Application of QFD in Service Quality Improvement: The Case of Pasar Malam Batubulan Services

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ABSTRACT

Dewi Sri Market, located at Batubulan Terminal, Sukawati District, Gianyar, Bali, is one of the island's tourist destinations, offering a unique shopping experience with diverse culinary choices, performances, clothing, and entertainment for children, commonly known as Pasar Malam Batubulan. This study aims to identify the attributes considered important by the public regarding Pasar Malam Batubulan, measure the levels of importance and satisfaction related to service quality, and formulate strategies to improve service quality. The analysis employs Quality Function Deployment (QFD), with variables derived from the five service quality dimensions: tangibles, reliability, responsiveness, assurance, and empathy. Based on the QFD analysis, the attribute with the highest importance value was the tangibles dimension, specifically toilet facilities (4.83), followed by vendor politeness (4.82), cleanliness and comfort of the market area (4.80), vendor friendliness (4.80), parking availability (4.79), and lighting quality (4.78). Other attributes that were rated highly included vendor product knowledge (4.68), service responsiveness (4.66), price-to-portion fairness (4.66), and market layout (4.64). However, satisfaction scores revealed a considerable gap, with salesperson friendliness receiving the highest score (4.05) and toilet facilities scoring the lowest (3.42), highlighting critical gaps in service quality. Based on respondent characteristics, the recommended strategies include introducing digital payment systems such as QRIS or digital wallets. Sustained capacity building for merchants, along with regular evaluations, is considered essential to measure the long-term impact of these initiatives and to assess their readiness for digital transformation. These findings underscore that enhancing basic facilities and adopting digital payment systems are strategic measures to improve customer satisfaction and align traditional markets with the evolving demands of the digital era.

Keywords: *Customer satisfaction, Pasar Malam Batubulan, Quality Function Deployment, Service quality*

BACKGROUND

A market serves as an economic platform that facilitates the production, distribution, and consumption of various goods and services to meet daily needs (Mahadipa et al., 2023). In Indonesia, night markets (Pasar Malam) are a highly popular commercial phenomenon, serving not only as shopping destinations but also as spaces for leisure and social interaction (Sunarni et al., 2023). These markets hold significant potential to strengthen the economy of local traders and communities by attracting large numbers of visitors, while also simplifying access to essential goods for residents. Furthermore, the generally affordable prices offered at night markets create a positive impact, particularly for lower-middle-income residents, by supporting community livelihoods and fostering economic inclusivity (Aswin, 2019).

Pasar Dewi Sri, commonly known as Pasar Malam Batubulan, is a vibrant destination located in Batubulan Terminal, Sukawati District, Gianyar, Bali. Operating exclusively in the evening, this night market offers a unique shopping experience with a lively and colorful atmosphere that attracts both locals and tourists. Visitors can indulge in the delights of authentic Balinese cuisine, such as *sate lilit* (minced meat satay) and *serombotan* (mixed vegetable salad with peanut sauce), which are central to its appeal. Beyond its food offering, the market serves as a bustling hub for affordable shopping, featuring vendors selling clothing, accessories, shoes, and sandals. By combining Balinese culinary richness, affordable retail options, and the energetic ambiance of a traditional night market, Pasar Malam Batubulan creates a memorable nighttime experience that reflects Bali's vibrant after-dark culture. In response to evolving trends in traditional and modern markets, the management of Pasar Malam Batubulan has sought to analyze community satisfaction as a foundation for developing strategies to enhance service quality. This initiative is intended to attract more visitors, stimulate local economic growth, and generate new employment opportunities, thereby ensuring the market remains a dynamic contributor to Bali's socio-economic landscape.

According to Saptaningtyas, (2017), Quality Function Deployment (QFD) is a method used to identify and translate customer desires into technical responses, with the ultimate goal of achieving customer satisfaction. This method facilitates necessary product improvements and developments by analyzing attributes that align with customer expectations (Dyana, 2020). A key advantage of QFD lies in its ability to enhance the product development process, resulting in focused and responsive outcomes, as it prioritizes customer-defined criteria and highlights critical attributes that require attention or refinement. The implementation stages of QFD include product quality assurance, customer evaluation, questionnaire design, customer surveys, checklist preparation, and matrix development (Sinawati & M, 2019). The matrix in QFD, referred as the House of Quality (HOQ), is a graphical technique that illustrates the relationship between customer needs and product features (Hairiyah et al., 2021).

A survey on service quality attributes at Pasar Malam Batubulan and its competitor was conducted with 100 respondents. The results indicated that customer satisfaction with Pasar Malam Batubulan generally fell within the categories of 'fairly satisfied' and 'satisfied' across all evaluated criteria. These data served as the basis for identifying key customer needs, which were subsequently translated into technical priorities using the Quality Function Deployment (QFD) framework. This

212

aligns with previous studies utilizing the QFD method, such as the research of Hairiyah et al., (2021), who examined strategic planning for improving customer service quality in the amplang industry through the application of QFD. Applying QFD to analyze visitor satisfaction at Pasar Malam Batubulan provided actionable insights for vendors, visitors, and local governments. This analysis contributed to strategies for improving service quality in areas such as cleanliness, vendor friendliness, product quality, and overall service delivery at Pasar Malam Batubulan, thereby fostering a more appealing and economically viable marketplace. Based on this context, this study tested the hypothesis that applying the Quality Function Deployment (QFD) framework could effectively identify the service attributes most valued by visitors and guide the formulation of targeted improvement strategies to enhance comfort and customer satisfaction at Pasar Malam Batubulan.

RESEARCH METHODS

This research was conducted at Pasar Malam Batubulan, Batubulan Village, Sukawati District, Gianyar Regency. Data analysis and calculations were carried out at the Industrial Engineering and Management Laboratory, Faculty of Agricultural Technology, Udayana University, between March and September 2024. The population and sample in this study relied on primary data obtained through in-depth interviews with the management of Pasar Malam Batubulan and questionnaires distributed to visitors of Pasar Malam Batubulan (Danuri & Maisaroh, 2019). Secondary data were collected from documents provided by the market management and supporting literature.

The population for this study consisted of consumers aged 16 to 50 years who had visited Pasar Malam Batubulan and Sukawati Night Market. The sample size was determined using the Slovin method with a 10% margin of error, resulting in a total of 100 respondents.

The stages of this research began with a preliminary survey, literature review, determination of the research location, and competitor identification. Subsequent steps involved identifying attributes and designing a questionnaire. After drafting the questionnaire, validity and reliability tests were conducted (Rosita et al., 2021). Once the questionnaire was confirmed to be valid and reliable, it was distributed to Pasar Malam Batubulan visitors, targeting at least 30 respondents (Sugiyono, 2017). Following distribution, data analysis was carried out using the Quality Function Deployment (QFD) method) (Besterfield, 2019), which involved the following steps:

1. Identifying customer requirements
2. Developing a planning matrix (customer perceptions)
3. Determining technical requirements (responses or technical specifications)
4. Filling in the relationship matrix (determining the relationship between customer requirements and technical responses)
5. Adding technical correlation (hoq roof)
6. Conducting priority analysis & target determination

RESULT AND DISCUSSION

Respondent Characteristics

Understanding respondent characteristics is critical in this study to examine individual conditions and specific traits (Hanafiah et al., 2020). The data analysis revealed a predominance of female respondents (61%) compared to male respondents (39%). This gender imbalance aligns with the findings of Putra & Santika, (2018), who highlighted that women generally exhibit a stronger inclination toward shopping activities. Hasya et al., (2023) further explained that shopping often serves as a therapeutic activity for women, helping stress reduction and mood enhancement. Additionally, such activities can stimulate dopamine production, a hormone associated with pleasure and satisfaction.

The age distribution of Pasar Malam Batubulan visitors was dominated by the 21–25 years old group (48%), reflecting their productive and socially active phase. The broader age range spanned 21–45 years, consistent with Mahadipa et al., (2023), who attributed the appeal of night markets across age groups to affordable prices and product diversity. Students constituted the largest occupational category (44%, or 33 respondents). In terms of visit frequency, 52% of respondents visited twice, while 48% visited more than twice, indicating trust and familiarity with the market, which aligns with the loyalty principles (Urfany & Muthohar, 2022). Overall, the typical visitor profile comprised females (61%) aged 21–25, predominantly students, with an average visit frequency of two, providing critical insights for enhancing service quality strategies at Pasar Malam Batubulan.

Validity and Reliability Testing

Validity and reliability testing was conducted using a questionnaire comprising 11 variables, which were developed based on a literature review and discussions with the management of Pasar Malam Batubulan. Validity was measured by comparing the calculated r-value of each attribute with the tabulated r-value. An attribute was deemed valid if the calculated r-value exceeded the tabulated r-value at a 5% significance level with a sample of 30 respondents. The results of the validity test are presented in Table 1, showing that all 11 service quality attributes of Pasar Malam Batubulan were valid. Furthermore, the reliability test of the questionnaire yielded a Cronbach's Alpha value of 1.097, indicating that the questionnaire was reliable.

Table 1. Validity test results

No	Attribute	r-value (Calculated)	r-value (Table)	Note
1.	Clean and comfortable market area	0,737	0,36	Valid
2.	Adequate market lighting	0,870	0,36	Valid
3.	Availability of parking facilities	0,788	0,36	Valid
4.	Toilet facilities	0,680	0,36	Valid

Application of QFD in Service Quality Improvement (Yuarini et al., 2026)

No	Attribute	r-value (Calculated)	r-value (Table)	Note
5.	Market layout	0,788	0,36	Valid
6.	Merchants' knowledge of the products being sold	0,495	0,36	Valid
7.	Prices based on portion size	0,542	0,36	Valid
8.	Polite customer responses	0,409	0,36	Valid
9.	Polite service from merchants	0,775	0,36	Valid
10.	Merchants' understanding of customer needs	0,493	0,36	Valid
11.	Merchants' friendly attitude toward customers	0,803	0,36	Valid

Source: Primary Data Analysis

Reliability Test Results of the Pasar Malam Batubulan Variable are shown in Table 2. A questionnaire is considered reliable if the reliability coefficient (Cronbach's Alpha) exceeds 0.60 (Setiawan, 2017). Similar results were also reported by Kurniawan et al., (2022), who found that Cronbach's Alpha values for the location and service quality variables exceeded 0.60 (even exceeding 0.90), confirming the reliability of the instrument (internal consistency). A high Cronbach's Alpha value (>0.90) indicates that the questionnaire can measure variables with very good consistency.

Table 2. Reliability Test Results of the Pasar Malam Batubulan Variable

Reference value	Reliability Value Results Cronbach Alpha	Conclusion
0.70	1.097	Reliable

Source: Primary Data Analysis

Analysis of Consumer Value and Level of Importance

Consumer importance serves as a guide for the management of Pasar Malam Batubulan to ensure customer satisfaction by aligning services with consumer preferences. Establishing a hierarchy of priorities for desired service attributes was critical, as reflected in Table 3, which outlines the importance levels assigned by consumers to service quality at Pasar Malam Batubulan. The tangibles attribute, specifically toilet facilities, received the highest score of 4.83, indicating that toilet availability was the most crucial factor for customers. This was followed by the assurance attribute (polite vendor service, 4.83) and the tangibles attribute (clean and comfortable market area, 4.80). The emphasis on toilet facilities aligns with the findings of Sinawati & M, (2019) who highlighted the necessity of adequate sanitation in public spaces such as restaurants, hotels, prayer rooms (mushola), and markets. These findings underscore the need for Pasar Malam Batubulan management to prioritize infrastructure improvements, vendor training in customer service, and consistent cleanliness to meet visitor expectations and enhance overall satisfaction.

Application of QFD in Service Quality Improvement (Yuarini et al., 2026)

Table 3. The Values and Levels of Importance Assigned by Consumers

No	Attribute	Customer Importance Score	Customer Importance Level	Criteria
1.	Clean and comfortable market area	*4,8*	96	Very Important
2.	Adequate market lighting	4,78	95,6	Very Important
3.	Availability of parking facilities	4,79	95,8	Very Important
4.	Availability of toilet facilities	*4,83*	96,6	Very Important
5.	Functional market layout	4,64	92,8	Very Important
6.	Merchants' knowledge of the products being sold	4,68	93,6	Very Important
7.	Prices based on portion size	4,66	93,2	Very Important
8.	Merchants' responsiveness in giving service	4,67	93,4	Very Important
9.	Polite service from merchants	*4,82*	96,4	Very Important
10.	Merchants' understanding of customer needs	4,66	93,2	Very Important
11.	Merchants' friendly attitude toward customers	*4,8*	96	Very Important

Source: Primary Data Analysis

Consumer Satisfaction Analysis and Planning Matrix

The analysis of customer satisfaction values, levels, and competitor performance represents an assessment of the extent to which the service quality of Pasar Malam Batubulan and its competitors met consumer expectations and desires.

First, Sukawati Art Market occupies an established position as one of the most renowned shopping destinations in Bali, particularly among both domestic and international tourists, making it a representative model of a successful market with a sustainable trading ecosystem. Second, Sukawati and Batubulan are located within the same administrative region, Gianyar Regency, thereby providing a balanced comparative framework in terms of demographics, cultural context, and consumer characteristics. Third, Sukawati has undergone more structured development in terms of market management, positioning it as a valuable reference for formulating strategies to enhance the competitiveness and governance of Pasar Malam Batubulan.

Table 4. The consumer value and satisfaction levels

No	Attribute	Batubulan Score	Batubulan Criteria	Sukawati Score	Sukawati Criteria
1.	Toilet facilities	3.42	Fairly Satisfied	4.05	Satisfied
2.	Polite service from merchants	4.05	Satisfied	4.27	Satisfied
3.	Clean and comfortable market area	3.79	Satisfied	4.21	Satisfied
4.	Merchants' friendly attitude toward customers	4.03	Satisfied	4.32	Satisfied
5.	Availability of parking facilities	3.83	Satisfied	4.22	Satisfied
6.	Adequate market lighting	3.85	Satisfied	4.19	Satisfied

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No	Attribute	Batubulan Score	Batubulan Criteria	Sukawati Score	Sukawati Criteria
7.	Merchants' knowledge of the produc being sold	4.01	Satisfied	4.19	Satisfied
8.	Merchants' responsiveness in givir service	3.94	Satisfied	4.23	Satisfied
9.	Merchants' understanding of custom needs	3.98	Satisfied	4.25	Satisfied
10.	Prices based on portion size	4.03	Satisfied	4.27	Satisfied
11.	Market layout	4.00	Satisfied	4.15	Satisfied

Source: Primary Data Analysis

This analysis aims to identify the attributes that should be improved or maintained by the management of Pasar Malam Batubulan in comparison with its competitors. The results are expected to provide useful input for market managers in supporting the development of service quality and enhancing customer satisfaction. The values and satisfaction levels of Pasar Malam Batubulan consumers, as well as those of its competitors, are presented in Table 4. Based on the data, consumer satisfaction with the service quality of Pasar Malam Batubulan was lower than that of its competitors. Moreover, the overall satisfaction criteria for Batubulan consumers were influenced by the relatively wide interval ranges applied in the classification of satisfaction levels, which may have affected the precision of the assessment. These findings indicate that Pasar Malam Batubulan should prioritize service quality improvements to strengthen its competitive position. In addition, refining the measurement scale for satisfaction is essential to ensure more accurate evaluations and to facilitate the design of targeted improvement programs, particularly in relation to the lowest-rated service indicators.

Determination of Improvement Ratio

The determination of improvement ratio is an analysis that aims to assess the extent to which the ratio of each service attribute needs to be enhanced. This ratio is particularly useful for evaluating the alignment between the service quality provided by Pasar Malam Batubulan and consumer satisfaction, as well as for establishing the priority of consumer needs and expectations. The improvement ratio values for service attributes at Pasar Malam Batubulan are presented in Table 5.

As shown in Table 5, all service attributes recorded improvement ratios greater than 1. According to Alfiana et al., (2020), an improvement ratio exceeding 1 indicates that the services have not yet fully achieved the targeted level of consumer satisfaction. Among the attributes, toilet facilities displayed the highest improvement ratio (1.46), making it the top priority for service quality improvement. This finding highlights the urgency of addressing sanitation infrastructure as a fundamental component of customer comfort and satisfaction. Other attributes should be prioritized sequentially based on their respective improvement ratios to ensure a systematic enhancement of service quality.

Table 5. The improvement ratio values for Batubulan 's

No	Attribute	Customer Satisfaction Score	Target	Improvement Ratio	Priority
1	Toilet facilities	3.42	5	1.46	1
2	Polite service from merchants	4.05	5	1.23	11
3	Clean and comfortable market area	3.79	5	1.31	2
4	Merchants' friendly attitude toward customers	4.03	5	1.24	8
5	Availability of parking facilities	3.83	5	1.3	3
6	Adequate market lighting	3.85	5	1.29	4
7	Merchants' knowledge of the products being sold	4.01	5	1.24	9
8	Merchants' responsiveness in giving service	3.94	5	1.26	5
9	Merchants' understanding of customer needs	3.98	5	1.25	6
10	Prices based on portion size	4.03	5	1.24	10
11	Market layout	4.00	5	1.25	7

Source: Primary Data Analysis

Technical Parameter Design

Technical parameters, defined as measurable attributes that describe services in operational terms, are essential for optimizing organizational resources to meet consumer needs (Yuarini et al., 2015). For Pasar Malam Batubulan, these parameters were identified through management interviews, on-site observations, and collaborative discussions, resulting in ten key factors: strategic main road location, efficient market layout design, reliable electricity supply, accessible waste containers, adequate parking systems, well-maintained toilet facilities, an information/complaint center, security personnel, cleaning staff, and visible menu lists at each stall. Collectively, these parameters serve to enhance both operational efficiency and consumer satisfaction by addressing functional requirements (e.g., infrastructure, sanitation) and service quality (e.g., accessibility, transparency), ensuring Pasar Malam Batubulan remains competitive and visitor-centric.

Analysis of Correlation Between Technical Parameters and Consumer Importance Values (Correlation Matrix)

A correlation matrix is employed to map the relationships between consumer-valued attributes and technical parameters, aiming to assess the degree to which these parameters affect customer priorities.

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Table 6. Relationship between product attributes and technical parameters

Service Attributes	Importance Score	Main Road Market Location	Market Layout Determination	Electrical Power	Trash Containers	Parking Area and System	Toilet Building	Information and Complaint Section	Security Officers	Cleaning Officers	Menu Name Addition
Toilet facilities	4.83			■	□		■			■	
Polite service from merchants	4.82							□			
Clean and comfortable market area	4.80		■	■	■	■	□	△	■	■	
Merchants' friendly attitude toward customers	4.80							□			
Availability of parking facilities	4.79	■	■	□		■			■		
Adequate market lighting	4.78		■	■							
Merchants' knowledge of the products being sold	4.68	□									■
Merchants' responsiveness in giving service	4.67	□						□			
Merchants' understanding of customer needs	4.66	□						□			
Prices based on portion size	4.66	△									■
Market layout	4.64	■	■	■		■					

Source: Primary Data Analysis

For Pasar Malam Batubulan, this matrix was developed through collaborative brainstorming with market management, using symbols to denote relationship strength: (blank) no correlation with a value of 0; (∆) weak correlation with a value of 1; (□) moderate correlation with a value of score 5; and (■) strong correlation with a value of 10, as illustrated in Table 6. This framework enables Pasar Malam Batubulan to determine which technical parameters (e.g., toilet facilities, vendor politeness) most closely align with consumer priorities, thereby guiding resource allocation and strategic initiatives to improve service quality and enhance visitor satisfaction.

Correlation Analysis Between Technical Parameters (Trade-Off Matrix/Technical Responder Correlation)

The trade-off matrix was developed to analyze technical relationships and assess the degree of influence between processes at the Pasar Malam Batubulan. Positioned as the triangular section at the top of the House of Quality (HOQ) (Figure 1), this matrix was constructed through collaborative brainstorming sessions with Pasar Malam Batubulan management. Relationships are

219

represented by symbols: (++) for strong correlation, (+) for moderate correlation, and (-) for weak correlation. This tool systematically highlights priority areas where operational adjustments or resource allocation can improve service delivery and customer satisfaction.
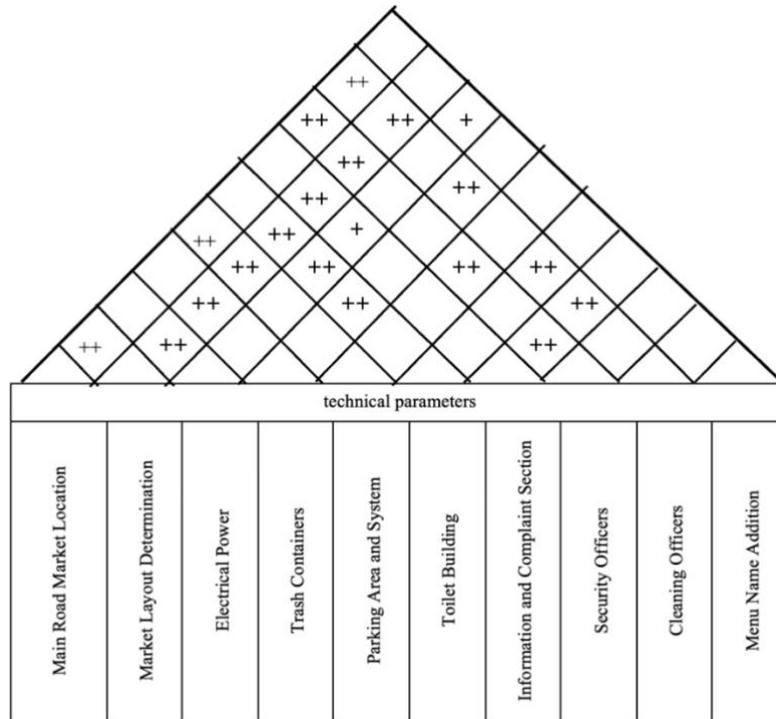

Figure 1. Relationship between technical parameters (Trade Off Matrix)
Source: Primary Data Analysis

Description:
Symbol ++: Strong positive
Symbol +: Positive

Figure 1 illustrates the relationships among technical parameters that form the "roof" of the HOQ. These correlations underscore the importance of an integrated approach, as improvements in one technical aspect may directly or indirectly affect multiple customer satisfaction attributes simultaneously. According to Saputra, (2024), prioritization is determined by summing the relationship values represented by symbols in the Relationship Matrix.

The market's location on the main highway shows a strong positive correlation with the determination of the market layout, the parking system and area, the presence of security officers, and cleaning staff. Its strategic position enhances accessibility, thereby requiring a layout that supports smooth visitor flow, well-organized parking arrangements supported by attendants and traffic signs, the presence of security personnel to manage surrounding traffic, and a structured waste collection schedule to maintain cleanliness and avoid disruptions to vehicle circulation.

The market layout parameter demonstrates a strong positive correlation with nearly all other technical parameters, including electrical power capacity, availability of waste containers, parking systems, toilet facilities, information and complaint desks, security personnel, and cleaning staff. Electrical power is strongly correlated with parking systems, toilet facilities, and information and

220

complaint desks, while showing a moderate positive correlation with the provision of menu lists at each kiosk to facilitate visitor decision-making. The availability of waste containers is strongly positively correlated with toilet facilities and cleaning staff, as the cleaning staff are responsible for maintaining container hygiene to prevent unpleasant odors and contamination. Parking areas and systems also exhibit a strong positive correlation with security personnel, while toilet facilities are strongly correlated with cleaning staff to ensure visitor comfort. Furthermore, the information and complaint section shows a strong positive correlation with both security personnel and cleaning staff, ensuring that security incidents and cleanliness issues are promptly addressed, thereby supporting a safe and hygienic market environment.

House of Quality (HOQ) Matrix and Strategy Formulation

The House of Quality (HOQ) matrix serves as a framework for aligning customer needs with organizational technical capabilities (Suhendar, 2014), integrating product attributes, company targets, improvement ratios, customer satisfaction measures, technical parameters, and both correlation and trade-off matrices.
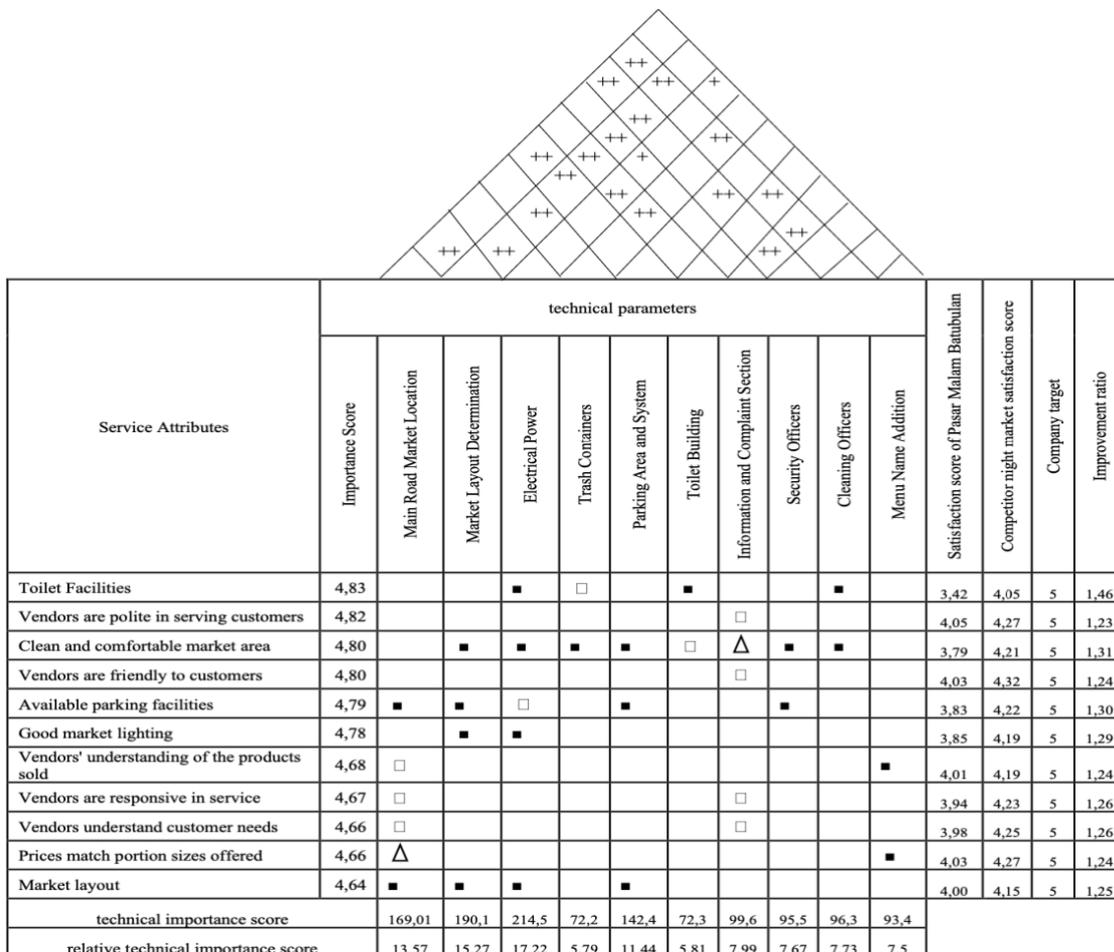

Figure 2. *House of Quality* (HOQ)
Source: Primary Data Analysis

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Description:
Symbol Δ: Weakly related to a value of 1
Symbol □: Moderately related with a value of 5
Symbol ■: Strongly associated with a value of 10
Symbol ++: Strong positive
Symbol +: Positive

As illustrated in Figure 2, the HOQ identifies toilet facilities as the highest-priority attribute for improvement at Pasar Malam Batubulan, reinforcing the findings of Widyanti, (2020), who emphasized the essential role of sanitation in shaping visitor satisfaction within public spaces. Based on the analysis of the relationship between the roof and body sections of the House of Quality in Figure 2, several technical parameters demonstrate strong positive correlation and mutually reinforce their impact on customer service attributes. The roof section functions as a matrix that depicts these interrelationships, where a strong positive correlation is represented by (++), a moderate correlation by (+), and no relationship by a blank cell. These correlations highlight the importance of an integrated approach in service quality improvement efforts, as enhancements in one technical parameter can directly or indirectly influence multiple aspects of customer satisfaction.

Based on the improvement ratio analysis, which prioritizes attributes according to their impact on consumers, identifies toilet facilities as the most urgent area requiring managerial intervention, followed by other service aspects, in order to close the gap between visitor expectations and current service delivery. This prioritization underscores the need to address fundamental infrastructure as a prerequisite for enhancing overall satisfaction and competitiveness at Pasar Malam Batubulan. In line with the HOQ analysis, service improvement strategies at Pasar Malam Batubulan should concentrate on three main aspects.

First, fulfilling consumer satisfaction involves improving priority attributes with an improvement ratio of ≥1.28, which include: (1) Toilet facilities, for which Batubulan Market management must improve cleanliness and sanitation by assigning dedicated cleaning staff to maintain toilet cleanliness on a regular basis and ensure the proper functioning of facilities such as clean water, lighting, and ventilation.; (2) clean and comfortable market areas, which can be supported by placing trash bins in strategic corners and educating visitors through announcement boards; (3) parking facilities, where management should provide clear vehicle flow signs for entry and exit routes and repair the parking surface to eliminate potholes; and (4) market lighting, which should be focused on toilets, dining areas, and parking lots to increase visitor comfort. Supporting attributes such as trader responsiveness, friendliness, and product knowledge also require gradual improvement. Enhancing service quality in these Quadrant I priority attributes, including toilet facilities, market cleanliness, vehicle safety assurance, and road and transportation access, is essential to meeting visitor expectations and strengthening agro-tourism business sustainability (Nurani et al., 2022). According to Astuti et al., (2022),, the three determinants of Jamu Cafe customer satisfaction are: (1) cleanliness and comfort (including clean toilets, adequate parking area, hygienic space, and product cleanliness), (2) affordable prices by product quality, and (3) strategic location that is easily accessible.

Second, fulfilling consumer priorities through technical parameters with a relative importance >12% involves: (a) Electrical power management, where Pasar Malam Batubulan management should monitor electricity usage by installing monitoring devices to track consumption in key areas such as toilets, parking lots, and stalls, while also ensuring efficient energy use during regular electrical inspections to prevent hazards such as leaks or short circuits. This aligns with Wantoro et al. (2021), who emphasized that routine monitoring and maintenance of electrical systems help identify distribution issues and prevent electrical failures; (b) Market layout optimization, which can be supported by providing digital/physical layout maps to help visitors navigate stalls, toilets, parking areas, and other facilities efficiently, reducing unnecessary walking distances and enhancing orientation). This is supported by Waluyo et al., (2024), who stated that clear layout information significantly improves consumer satisfaction and service quality; and (c) Strategic main road location, ensuring safe and accessible parking facilities that do not disrupt main road traffic. with organized parking systems, clear signage, and designated zones for two-wheeled and four-wheeled vehicles, alongside improving vendor services through product catalogs or price information boards and optimizing market layouts for visitor comfort). This resonates with Abshar et al., (2020) who highlight those markets located on busy main roads benefit from high visibility due to heavy vehicle and pedestrian traffic, increasing the likelihood of spontaneous visits. Furthermore, Kurniawan et al., (2022) found that service quality, including responsiveness, friendliness, and professionalism of staff, has a positive and significant influence on visiting interest, meaning that higher service quality increases consumer willingness to visit.

Third, the strategy to enhance service quality through the adoption of digital payment systems (QRIS/e-wallet) aims to accommodate the preferences of the dominant visitor demographic (women aged 21–30, students, and private sector employees) while aligning with the growing trend of digital transactions (Rizkiyah et al., 2021). Implementation will proceed in three structured phases: the Initial Stage (0–3 months) which focuses on establishing priority infrastructure, the Intermediate Stage (3–6 months) prioritizes technical optimization and user accessibility, and the Advanced Stage (6–12 months) ensures full integration of digital payments alongside periodic evaluations. Through this phased approach, Pasar malam Batubulan is projected to transform into a more competitive, comfortable, and youth-oriented destination that resonates with the evolving preferences of younger consumers.

The implications of this research for merchants lie in the formulation of strategies to improve service quality. The strategies developed through the House of Quality analysis aim to create a more competitive and sustainable night market, which can help increase customer visits and foster customer loyalty. For customers, service improvements made by market management, particularly in sanitation, cleanliness, parking, and lighting, will enhance comfort during visits, thereby increasing overall satisfaction. In addition, the adoption of digital payment systems aligns with the preferences of consumers in the digital era, offering a faster, safer, and more convenient transaction experience. The results of this study confirm that the application of the QFD framework is effective in identifying the service attributes most valued by visitors and in formulating targeted improvement strategies to enhance visitor satisfaction at Pasar Malam Batubulan.

CONCLUSION AND SUGGESTION

Based on the results of this study, it can be concluded that visitors to Pasar Malam Batubulan consider multiple service quality attributes as crucial for enhancing shopping comfort and overall satisfaction. Attributes that received the highest importance scores include toilet facilities (4.83), followed by vendor politeness and friendliness (4.82), cleanliness and comfort of the market area (4.80), friendliness of traders (4.80), availability of parking facilities (4.79), market lighting (4.78), traders' understanding of products (4.68), responsiveness in service (4.66), price-to-portion fairness (4.66), and market layout (4.64). Meanwhile, the highest satisfaction level was achieved for trader politeness (4.05), followed by price-to-portion fairness and trader friendliness (both 4.03), traders' product knowledge (4.01), market layout (4.00), service responsiveness (3.94), lighting (3.85), parking facilities (3.83), market cleanliness (3.79), and toilet facilities received the lowest satisfaction score (3.42). The discrepancies between the level of importance and satisfaction indicates the need for comprehensive service quality improvements. Strategic priorities for improving service quality include: (1) upgrading toilet facilities, cleanliness, parking, and lighting; (2) optimizing technical aspects such as electrical infrastructure, market layout, and strategic location along main routes; and (3) adopting digital payment systems (QRIS/e-wallet) through vendor training to facilitate transactions and enhance competitiveness. These strategies must be supported by continuous vendor capacity building and regular evaluations to assess their impact on customer satisfaction and long-term market competitiveness. With the implementation of these structured strategies, Pasar Malam Batubulan is expected to better meet the expectations of young consumers and strengthen its position as a comfortable, modern, and competitive destination.

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