabled and elderly, space for pregnant and lactating mothers, the majority were studied by [6], [10-12]. Indicators of environmental aspects such as pedestrian facilities, vehicle safety facilities, evacuation routes, fire lanes, facilities for officers, vehicle repair facilities, information facilities, security facilities, security complaint media, security officers, waiting rooms, toilets, worship facilities, green open spaces, restaurants, cleaning facilities and staff, smoking areas, drainage, reading rooms, and lighting, the majority were researched by [6], [9-15].

2.3. Research Indicators

Indicators are quantitative data or attributes used to measure a phenomenon in research[16]. In this study, thirty-seven research indicators were determined, as in Table 1, based on the needs of terminal facilities based on previous research.

2.4. Customer Satisfaction Index (CSI)

Measuring customer satisfaction is essential for every institution and service provider. This is because this step can be input to develop and implement strategies to improve the performance of a service. Customer satisfaction is the level of conformity to the desired product or service and the reality received by the customer. The performance of an institution or facility can be measured according to customer satisfaction and needs[17]. Customer Satisfaction Index (CSI) is a service user satisfaction index to determine the level of service user satisfaction by taking into account the level of service importance. The development of CSI measurements is based on the values proposed by Hill, N., & Brierley, J. (2003) combined with a Likert scale and the opinions of local stakeholders, users, and observers of the terminal. CSI criteria based on the development results can be seen in Table 2.

2.5. Important Performance Analysis

Importance Performance Analysis (IPA) is a method used to measure the comparison between the level of importance with the reality proposed by stakeholders and provided by providers or the reality that occurs in the field [18], [19]. This analysis compares consumer assessments of the level of importance of service quality identified as user expectations with the level of service quality performance identified as field facts. The value of the analysis is poured in a Cartesian diagram, as in Figure 1.

Table 2. Effectiveness Index

Value Range (%)	Satisfaction Level	Effectiveness Level
90 -100	Very Satisfied	Very Effective
80 – 89,99	Satisfied	Effective
70 - 79,99	Moderately Satisfied	Moderately Effective
50– 69,99	Less Satisfied	Less Effective
0 – 49,00	Not Satisfied	Not Effective

Source: Development of references from Hill, N., & Brierley, J. 2003 and Likert scale

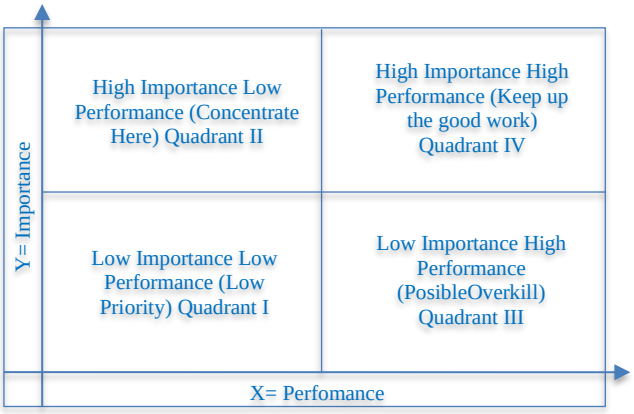

Fig. 1 Cartesian diagram of IPA, J. A. Martilla and J. C. James, 1977

Quadrant I (low priority) contains attributes of low importance and performance, so it is called a minor weakness. Improving the performance of attributes in this quadrant needs to be negotiated and can be postponed. Quadrant II (concentrate here), contains attributes of high importance but low performance attributes. This quadrant is referred to as a major weakness, so it is necessary to improve its performance to produce a higher level of satisfaction. More resources are needed to improve performance in this quadrant. Quadrant III (possible overkill) contains attributes of low importance but is able to achieve high performance. Quadrant IV (keep up the good work) contains attributes of high expectations and high performance. Attributes in this quadrant are referred to as major strengths and should be maintained[18], [20].

2.6. SWOT Analysis

SWOT analysis (Strengths, Weaknesses, Opportunities, and Threats) is a method introduced by Robert Franklin Stewart as one of the strategic planning techniques for an organization[21]–[23]. SWOT analysis considers both internal and external factors that affect terminal performance. Internal factors, or strengths and weaknesses, refer to factors that are within the control of management. These include things like location, facilities, customer service, operational efficiency, and finances. External factors, or opportunities and threats, refer to the external environment; these factors may include market trends, competition, government regulations, technological advances, community participation, and socio-economic conditions. The SWOT analysis matrix is presented in Figure 2.

2.7. Analytic Hierarchy Process (AHP)

Hierarchical analysis process (AHP) is a method of measurement through pairwise comparisons and relies on expert judgment to derive a prioritized scale. It was developed by Tomas L Saaty to find a systematic practice for solving multifactor problems and speeding up decision-making[24]. Process hierarchy analysis is a structured approach used to analyze complex systems or problems by breaking them down into smaller, more manageable components.

By taking a hierarchical approach, organizations can better understand the relationships between various elements and make informed decisions based on a thorough analysis of the interconnected parts. The AHP hierarchical structure is presented in Figure 3. The steps in the hierarchical analysis process are: 1). identify and define objectives and criteria. This step requires consultation with experts to gather collective views and identify critical criteria. 2). Develop a hierarchical structure or model that describes the relationships and dependencies between objectives, criteria, and alternatives. This hierarchical structure is the basis for further analysis. 3). determine the weight of each criterion and objective. 4) Perform the actual analysis using decision-making methods such as the analytic hierarchy process or techniques for preference ordering. These methods allow the evaluation of design alternatives by considering feedback from experts and program users. 5). interpret the analysis results and make decisions based on the analysis results. Interpretation of the analysis results involves analyzing the prioritized criteria, the weight of each criterion, and the ranking or score of alternatives.

Fig. 2 SWOT analysis matrix, Fahim et al. 2021

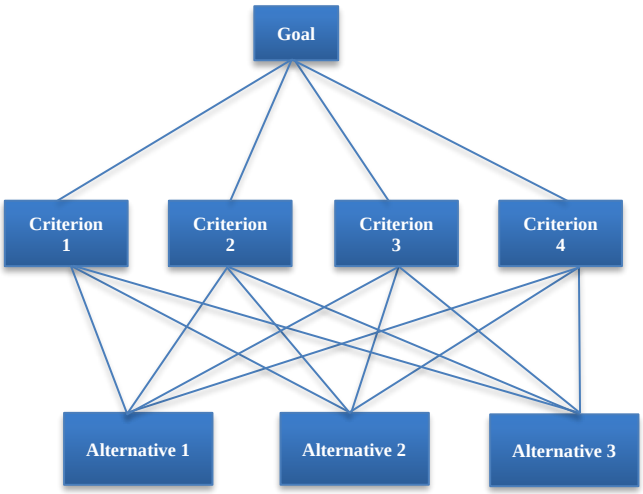

Fig. 3 AHP hierarchical structure, T. L. Saaty 1990

The steps of hierarchical process analysis can be a reference for decision-makers to gain a comprehensive understanding of the factors at play and make appropriate decisions based on the relative importance and performance of alternatives[25].

3. Methods

This research was conducted using qualitative and quantitative methods using questionnaires and interviews with passengers, operators, policymakers, academics, and transportation experts as important dimensions in assessing the performance of Isimu terminal services.

3.1. Research Location

The research was located at the Isimu terminal in Gorontalo Province. Isimu, based on the regional spatial plan and medium-term development plan of Gorontalo, is a Regional Activity Center (PKW) and is an urban area that serves provincial and district-scale activities, trade areas, and integrated industrial and warehousing areas. This area is a gateway for land, air, and sea transportation modes, which has high access to Djalaludin Airport, railway station plans, Gorontalo Port, Kwandang Port, Anggrek Port, Tilamuta Port, Gorontalo City Ferry Port, Isimu Terminal, making this area very strategic.

3.2. Research Sample

This study used a sample of 140 non-probability sampling respondents in qualitative self-interview, consisting of 56% men and 44% women. Respondents based on occupation consisted of 69% passengers, 12% drivers, 12% academics/practitioners/employees, and 7% agents.

Based on the level of education, 44% of respondents have a high school education, 25% have a junior high school education, 17% have a diploma/graduate/master/doctorate, and 14% have a primary school education. Meanwhile, based on the level of visits, 70% of respondents visited 1 to 3 times a month, 20% more than 5 times a month, 6% 3 to 5 times a month, and 4% never visited.

3.3. Statistical Test

At the pre-survey stage, the validity test measures the accuracy and accuracy of the questionnaire. Each question can be said to be valid and accepted if the value of the r-count obtained is greater than the r-table value. The r-count value (corrected item-total correlation) for the performance questionnaire is between 0.2596 - 0.7982, and the r-table value is 0.166. The r-count value (corrected item-total correlation) for the attribute importance questionnaire is between 0.2250 - 0.7813, and the r-table value is 0.166. The calculated value of these two questionnaires is> 0.16 so that the questions in this questionnaire can be declared valid. Furthermore, a reliability test was carried out based on the Chornbach Alpha value with a minimum reliability limit coefficient of 0.6. The results of testing the reliability of the Alpha Chornbach coefficient value of the performance questionnaire 0.892> 0.6 and the interest questionnaire Alpha Chornbach coefficient value of 0.916> 0.6. So, it can be concluded that the indicators used to measure these variables are reliable or not.

3.4. Data Analysis

The analysis methods used are IPA (Importance Performance Analysis), SWOT (strengths, weaknesses, opportunities, and threats), and AHP (Analytical Hierarchy Process) methods. IPA is used to measure service quality attributes and user satisfaction quality. The main principle of IPA is to measure satisfaction compared to perceived importance, and then follow-up is needed on the high and low importance [26, 27]. The Customer Satisfaction Index (CSI) method is used to assess the level of user satisfaction with the performance of the Isimu terminal. The research conceptual framework in Figure 5 shows the combination of analysis of each stage, the relationship between the theoretical concepts used with the subject and object, and the integration of IPA, SWOT, and AHP methods.

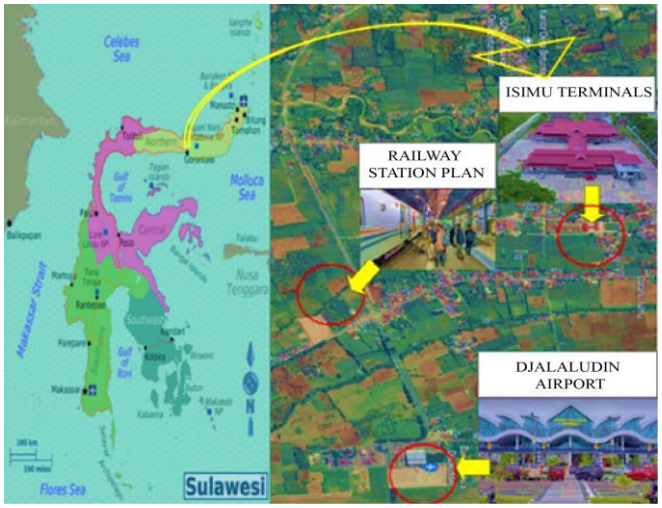

Fig. 4 Research location

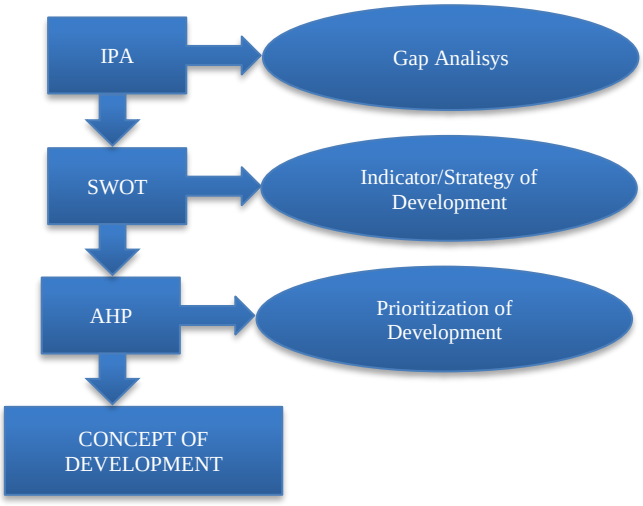

Fig. 5 Research framework

4. Results and Discussion

4.1. Sustainable Terminal Performance

Sustainable performance is an important concept in policy-making for a service[28]. IPA analysis displays information about service indicators that are believed to have a significant impact on stakeholder satisfaction[28, 29]. A review of the 37 indicators of Isimu terminal facilities is as follows:

4.1.1. Economy Aspects

Service performance based on the average value of performance and the importance of economic aspects is presented in Figure 6. The analysis shows that the performance value of economic aspects is greater than the average performance value (XY1 > $\bar{P}$), and the importance value is greater than the average importance value (XY1 > $\bar{I}$).

The performance value of indicators XY1.1, XY1.2, XY1.3, and XY1.4 is greater than the average performance value, the importance value of XY1.1, XY1.2, XY1.4 is greater than the average importance value, and XY1.3 is smaller than the average importance value.

Arrival and departure times (XY1.1) are in quadrant I with low performance and expectations; this condition is influenced by the lack of passenger boarding and alighting activities in the terminal; ticket sales counters (XY1.2) are in quadrant II with low performance and high expectations, office facilities (XY1.3) are in quadrant III with high performance and low expectations, terminal officers (XY1.4) are in quadrant IV are indicators that are considered important and are expected to be maintained.

The level of respondents' satisfaction with the economic aspect indicator is in the range of 61.92% - 64.95%, with an average of 64.80%, as presented in Figure 7.

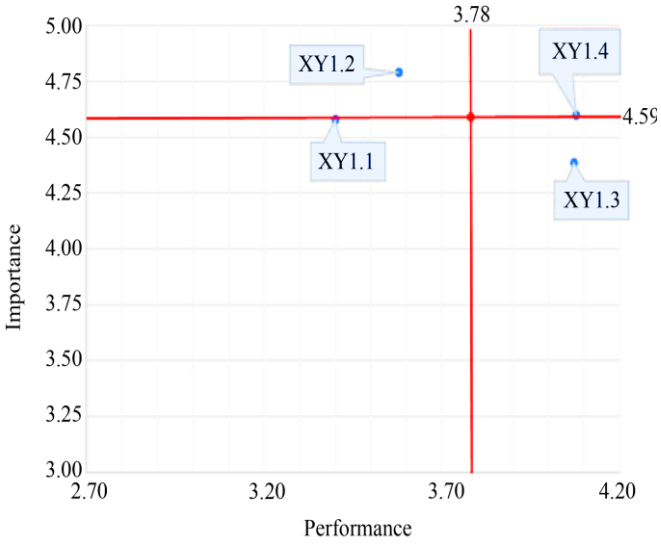

Fig. 6 Performance diagram of economic aspects

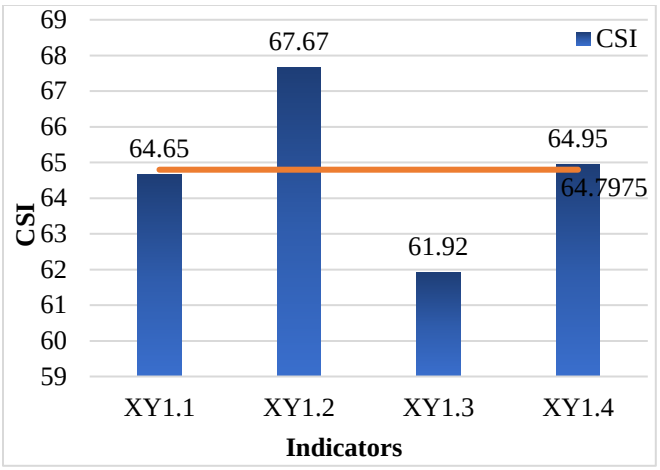

Fig. 7 CSI economic aspect

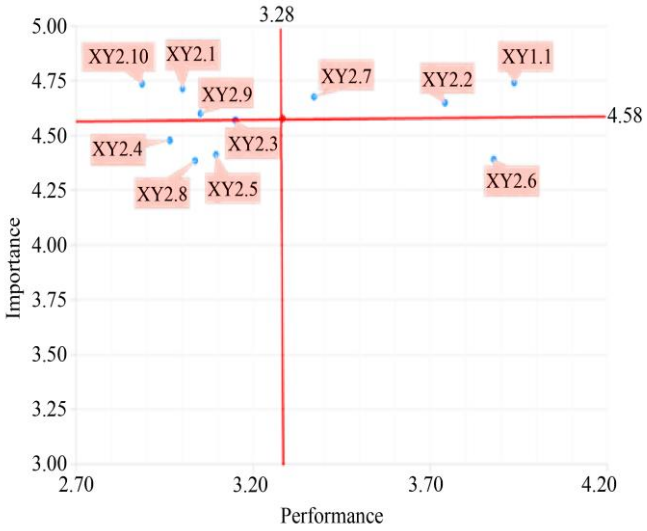

Fig. 8 Performance diagram of social aspect

4.1.2. Social Aspects

Service performance based on the average value of performance and the importance of social aspects is presented in Figure 8. The analysis results show that the performance values of XY2.1, XY2.3, XY2.4, XY2.5, XY2.8, XY2.9, XY2.10 are smaller than the average performance value (XY2 < $\bar{P}$), and the performance values of XY2.2, XY2.6, XY2.7, XY2.11 are greater than the average performance value (XY2 > $\bar{P}$). The importance scores of XY2.3, XY2.4, XY2.5, XY2.6 are less than the mean importance scores (XY2 < $\bar{I}$) and the importance scores of XY2.1, XY2.2, XY2.7, XY2.8, XY2.9, XY2.10, XY2.11 are greater than the mean importance scores (XY2 > $\bar{I}$). Advanced transportation modes (XY2.3), travel disruption information (XY2.4), luggage storage (XY2.5), and private vehicle parking (XY2.8) are in quadrant I, with low performance and expectations. Separate lane facilities (XY2.1), public vehicle parking lots (XY2.9), and facilities for the disabled and elderly are in quadrant II with low performance and high expectations. Battery charging facilities (XY2.6) are in quadrant III with high performance

and low expectations. Service information (XY2.2), boarding and alighting facilities (XY2.7), and special rooms for pregnant and lactating women (XY2.11) are in quadrant IV. The level of respondents' satisfaction with the social aspect indicator is in the range of 61.92% - 66.97%, with an average of 64.65%, as presented in Figure 9.

4.1.3. Environmental Aspects

Service performance based on the average value of performance and the importance of environmental aspects is presented in Figure 10. The performance values of XY3.1, XY3.2, XY3.3, XY3.4, XY3.5, XY3.6, XY3.7, XY3.8, XY3.12, XY3.13, XY3.15, XY3.17, XY3.20, XY3. 22, are less than the average performance value (XY3 < $\bar{P}$), and the performance values of XY3.9, XY3.10, XY3.11, XY3.14, XY3.16, XY3.18, XY3.19, XY3.21 are greater than the average performance value (XY2 > $\bar{P}$). The importance scores of XY3.4, XY3.6, XY3.7, XY3.8, XY3.9, XY3.10, XY3.11 are smaller than the average importance score (XY3 < $\bar{I}$) and the importance scores of XY3.1, XY3. 2, XY3.3, XY3.5, XY3.12, XY3.13, XY3.14, XY3.16, XY3.17, XY3.18, XY3.19, XY3.20, XY3.21, XY3.22 are greater than the mean importance score (XY3 > $\bar{I}$).

Evacuation route facilities (XY3.4), vehicle inspection officers (XY3.6), vehicle repair (XY3.7), information media (XY3.8), restaurants (XY3.16), reading rooms (XY3.21) are in quadrant I with low performance and expectations. Pedestrian path facilities (XY3.1), pedestrian safety paths (XY3.2), vehicle safety (XY3.3), fire lanes (XY3.5), and toilets (XY3.13) are in quadrant II with low performance but high expectations. Green open space (XY3.15), internet network (XY3.20) with low performance and expectations.

Security facilities (XY3.9), security-compliant media (XY3.10), security officers (XY3.11), waiting rooms (XY3.12), worship facilities (XY3.14), cleaning facilities, and officers (XY3.17). Drainage (XY3.19) (XY3.22) is in quadrant IV with high performance and expectations. The level of respondent satisfaction with the environmental aspect indicators is in the range of 50% - 69.08%, with an average of 64.02%, as presented in Figure 11.

Analysis of sustainability attributes based on the average value of indicators shows that the performance value of economic aspects is greater than the average performance value (XY1 > $\bar{P}$), and the importance value is greater than the average importance value (XY1 > $\bar{I}$). The performance and importance values of social aspects show that the performance value is greater than the average performance value (XY2 > $\bar{P}$), and the importance value is greater than the average importance value (XY2 > $\bar{I}$). The performance and importance values of environmental aspects are smaller than the average performance value (XY3 < $\bar{P}$) and the average importance (XY3 < $\bar{I}$).The average economic and social aspects are in quadrant IV with high performance and expectations, while the average environmental attributes are in quadrant I with low performance and expectation values. The terminal sustainability performance diagram based on the average attributes is presented in Figure 12.

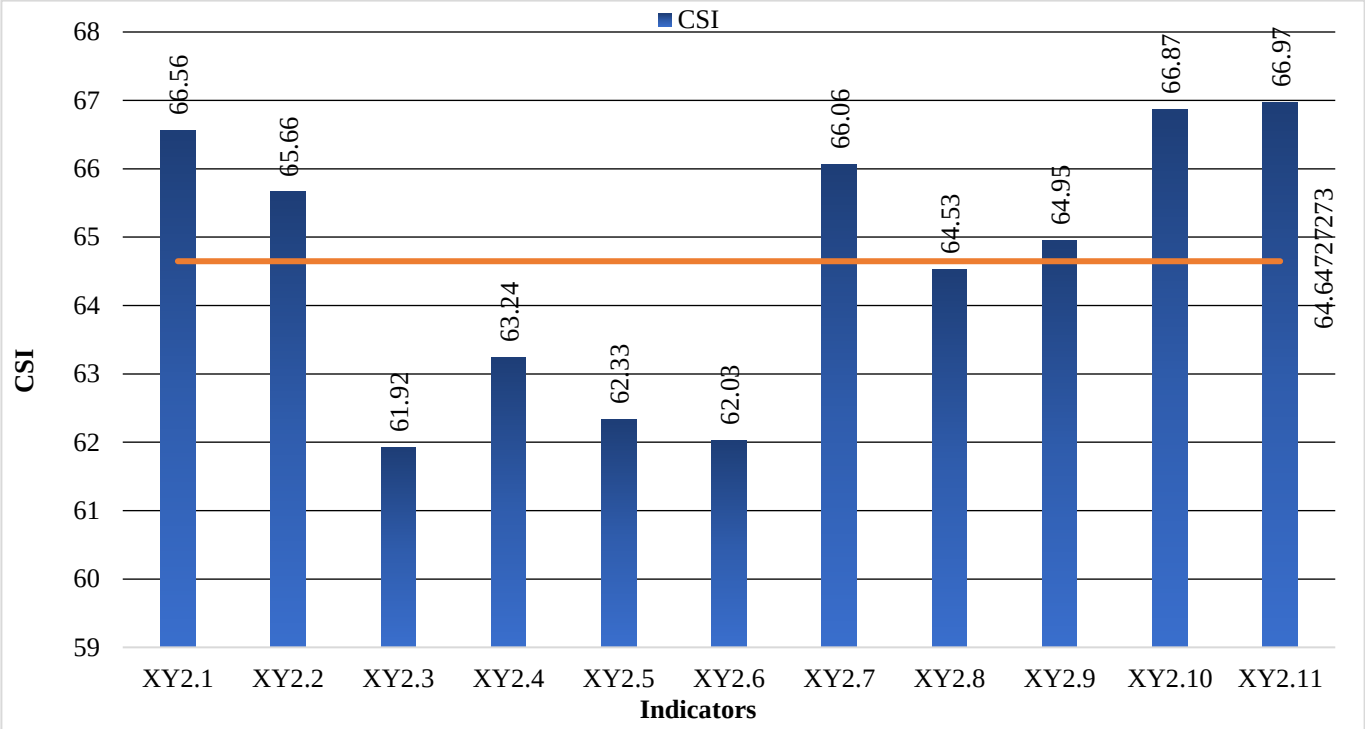

Fig. 9 CSI Social Aspect

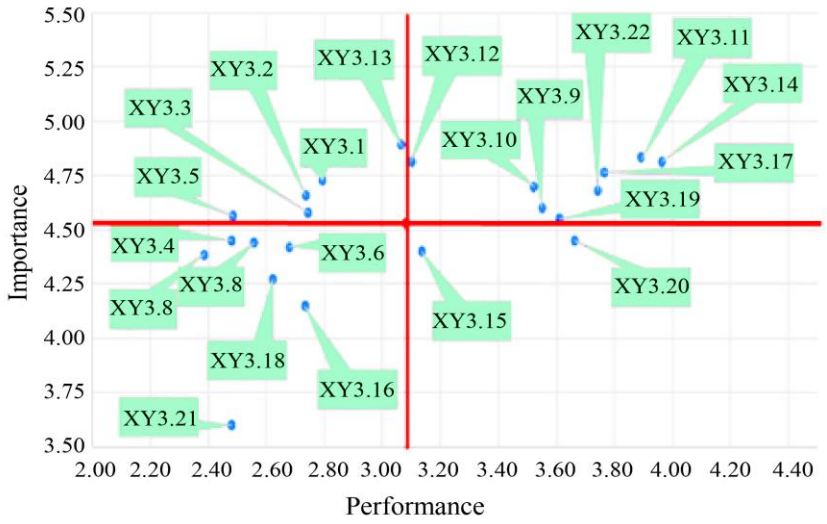

Fig. 10 Performance diagram of environmental aspects

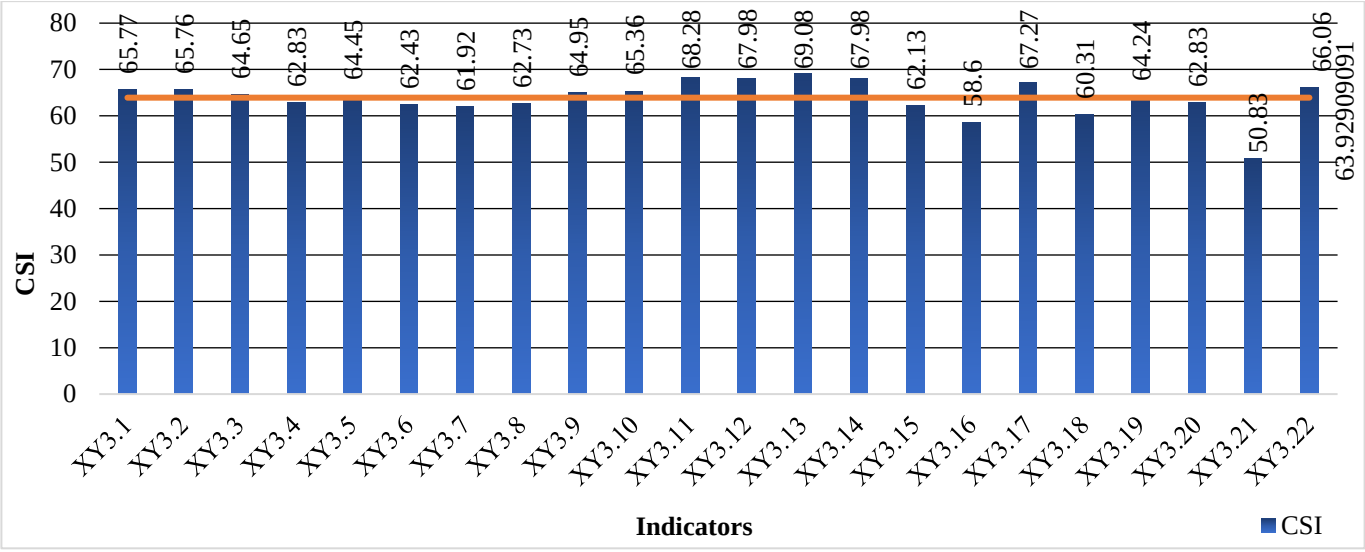

Fig. 11 CSI environmental aspect

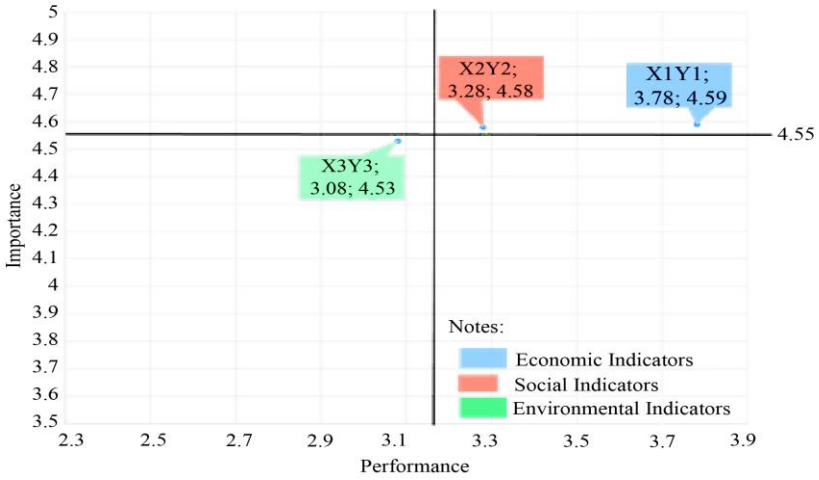

Fig. 12 Terminal sustainability performance diagram

Based on IPA analysis, service indicators in quadrant I have a low level of importance and satisfaction, or the attribute is below the average value of the level of service. Indicators included in this quadrant are not considered too important by stakeholders, so terminal managers do not need to carry out allocations for excessive investment for these indicators; stakeholder meetings and negotiations are needed to produce recommendations for activities. Quadrant II, contains attributes that have a high level of importance or above the average value, while the level of satisfaction is low. Indicators in this quadrant are considered the most influential because this indicator is considered very important, but the services provided are not satisfactory.

Therefore, it is necessary to evaluate and prioritize handling and improving services for these indicators. Quadrant III, contains indicators that have low importance but high terminal service performance. Service attributes that fall into this quadrant are considered excessive by stakeholders. It is necessary to monitor how the results and input of these indicators on terminal performance. *Quadrant IV*, the indicators in this quadrant, are considered to meet the quality of service at the level of importance and the level of stakeholder satisfaction or above the average level of service. Indicators in this quadrant must be maintained and anticipation of future needs is needed. The average CSI value of all aspects is 64.29%. This value is in the range of CSI index satisfaction level values of 50% - 69.99% in the category of less satisfied or less effective. That way, the value of the terminal performance attributes needs to be improved.

4.2. Development Policy and Strategy

Policy is a series of program plans, activities, actions, decisions, attitudes, or actions taken to solve the problems faced. To make a plan, external and internal factors need to be evaluated. Analysis of factors must result in the existence of strengths owned by an organization, as well as knowing the weaknesses contained in the organization. The analysis of external factors must be able to find out the opportunities that are open to the organization and can also find out the threats experienced by the organization[30]. To analyze more deeply about SWOT, it is necessary to look at external and internal factors as an important part of SWOT analysis, namely:

1. This external factor affects opportunities and threats (O and T), where this factor concerns public expectations of the terminal.
2. This internal factor affects the formation of strengths and weaknesses (S and W), where this factor concerns the performance of the terminal.

The SWOT matrix illustrates how external opportunities and threats are anticipated with its strengths and weaknesses. The SWOT matrix will make it easier to formulate various strategies. Basically, the alternative strategies taken must be directed at efforts to use strengths and improve weaknesses, take advantage of opportunities and overcome threats.

The identification results of both interviews with informants and field observations are categorized based on internal and external analysis, as described in Table 3 below. To get a real picture of how strategic steps are carried out over time, the policy direction dissects when the achievement indicators of each target must be achieved. So that the SWOT matrix will obtain four groups of alternative strategies called WT strategies, ST strategies, OW strategies, and SO strategies; the Isimu terminal sustainability development strategy can be seen in Figure 13 below.

Table 3. SWOT matrix

Internal	**STRENGTH** - Terminal as a node - transportation node - Adjacent to the Djalaludin airport and the location of the planned railway station - Availability of Development Land	**WEAKNESS** - Limited competence of human resources - Has not yet implemented the Internet of Thought system - Budgeting Limitations - Security Guarantee
External	**OPPORTUNITY** - Multimodal Transportation Hub - Government support - Unavailability of goods terminal in Gorontalo - Increased Economic Growth in the surrounding region	**TREAT** - Rental/Travel Transportation Offers Shuttle Facilities to passengers - Commitment with stakeholders

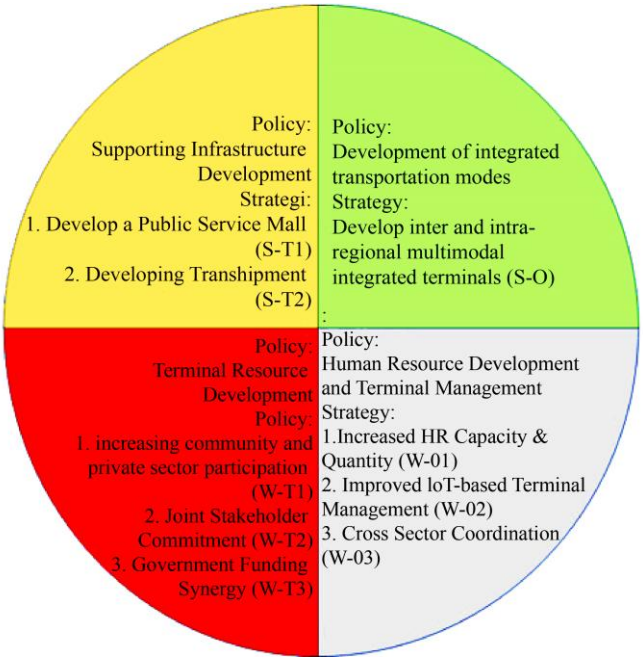

Fig. 13 Terminal development policies and strategies

Notes : T=Threats, W=Weakness, O=Opportunities, S=Strength

Table 4. Performance and Importance Scores

Attribute	Indicators	Performance		Importance		Quadrant			
		XY < P̄	XY > P̄	XY < Ī	XY > Ī	I	II	III	IV
Economy	XY1.1	3,40		4,58		✓			
	XY1.2	3,58			4,79		✓		
	XY1.3		4,07	4,39				✓	
	XY1.4		4,08		4,6				✓
Average (XY1)			3,78		4,59				✓
Social	XY2.1	3,00			4,71		✓		
	XY2.2		3,74		4,65				✓
	XY2.3	3,04		4,39		✓			
	XY2.4	2,96		4,48		✓			
	XY2.5	3,09		4,41		✓			
	XY2.6		3,88	4,39				✓	
	XY2.7		3,37		4,68				✓
	XY2.8	3,15			4,57	✓			
	XY2.9	3,05			4,6		✓		
	XY2.10	2,89			4,74	✓			
	XY2.11		3,94		4,74				✓
Average (XY2)			3,28		4,58				✓
Environmental	XY3.1	2,79			4,73		✓		
	XY3.2	2,74			4,66		✓		
	XY3.3	2,74			4,58		✓		
	XY3.4	2,48		4,45		✓			
	XY3.5	2,49			4,56		✓		
	XY3.6	2,68		4,42		✓			
	XY3.7	2,39		4,39		✓			
	XY3.8	2,56		4,44		✓			
	XY3.9		3.55		4,60				✓
	XY3.10		3,52		4,70				✓
	XY3.11		3,89		4,84				✓
	XY3.12		3,10		4,81				✓
	XY3.13	3,06			4,89		✓		
	XY3.14		3,96		4,81				✓
	XY3.15		3,14	4,40				✓	
	XY3.16	2,73		4,15		✓			
	XY3.17		3,76		4,76				✓
	XY3.18	2,62		4,27		✓			
	XY3.19		3,61		4,55				✓
	XY3.20		3,66	4,45				✓	
	XY3.21	2,48		3,60		✓			
	XY3.22		3,74		4,68				✓
Average (XY3)		**3,08**		**4,53**		✓			
∑ (XY)		**118,94**		**168,47**					
Average (XY)		**3,21**		**4,55**					

4.3. Policy and Strategy Concept

Isimu terminal development policies include developing a transportation network system, with the strategy of developing inter and intra-regional multimodal integrated terminals (S-T). Development and construction of terminal facilities and infrastructure with a strategy to improve services (S-T1), develop a goods terminal (S-T2), build a public service mall (S-T3), and develop a business center around the terminal (S-T4). Human resource development and terminal management policies with strategies to increase the capacity and quantity of human resources (W-O1), develop IoT-based terminal management (W-O2), and cross-sector coordination (W-O3). Terminal resource development policies with strategies to increase community and private participation (W-T1), joint stakeholder commitment (W-T2), and government funding synergy (W-T3).

5. Conclusion

The performance of the Isimu terminal based on sustainable aspects shows that the majority of indicators of social and environmental aspects are above the average importance and below the average performance, so this is an important note in the development action plan.

Terminal development policies and strategies,

- Development of transportation network system,
- Development and construction of terminal facilities and infrastructure,
- Development of human resources and terminal management,
- Development of terminal resources.

Policy and strategy implications can be a consideration for the follow-up development of the Isimu inter-regional terminal to be sustainable and can be a consideration for the development of transportation infrastructure in Gorontalo province.

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