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Implementation of Importance Performance Analysis Method for Passenger Service Performance at Bastiong Ferry Port, North Maluku Province

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A B S T R A C T

Quality of service in the transportation sector, particularly at ports, significantly influences passenger satisfaction. This study aims to implement the Importance Performance Analysis (IPA) method to evaluate passenger service performance at Bastiong Ferry Port in North Maluku Province. By utilizing IPA, this research will identify service attributes that need improvement and those that should be maintained to enhance passenger satisfaction.

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INTRODUCTION

Bastiong Port is a strategic point in the transportation system of North Maluku Province. High quality service can increase passenger satisfaction and encourage sustainable use of services. The IPA method is used to analyze the gap between passenger expectations and the actual performance of the services provided. This analysis provides recommendations for appropriate improvements, namely maintaining the availability of seats for passengers waiting for the ferry, facilities provided on each ferry fleet, simple and straightforward procedures, openness of staff to information requested by passengers (including ferry fares and operating hours), staff serving according to queue numbers, caring attitude of staff in receiving complaints related to information needs, staff serving without discrimination

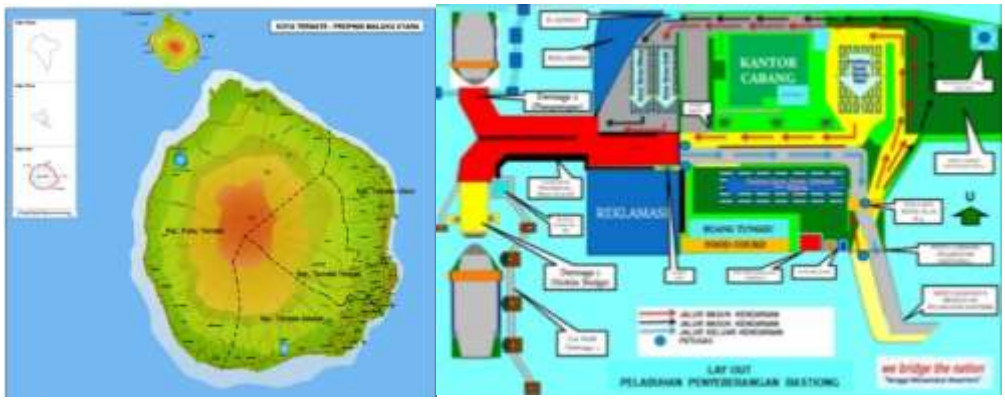

Figure 1. Location and layout of the research (Bastiong ferry port)

THEORETICAL REVIEW

Definition and Conceptual Frameworks

Service Quality Management (SQM): SQM involves ensuring that service delivery meets or exceeds customer expectations. It encompasses various conceptual frameworks, including but not limited to, the SERVQUAL model, developed by Parasuraman, Zeithaml, and Berry (1985)

This model identifies five primary dimensions of service quality:

a. Tangibles: Physical facilities, equipment, etc.
b. Reliability: Consistent delivery of promised services.
c. Responsiveness: Willingness to help customers promptly.
d. Assurance: Competence and courtesy of employees.
e. Empathy: Caring and personalized attention.

These dimensions form the core of service quality assessments and are widely recognized in the field.

Dimensions of Service Quality

Each dimension contributes uniquely to the overall service quality experience. For instance:

a. Tangibles directly relate to physical aspects like comfort of the waiting area (P2) and safety equipment (P4).

b. Reliability pertains to consistent procedures (P16) and staff's ability to use assistive tools (P17).
c. Responsiveness focuses on prompt responses to complaints (P6) and readiness of staff (P10).
d. Assurance emphasizes professional attitudes (P13) and friendliness of staff (P11).
e. Empathy highlights caring attitudes towards complaints (P23) and honesty in service provision (P21).

Understanding these dimensions is crucial for effective quadrant mapping and IPA analysis.

Measurement and Assessment Tools

Several tools are used to measure and assess service quality, including:

a. Surveys: To gather direct feedback from customers.
b. Interviews: To gain deeper insights into customer experiences.
c. Observation: Direct monitoring of service interactions.
d. Mystery Shopping: Anonymous evaluations of service encounters.

These methods help quantify gaps between expected and experienced service qualities, aiding in strategic improvements.

Best Practices and Strategies

Organizations often employ best practices such as:

a. Continuous Improvement: Regular audits and feedback loops to enhance service delivery.
b. Customer Relationship Management (CRM): Tailoring services to meet individual customer needs.
c. Employee Empowerment: Training staff to handle complex situations effectively.
d. Service Recovery: Addressing issues promptly to maintain customer trust.

By integrating these strategies, organizations can significantly boost their service quality scores and customer satisfaction levels.

Challenges and Emerging Trends

Service quality management faces evolving challenges due to:

a. Globalization: Adapting to diverse cultural norms and expectations.
b. Digital Transformation: Integrating AI and automation to streamline processes.
c. Changing Customer Preferences: Keeping pace with shifting demands and values.
d. Integration of Technology: Leveraging tools like QFD (Quality Function Deployment) to integrate service quality improvement tools with traditional evaluation metrics.

Addressing these challenges requires proactive adaptation and innovative problem-solving, ensuring sustained excellence in service delivery.

Application of theory in this article. The study uses quadrant mapping and IPA analysis to evaluate service attributes against passenger expectations. By categorizing attributes under the dimensions tangible, responsive, assured, reliable, and four dimensions of empathy, this is in line with the basic principles outlined by SERVQUAL and other leading service quality models. This framework provides a robust structure for analyzing and addressing gaps in service quality, thereby providing information for targeted improvements to increase passenger satisfaction and loyalty. As such, the methodology will be based on established theoretical foundations in service quality management, leveraging proven tools and strategies to provide actionable insights for service improvement.

METHODOLOGY

This study was conducted through the following steps:

1. Data Collection: Data was collected using questionnaires distributed to passengers. The questions covered various aspects of service such as cleanliness, speed of service, and staff attitude.
2. Data Analysis: The IPA formula was used to analyse the data to calculate the average importance and performance ratings for each service attribute.
3. Quadrant Mapping: The analysis results were mapped into a Cartesian diagram consisting of four quadrants:

Service Dimension	Code	Service Attribute
Tangible	P1	Digitalization devices in good condition (Physical evidence)
	P2	Comfort of the waiting area on the ferry
	P3	Availability of seating for passengers waiting for the ferry
	P4	Safety equipment on the ferry (Life Buoy/rescue buoy)
	P5	Facilities provided on each ferry fleet are adequate

Service Dimension	Code	Service Attribute
Responsiveness	P6	Speed of staff in responding to passenger complaints (Responsiveness)
	P7	Staff always ready to assist passenger needs
	P8	Staff provide the best solutions to public complaints about long queues
	P9	Patience of staff in serving passengers
	P10	Readiness of staff when serving passengers
Assurance	P11	Friendliness of staff when serving passengers (Assurance)
	P12	Departure and arrival times of ferries are always punctual
	P13	Professional attitude/skill of the captain in operating the ferry
	P14	Passengers feel safe when voicing complaints
	P15	Information provided by staff is easy to understand
Reliability	P16	Having clear service standards (Queue numbers are useful for managing passenger flow to the ferry) (Reliability)

Service Dimension	Code	Service Attribute
	P17	Staff's ability to use assistive tools in the service process
	P18	Procedures are simple and straightforward
	P19	Staff expertise in using assistive tools in the service process
	P20	Staff openness regarding information requested by passengers (including fares and ferry operating hours)
Empathy	P21	Honesty of staff in providing service (Empathy)
	P22	Staff serve according to queue numbers
	P23	Caring attitude of staff in receiving complaints regarding information needs
	P24	Staff serve without discrimination
	P25	Openness of ASDP Bastiong Ferry staff in receiving suggestions and criticisms

RESULTS

The analysis results indicated that several passenger service attributes fell into Quadrant I, such as Comfort of the waiting area on the ferry, Professional attitude/skill of the captain in operating the ferry, Information provided by staff is easy to understand, Having clear service standards (Queue numbers are useful for managing passenger flow to the ferry) (Reliability), Openness of ASDP Bastiong Ferry staff in receiving suggestions and criticisms. This suggests that while these attributes are considered very important by

passengers, their performance still requires enhancement. Conversely, attributes Availability of seating for passengers waiting for the ferry , Facilities provided on each ferry fleet are adequate , Procedures are simple and straightforward , Staff openness regarding information requested by passengers (including fares and ferry operating hours), Staff serve according to queue numbers , Caring attitude of staff in receiving complaints regarding information needs , Staff serve without discrimination , were located in Quadrant IV, indicating that these services are already performing well and should be maintained. The following the quadrant mapping results:

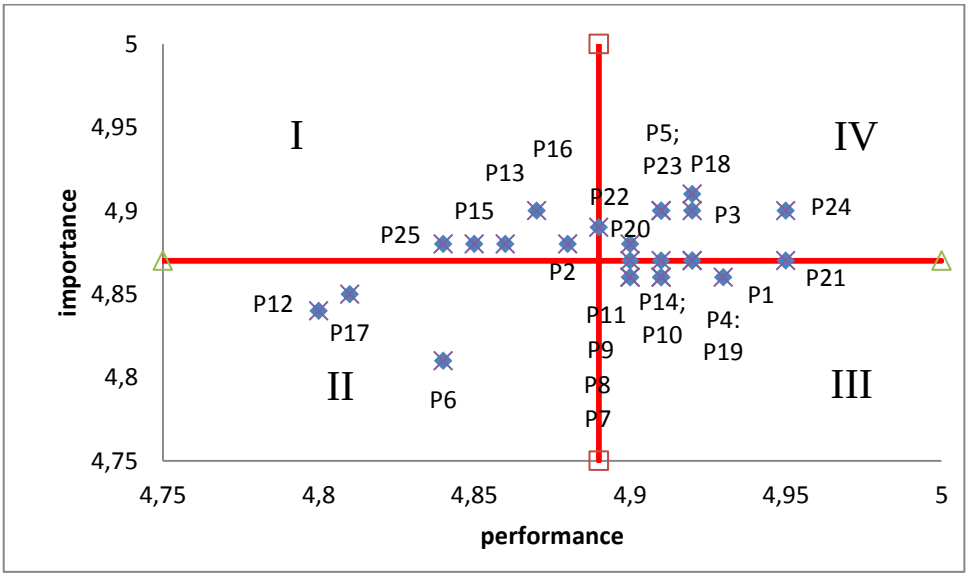

Figure 2. Kartesian Diagram

DISCUSSION

This study identified gaps between passenger expectations and actual performance for each service attribute. In this case, it was found that there were attributes that had high importance but low performance/low satisfaction identified as priorities for improvement, namely: speed of staff in responding to passenger complaints (responsiveness), departure and arrival times of ferries are always punctual, staff's ability to use assistive tools in the service process, this indicates the need for action to improve the reliability of these services. Another implication is that valuable information is obtained for targeted improvements aimed at increasing passenger/customer satisfaction and loyalty by understanding where the gaps occur, so that management can design specific strategies to improve service quality in accordance with customer expectations. This is in line with the finding that good service quality not only increases satisfaction but also fosters long-term customer loyalty. Overall, this framework offers a robust structure for analysing and addressing gaps in service quality, utilizing tools and strategies that have been proven effective in-service quality management.

CONCLUSIONS AND RECOMMENDATIONS

The IPA method has proven effective in identifying strengths and weaknesses in passenger service at Bastiong Ferry Port. Recommendations for improvement are focused on attributes in Quadrant I (Comfort of the waiting room on board, Captain's attitude/skill in operating the ship, Information provided by staff is easy to understand, Clear service standards in Quadrant IV (Queue numbers are useful for managing the flow of passengers to the ship) (Reliability), Openness of ASDP Bastiong Ferry staff in receiving suggestions and criticisms) to improve overall passenger satisfaction. With the implementation of these improvements, it is hoped that it can create a better travel experience for port users.

FURTHER STUDY

Expansion of the IPA Methodology

Future studies could explore the application of the Importance Performance Analysis (IPA) method in other ports within Indonesia or in different countries to compare service performance and passenger satisfaction levels. This could help identify best practices and benchmarks across diverse operational environments.

Longitudinal Studies

Conducting longitudinal studies would provide insights into how service performance changes over time, especially after implementing improvement recommendations. Tracking passenger satisfaction and service quality over multiple years could yield valuable data on the effectiveness of changes made.

Integration of Quantitative and Qualitative Data

Future research should consider integrating qualitative data from interviews or focus groups with quantitative survey results. This mixed-methods approach could provide a deeper understanding of passenger expectations and experiences, leading to more targeted improvements.

Broader Performance Metrics

Expanding the performance metrics beyond those identified in this study to include financial performance, environmental impact, and operational efficiency could provide a more holistic view of port performance. This could involve using frameworks like the Logistics Performance Index (LPI) to assess broader logistical capabilities.

Exploration of Technological Impacts

Investigating the impact of technology on service delivery at ferry ports, such as automated check-in systems or mobile applications for real-time updates, could be beneficial. This research could assess how technological advancements influence passenger satisfaction and operational efficiency.

Stakeholder Engagement

Future studies should involve various stakeholders, including port authorities, shipping companies, and local businesses, to understand their perspectives on service quality and performance. Engaging multiple stakeholders can lead to a more comprehensive analysis of port operations.

Focus on Sustainable Practices

Researching sustainable practices in port operations and their impact on service quality and passenger satisfaction is crucial. Understanding how environmental initiatives can enhance or detract from passenger experiences will be increasingly relevant in the context of global sustainability goals.

Comparative Analysis with Other Transportation Modes

A comparative analysis of ferry services with other transportation modes (e.g., air travel, bus services) in terms of service quality and passenger satisfaction could provide insights into competitive advantages and areas for improvement.

By addressing these areas in further studies, researchers can contribute to a more nuanced understanding of passenger service performance at ferry ports and enhance overall transportation quality in North Maluku Province and beyond.

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the quality of passenger services at Bastiong Ferry Port and serve as a reference for future research in the field.

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