Technema: Journal of Intelligent Engineering and Computing
Vol 1 No 2 June 2026, Hal 245-260
ISSN: 3163-6020 (Print) ISSN: 3163-5997 (Electronic)
Open Access: https://sovereignresearch.org/technema

Analysis of Customer Satisfaction and Priorities for Improving the Marketing Mix Using the Importance-Performance Analysis (IPA) Method and Potential Gain in Customer Value at Clauza Carwash

Gita Aubreza Safitri[1*], Andre Sugiyono[2]
[1-2] Universitas Islam Sultan Agung Semarang, Indonesia
email: 31602200004@std.unissula.ac.id[1]

Article Info :
Received:
15-06-2026
Revised:
24-06-2026
Accepted:
28-06-2026

Abstract

Competition in the vehicle-washing service industry requires businesses to continuously improve service quality to meet customer expectations. Clauza Carwash faces several customer concerns related to its marketing-mix attributes, which may affect customer retention and business competitiveness. This study aims to analyze the importance and performance of marketing-mix attributes and determine improvement priorities using the Importance-Performance Analysis (IPA) and Potential Gain in Customer Value (PGCV) methods. A quantitative approach was employed involving 100 respondents who completed a questionnaire covering 32 attributes based on the 7P marketing mix. Customer perceptions of service performance were assessed by comparing the importance and actual performance of each attribute. The IPA results identified 11 attributes as the main improvement priorities, particularly those related to product quality, price competitiveness, location visibility, employee performance, and service processes. The PGCV analysis further indicated that employee skills represented the highest improvement priority, with a PGCV value of 7.30, followed by price competitiveness, location visibility, material quality, and vehicle-shine performance. These findings indicate that the integration of IPA and PGCV can provide an objective basis for prioritizing service improvements according to customer perceptions. The results can support Clauza Carwash in developing targeted strategies to improve service quality, customer satisfaction, and competitive performance..

Keywords: *Customer Satisfaction, Importance-Performance Analysis, Marketing Mix 7P, Potential Gain in Customer Value, Service Quality.*

INTRODUCTION

Competition in the car wash service sector is increasing along with the growing number of motor vehicles in Indonesia, which has exceeded 172 million units and continues to increase annually (Badan Pusat Statistik, 2023). This growth in vehicle ownership expands the demand for vehicle maintenance services while simultaneously encouraging the emergence of more businesses offering similar services, making customer experience an increasingly important basis for differentiation. Customer satisfaction is a critical factor in maintaining customer loyalty because it reflects the extent to which the performance of a service corresponds to or exceeds customer expectations (Tjiptono & Diana, 2019). In an increasingly competitive service environment, businesses therefore need to manage not only the technical quality of their services but also the overall value perceived by customers. Previous studies have demonstrated that comparing customer expectations or importance with perceived performance can assist service providers in identifying attributes that do not adequately meet customer expectations (Hermanto et al., 2022; Vidyanto et al., 2023). Research in the car wash sector has also demonstrated that service quality dimensions such as tangibles, reliability, responsiveness, assurance, and empathy are relevant to customers' evaluations of service performance (Firdaus, 2024). These developments indicate that improving competitiveness in car wash businesses requires an evaluation framework that connects service performance with broader marketing attributes rather than relying solely on general assessments of service quality.

In Gubug District, approximately 10 car wash businesses operate within a 2 km radius of Clauza Carwash, creating increasingly intense competition among service providers and giving customers greater opportunities to compare prices, cleaning results, service speed, facilities, and employee responsiveness. Based on field observations and customer reviews on *Google Maps*, several complaints

were identified regarding marketing mix attributes, including a relatively high price with 15 complaints, insufficiently clean washing results with 10 complaints, poor business-location visibility with 7 complaints, uncomfortable waiting facilities with 5 complaints, relatively long service time with 4 complaints, low employee responsiveness with 3 complaints, and promotional activities that do not fully correspond to customer needs with 3 complaints. In addition, Clauza Carwash charges IDR 55,000 per service, which is higher than several competitors offering prices of approximately IDR 40,000–50,000, creating a potential discrepancy between the price paid and the value perceived by customers. This condition becomes more critical because the number of vehicles using Clauza Carwash services decreased by 41.03% during May 2025–April 2026, indicating the need to evaluate whether the company's marketing attributes remain aligned with customer expectations. The marketing mix provides a broader analytical perspective because service businesses must manage not only the product and price but also place, promotion, people, process, and physical evidence as interconnected elements of customer value creation (Kotler & Armstrong, 2018; Kotler & Keller, 2016). Previous research has also demonstrated the relevance of marketing-mix analysis in improving service quality and optimizing marketing attributes, although its application has varied across educational services and MSMEs (Ambarwati et al., 2025; Sari et al., 2025). The empirical conditions at Clauza Carwash therefore indicate the need to identify which marketing attributes are genuinely important to customers and which require immediate managerial intervention rather than treating every complaint as an equally urgent problem.

Previous studies have demonstrated the broad applicability of *Importance Performance Analysis* (IPA) for evaluating the relationship between the importance and performance of service attributes, particularly because the method categorizes attributes into quadrants that indicate priorities for improvement, attributes that should be maintained, low-priority attributes, and attributes that may receive excessive attention (Athallah & Kraugusteeliana, 2022; Delima et al., 2025). The analytical value of IPA becomes stronger when combined with *Potential Gain in Customer Value* (PGCV), which enables researchers to rank attributes according to their potential to generate additional customer value and therefore provides a more specific basis for improvement decisions (Putri, 2023; Rahayu et al., 2022). Recent applications have extended IPA to service competitiveness and improvement strategy, including postal services, minimarkets, construction projects, and other service-related contexts, demonstrating its continuing relevance for managerial decision-making (Fauziah & Azizah, 2026; Utomo et al., 2026; Andreamara & Isradi, 2026). IPA has also been applied to different product and service contexts, such as hot-mix asphalt products and broiler feed markets, indicating that the method can accommodate diverse customer evaluation settings (Mantolas et al., 2025; Dudin et al., 2026). In tourism and hospitality-related services, customer satisfaction analysis similarly emphasizes the importance of identifying performance attributes that require managerial attention because service experiences are evaluated through multiple interconnected dimensions (Wulan, 2025). Research on fuel-station services further confirms that IPA can reveal discrepancies between what customers consider important and what service providers actually deliver, allowing improvement strategies to be directed toward customer experience (Zahra et al., 2026). These findings establish IPA and PGCV as potentially appropriate analytical instruments for Clauza Carwash, particularly because its existing complaints do not yet indicate which attributes should receive the highest priority from the customer's perspective.

Despite the extensive application of IPA and PGCV, important conceptual and empirical limitations remain in their application to car wash businesses. Much of the existing research evaluates service quality through SERVQUAL or sector-specific service attributes, while the simultaneous integration of the 7P marketing mix with IPA and PGCV in the car wash industry remains limited (Firdaus, 2024; Wahyudi et al., 2025). Studies applying IPA have generally been effective in identifying attributes characterized by high importance and relatively low performance, but the quadrant classification alone may not provide sufficiently precise rankings when several attributes occupy the same priority quadrant. Research using broader strategic approaches such as SWOT and QSPM can formulate alternative marketing strategies, but these methods do not directly quantify the gap between customer-perceived importance and actual performance for individual marketing attributes (Saputro et al., 2021). Similarly, studies of the marketing mix in education and MSMEs have confirmed the relevance of marketing-mix elements for improving organizational performance, yet these studies do not fully connect the 7P framework with customer-value-based prioritization in a car wash service

context (Ambarwati et al., 2025; Sari et al., 2025). This limitation is particularly relevant because car wash services possess distinctive characteristics involving visible service outcomes, employee–customer interaction, waiting time, physical facilities, price sensitivity, location accessibility, and service processes that jointly shape the customer experience. Consequently, an analytical framework is required that can translate customer perceptions of these interconnected attributes into concrete improvement priorities. Addressing this gap is important because managerial decisions based only on general complaints or service-quality dimensions may allocate resources to attributes that customers perceive as less important while overlooking attributes with greater potential to influence satisfaction.

The urgency of addressing this issue arises from the possibility that discrepancies between customer expectations and actual service performance can influence perceived value, repeat usage, and the ability of a service provider to retain customers in a highly competitive local market. Customer satisfaction is fundamentally associated with the comparison between expected and perceived service performance, meaning that attributes characterized by high importance but inadequate performance deserve greater managerial attention than attributes with low performance but limited importance to customers (Tjiptono & Diana, 2019). PGCV complements IPA by providing an additional basis for determining the potential increase in customer value associated with improving individual attributes, thereby supporting more targeted resource allocation (Putri, 2023; Rahayu et al., 2022). This combination becomes particularly valuable for businesses with limited resources because not all service and marketing attributes can be improved simultaneously, requiring management to prioritize interventions with the greatest potential contribution to customer value. At Clauza Carwash, the relatively high price, complaints regarding cleaning results, limited location visibility, waiting-room comfort, service duration, employee responsiveness, and promotional relevance indicate potential mismatches between the value offered by the company and the value perceived by customers. The present study is positioned at the intersection of service marketing, customer satisfaction analysis, and data-driven managerial decision-making by employing the 7P marketing mix as the attribute framework and integrating IPA and PGCV to transform customer perceptions into actionable improvement priorities. This positioning extends the application of customer-priority analysis beyond conventional service-quality evaluation toward a more comprehensive assessment of marketing-mix performance in the automotive service sector.

This study aims to analyze customer satisfaction at Clauza Carwash based on the importance and performance of the 7P marketing-mix attributes and to identify improvement priorities using the *Importance Performance Analysis* (IPA) and *Potential Gain in Customer Value* (PGCV) methods. The study specifically seeks to determine which marketing-mix attributes have not adequately fulfilled customer expectations and to establish an improvement sequence based on customers' perceptions of importance, performance, and potential value gain. Theoretically, this study contributes to customer satisfaction and service marketing literature by extending the application of the 7P marketing-mix framework to the car wash industry, a service context characterized by direct customer interaction and immediately observable service outcomes. Methodologically, the integration of IPA and PGCV provides an analytical approach that moves beyond identifying importance–performance gaps by establishing more specific priorities according to the potential improvement in customer value. Practically, the findings are expected to provide Clauza Carwash with an evidence-based basis for allocating improvement resources toward marketing attributes that require the greatest managerial attention. The resulting recommendations can support improvements in the company's marketing mix, enhance customer satisfaction, and strengthen its competitiveness against other car wash providers in Gubug District and surrounding areas.

RESEARCH METHODS

This study employed an empirical quantitative research design using Clauza Carwash in Gubug District, Grobogan Regency, as the research object, with the research architecture consisting of data collection, instrument testing, customer perception measurement, IPA analysis, PGCV analysis, and formulation of improvement recommendations. Primary data were collected through direct observation, interviews, and questionnaires distributed to Clauza Carwash customers, while secondary data were obtained from company documents, relevant literature, and previous studies. The study population comprised all customers of Clauza Carwash, and because the population size was unknown, the sample size was determined using the Lemeshow formula, resulting in 100 respondents to provide an adequate

basis for quantitative analysis. The research instrument used a five-point Likert scale to measure two dimensions for each attribute, namely customer importance and perceived performance, covering 32 attributes distributed across the seven elements of the marketing mix, namely product, price, place, promotion, people, process, and physical evidence, as presented in Table 1. The selection of the 7P framework follows the service-marketing perspective in which marketing elements extend beyond the traditional 4P to incorporate people, process, and physical evidence as important components of service delivery (Kotler & Armstrong, 2018). The empirical research process was organized sequentially from preliminary observation and identification of marketing-mix attributes, questionnaire development, respondent selection, questionnaire distribution, data collection, instrument testing, and subsequent customer-satisfaction analysis, as illustrated in Figure 1. This structure enables the study to connect field-level customer perceptions with systematic quantitative evaluation and ensures that the resulting improvement priorities are derived from measurable customer assessments rather than solely from managerial assumptions.

Table 1. Summary of the dataset and data preprocessing

Variable (7P)	Attribute	Code
Product	The car washing result is clean and satisfactory	A1
Product	The washing result makes the vehicle shiny	A2
Product	The service variations (complete wash, express wash) are adequate	A3
Product	The quality of materials used (soap, tire polish, water) is good	A4
Product	The vehicle does not experience any damage	A5
Price	The price is appropriate for the service quality	A6
Price	The price is competitive compared with other car washes	A7
Price	The price is appropriate for the service variation	A8
Place	The location is easily accessible	A9
Place	The business location is easy to see	A10
Place	The surrounding business environment is comfortable	A11
Promotion	Service information is easy to obtain	A12
Promotion	Attractive packages or discounts are available	A13
Promotion	The business is active on social media	A14
Promotion	Promotions are conducted regularly	A15
People	Employees are friendly and polite	A16
People	Employees work carefully	A17
People	Employees are responsive to customers	A18
People	Employees serve customers quickly	A19
People	Employees are capable of handling complaints	A20
People	Employees have good skills	A21
Process	Service time is fast	A22
Process	The queuing system is clear and orderly	A23
Process	Service time is consistent with the promised time	A24
Process	The washing process is performed consistently for every customer	A25
Process	The washing process is performed carefully on every part of the vehicle	A26
Physical Evidence	The waiting room is clean and free from unpleasant odors	A27
Physical Evidence	Tables and chairs in the waiting room are comfortable	A28
Physical Evidence	The equipment used supports washing quality	A29
Physical Evidence	The food and beverage consumption area is comfortable	A30
Physical Evidence	A comfortable prayer room is available	A31
Physical Evidence	A clean toilet facility is available	A32

The collected data were first subjected to data adequacy, validity, and reliability testing to verify that the questionnaire generated sufficiently consistent and appropriate measurements before the main analysis was performed. Instrument validity was assessed by examining whether each questionnaire item adequately represented the intended construct, while reliability was evaluated to determine the

consistency of responses across the measured attributes. After the instrument was confirmed to be suitable, the mean importance and performance scores for each attribute were calculated from the 100 respondents and used as the input for Importance Performance Analysis (IPA), which compares the relative importance of attributes with their perceived performance (Hermanto et al., 2022). The IPA results were plotted into four quadrants using the overall mean importance and performance as the intersection points, enabling the identification of attributes that require immediate improvement, attributes whose performance should be maintained, attributes with relatively low priority, and attributes whose performance may exceed customer expectations (Athallah & Kraugusteeliana, 2022). Attributes identified as improvement priorities through IPA were subsequently evaluated using Potential Gain in Customer Value (PGCV) to quantify and rank their potential contribution to increased customer value, allowing management to distinguish the most urgent improvement attributes when several attributes occupy the same IPA priority category (Putri, 2023). The resulting PGCV ranking was then compared with the IPA classification to establish a consolidated priority sequence, which served as the analytical basis for formulating recommendations for improving the 7P marketing mix at Clauza Carwash. The final evaluation therefore used customer importance, perceived performance, IPA quadrant position, and PGCV priority as the principal analytical indicators, providing a reproducible procedure for translating questionnaire responses into evidence-based marketing improvement strategies.

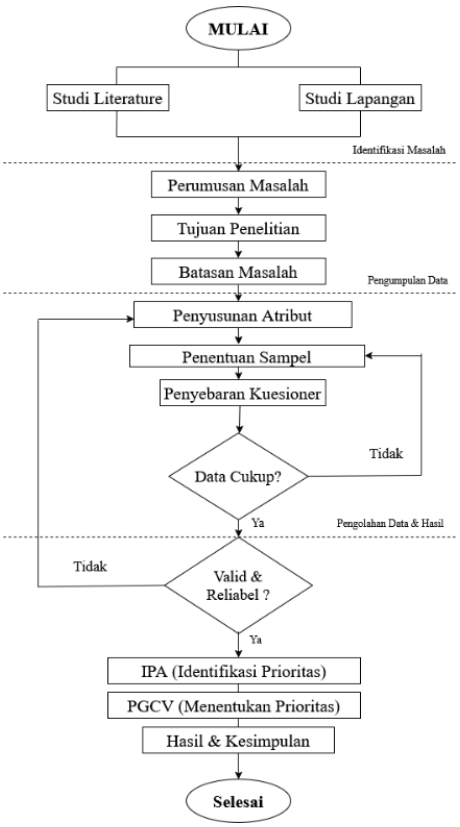

Figure 1. Research Process Diagram

Hypotheses

H_0: The performance of the marketing-mix attributes is adequately aligned with customer importance, such that no priority for improvement is required.

H_1: There are marketing-mix attributes whose performance is not adequately aligned with customer importance, such that improvement priorities are required.

RESULTS AND DISCUSSION

Instrument Testing and Data Adequacy

The empirical analysis began with data adequacy, validity, and reliability testing to ensure that the questionnaire responses obtained from 100 Clauza Carwash customers were appropriate for further

quantitative analysis. The questionnaire measured customer perceptions of importance and performance across 32 attributes representing the seven elements of the marketing mix, namely product, price, place, promotion, people, process, and physical evidence. The use of the 7P framework is consistent with the service-marketing perspective, which recognizes that service evaluation is influenced not only by the core offering and price but also by employees, service processes, and physical evidence (Kotler & Armstrong, 2018). Data adequacy testing confirmed that the number of observations was sufficient for the analytical requirements of the study. The sample of 100 respondents provided a consistent basis for calculating and comparing importance and performance scores across the measured attributes. The testing sequence was designed to minimize measurement uncertainty before the IPA and PGCV analyses were conducted.

Validity testing was performed by comparing the correlation value of each questionnaire item with the applicable r-table value. The results showed that all 32 questionnaire attributes had correlation values greater than the required r-table value, indicating that every item was valid and could be retained for subsequent analysis. This finding confirms that the indicators were sufficiently associated with the dimensions they were intended to measure and could represent customer perceptions of the Clauza Carwash service. Valid measurement is particularly important in IPA because an incorrectly measured attribute can alter its position within the Cartesian matrix and potentially produce an inappropriate improvement priority. Previous IPA research similarly emphasizes the importance of ensuring that measurement items appropriately capture customer importance and perceived performance before quadrant classification is conducted (Athallah & Kraugusteeliana, 2022). The validity results therefore support the use of the complete 32-attribute instrument in evaluating the marketing mix performance of Clauza Carwash.

Reliability testing was conducted using Cronbach's Alpha to determine the internal consistency of the questionnaire. The analysis produced a Cronbach's Alpha value greater than 0.60, indicating that the instrument met the minimum reliability criterion established for the study. The result demonstrates that the responses generated by the measurement items were sufficiently consistent and could be used as a quantitative basis for assessing customer perceptions. Reliability is important because IPA requires comparable measurements across attributes, while inconsistent responses may generate misleading differences between importance and performance scores. Customer-satisfaction measurement also requires consistent instruments because the evaluation of service attributes depends on the ability of the questionnaire to capture customer perceptions systematically (Tjiptono & Diana, 2019). The acceptable reliability result therefore confirms that the questionnaire was appropriate for the subsequent calculation of importance, performance, conformity level, and improvement priorities.

Table 1. Summary of the dataset and data preprocessing

Code	Attribute	Performance	Importance	TK %
A1	The car washing result is clean and satisfactory	4.21	4.24	99%
A2	The washing result makes the vehicle shiny	3.26	3.78	86%
A3	The service variations (complete wash, express wash) are adequate	3.16	3.16	100%
A4	The quality of materials used (soap, tire polish, water) is good	3.26	3.84	85%
A5	The vehicle does not experience any damage	3.89	3.90	100%
A6	The price is appropriate for the service quality	3.82	3.85	99%
A7	The price is competitive compared with other car washes	3.28	4.06	81%
A8	The price is appropriate for the service variation	3.92	3.94	99%
A9	The location is easily accessible	3.74	3.80	98%
A10	The business location is easy to see	3.30	4.02	82%
A11	The surrounding business environment is comfortable	3.35	3.57	94%
A12	Service information is easy to obtain	3.49	3.42	102%
A13	Attractive packages or discounts are available	3.54	4.36	81%
A14	The business is active on social media	3.45	3.60	96%

A15	Promotions are conducted regularly	3.49	3.56	98%
A16	Employees are friendly and polite	3.80	3.85	99%
A17	Employees work carefully	3.52	4.11	86%
A18	Employees are responsive to customers	3.85	3.87	99%
A19	Employees serve customers quickly	3.37	3.77	89%
A20	Employees are capable of handling complaints	3.76	3.77	100%
A21	Employees have good skills	3.16	3.97	80%
A22	Service time is fast	3.49	4.08	86%
A23	The queuing system is clear and orderly	3.87	3.88	100%
A24	Service time is consistent with the promised time	3.73	3.77	99%
A25	The washing process is performed consistently for every customer	3.54	3.93	90%
A26	The washing process is performed carefully on every part of the vehicle	3.53	3.99	88%
A27	The waiting room is clean and free from unpleasant odors	3.50	3.50	100%
A28	Tables and chairs in the waiting room are comfortable	3.55	3.63	98%
A29	The equipment used supports washing quality	3.55	3.58	99%
A30	The food and beverage consumption area is comfortable	3.65	3.57	102%
A31	A comfortable prayer room is available	3.85	3.28	117%
A32	A clean toilet facility is available	3.92	3.34	117%

Table 2 indicates that several attributes have substantial differences between performance and importance, particularly A7, A13, A21, A10, A4, A2, A22, A17, A26, A25, and A19. A7 has a performance score of 3.28 and an importance score of 4.06, while A13 has a performance score of 3.54 and an importance score of 4.36, with both attributes producing an 81% conformity level. These values indicate that customers attach considerable importance to competitive pricing and promotional packages, while their perceptions of the current performance of these attributes remain comparatively lower. The discrepancy between expected value and experienced performance is relevant to customer satisfaction because satisfaction is formed through comparison between customer expectations and the performance received from a service provider (Kotler & Keller, 2016). Conversely, A31 and A32 record conformity levels of 117%, indicating that perceived performance exceeds the importance assigned by customers to these supporting facilities. This contrast demonstrates why importance and performance need to be considered simultaneously rather than evaluating service quality solely from performance scores.

The preliminary results also indicate that the attributes requiring managerial attention are not necessarily those with the lowest performance scores alone. A21, for example, has a performance score of 3.16 and an importance score of 3.97, whereas A3 has an identical performance score of 3.16 but an importance score of only 3.16, producing a substantially different managerial implication. This distinction is consistent with the analytical principle of IPA, which prioritizes attributes according to the relationship between their importance and perceived performance rather than ranking performance independently (Hermanto et al., 2022). Attributes with high importance and relatively low performance require greater attention because improvements in these areas have stronger potential to influence customer perceptions of service value. The pattern observed in Table 2 also shows that the largest conformity gaps are concentrated in several elements of the 7P mix, particularly price, product quality, employee competence, visibility, and service speed. The next analysis therefore applies the IPA Cartesian matrix to classify the 32 attributes according to their relative importance and performance levels. This classification provides the empirical basis for identifying which attributes should be maintained, improved, monitored, or given lower managerial priority in the Clauza Carwash service system.

Importance–Performance Analysis (IPA)

The Importance–Performance Analysis (IPA) was applied to identify the relative position of each marketing-mix attribute based on customer-assigned importance and perceived service performance. The analysis used the mean importance and performance scores obtained from 100 respondents, with the intersection of the Cartesian diagram determined from the overall mean values of both dimensions. This approach enables attributes with high customer importance and inadequate performance to be distinguished from attributes that already perform according to customer expectations. IPA is widely used to translate customer evaluations into practical service-improvement priorities because it simultaneously considers the importance and performance dimensions of each attribute (Hermanto et al., 2022). The resulting classification is particularly relevant for service businesses because managerial resources can be directed toward attributes that generate the largest perceived gaps rather than distributed equally across all service components. The application of IPA at Clauza Carwash therefore provides an empirical framework for assessing whether the existing 7P marketing mix has achieved an appropriate balance between customer expectations and service delivery.

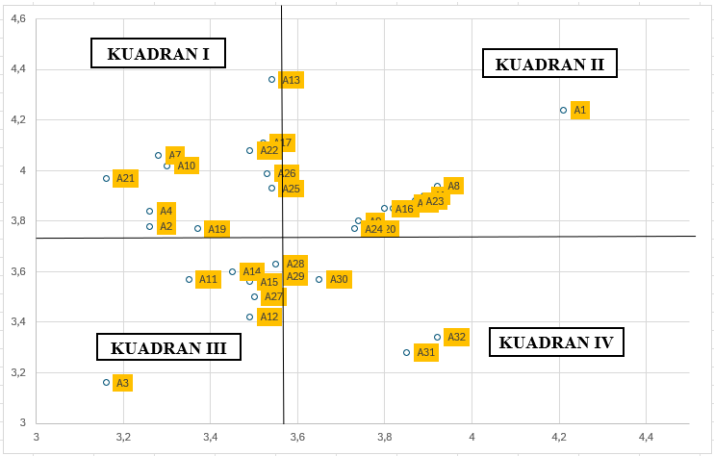

Figure 2. IPA Cartesian Diagram

The Cartesian diagram in Figure 2 shows that the 32 attributes are distributed across four IPA quadrants according to their respective importance and performance coordinates. Quadrant I represents attributes with high importance but relatively low performance, making these attributes the primary targets for improvement. Quadrant II contains attributes with high importance and satisfactory performance, indicating that the existing service delivery should be maintained because customers consider these attributes important and perceive their performance positively. Quadrant III consists of attributes with relatively low importance and low performance, while Quadrant IV contains attributes with relatively low importance but comparatively high performance. This classification follows the fundamental logic of IPA, in which the strategic meaning of an attribute depends on the interaction between its importance and performance rather than on either measurement independently (Athallah & Kraugusteeliana, 2022). The distribution of attributes across the four quadrants provides a more structured interpretation of customer evaluations than a simple ranking based on average performance.

The detailed classification of the 32 attributes is presented in Table 3, which shows that 11 attributes are positioned in Quadrant I and therefore require primary managerial attention. These attributes are A2, A4, A7, A10, A13, A17, A19, A21, A22, A25, and A26, covering product, price, place, promotion, people, and process dimensions of the 7P framework. The concentration of priority attributes across several marketing-mix dimensions indicates that customer dissatisfaction is not associated with a single operational component but reflects interconnected aspects of the service experience. Similar IPA-based studies demonstrate that attributes classified in Quadrant I represent areas where improvement can directly address discrepancies between customer expectations and perceived service delivery (Delima et al., 2025). The presence of A7 and A13 within this quadrant is particularly important because both attributes relate to perceived economic value, with customers assigning high importance to competitive prices and attractive service packages. The presence of A17,

A19, A21, A22, A25, and A26 also indicates that employee competence, service speed, consistency, and washing accuracy remain important determinants of the perceived quality of the carwash experience.

Table 3. IPA Quadrants

Code	Attribute	Quadrant
A1	Car washing results are clean and satisfactory	II
A2	Washing results make the vehicle shiny	I
A3	Service variations (complete wash, express wash) are adequate	III
A4	Quality of materials used (soap, tire polish, water) is good	I
A5	Vehicle does not experience any damage	II
A6	Price is appropriate for service quality	II
A7	Price is competitive compared with other places	I
A8	Price is appropriate for service variation	II
A9	Location is easily accessible	II
A10	Location is easy to see	I
A11	Surrounding business environment is comfortable	III
A12	Service information is easy to obtain	III
A13	Attractive packages or discounts are available	I
A14	Active on social media	III
A15	Promotions are conducted regularly	III
A16	Employees are friendly and polite	II
A17	Employees work carefully	I
A18	Employees are responsive to customers	II
A19	Employees serve customers quickly	I
A20	Employees are capable of handling complaints	II
A21	Employees have good skills	I
A22	Service time is fast	I
A23	Queuing system is clear and orderly	II
A24	Service time is consistent with promised time	II
A25	Washing process is performed consistently for every customer	I
A26	Washing process is performed carefully on every part of the vehicle	I
A27	Waiting room is clean and free from unpleasant odors	III
A28	Tables and chairs in waiting room are comfortable	III
A29	Equipment used supports washing quality	III
A30	Food and beverage consumption area is comfortable	IV
A31	Comfortable prayer room is available	IV
A32	Clean toilet facility is available	IV

The classification in Table 3 further shows that 11 attributes occupy Quadrant II, namely A1, A5, A6, A8, A9, A16, A18, A20, A23, and A24, indicating that these aspects are perceived as important and are currently delivered at a relatively satisfactory level. Attributes A1 and A5 are particularly significant because cleanliness of the washing result and protection of the customer's vehicle represent core service outcomes that directly affect trust in the carwash provider. The high positioning of employee-related attributes such as A16, A18, and A20 indicates that interpersonal interaction and responsiveness have been perceived positively despite several employee-related attributes remaining in Quadrant I. This difference suggests that Clauza Carwash has established acceptable standards for politeness, responsiveness, and complaint handling but still needs to improve technical competence, work accuracy, and service speed. The distinction is consistent with the service-marketing concept that customer evaluation involves both the outcome of the service and the manner in which the service is delivered (Kotler & Armstrong, 2018). Maintaining Quadrant II attributes is therefore important because deterioration in these areas could shift currently satisfactory attributes into priority-improvement positions.

Quadrant III contains A3, A11, A12, A14, A15, A27, A28, and A29, indicating relatively low importance and comparatively low performance, while A30, A31, and A32 are positioned in Quadrant IV because their performance exceeds their relative importance to customers. The Quadrant III results suggest that improvements to service variations, promotional activity, waiting-room facilities, and supporting equipment should not automatically receive the same resource allocation as attributes in Quadrant I. The Quadrant IV position of A31 and A32 is also noteworthy because the performance scores of these facilities exceed their corresponding importance levels, as reflected by conformity levels of 117% in Table 2. From a resource-allocation perspective, excessive investment in attributes that already perform above customer-assigned importance may provide less additional customer value than improving attributes with substantial performance deficits. This interpretation is consistent with recent IPA applications that use quadrant positioning to distinguish immediate improvement needs from attributes that can be maintained or managed with lower priority (Fauziah & Azizah, 2026). The IPA classification therefore establishes a clear hierarchy in which the 11 Quadrant I attributes become the principal candidates for further evaluation using PGCV.

The IPA findings demonstrate that customer satisfaction at Clauza Carwash is influenced by a combination of tangible service outcomes, pricing value, employee capability, accessibility, and process reliability. The strongest priority signals are represented by A21, A7, A10, A4, and A2, which respectively concern employee skills, price competitiveness, location visibility, material quality, and vehicle shine. These attributes have relatively low performance compared with their importance, indicating that improvements in operational capability and perceived service value may have a stronger effect on customer satisfaction than general expansion of supporting facilities. This finding corresponds with previous service research showing that IPA can identify specific attributes where performance gaps should be addressed before broader strategic improvements are implemented (Wahyudi et al., 2025). The result also reinforces the relevance of the 7P framework because the priority attributes span multiple dimensions rather than being concentrated solely in product or price. The PGCV analysis in the following section is therefore required to quantify the potential customer value associated with these differences and to establish a more precise sequence for improvement.

Potential Gain in Customer Value (PGCV)

The Potential Gain in Customer Value (PGCV) analysis was conducted to determine the priority sequence for improving the marketing-mix attributes identified through the Importance Performance Analysis (IPA). IPA identifies attributes that require attention based on the relationship between importance and performance, whereas PGCV provides a quantitative basis for ranking the potential customer value that can be obtained when an attribute is improved (Putri, 2023). The PGCV calculation in this study used the customer perception scores and generated Actual Customer Value (ACV), Ultimate Desired Customer Value (UDCV), and PGCV values for the 32 attributes. A higher PGCV value indicates a larger potential gain in customer value when the corresponding attribute is improved toward the desired performance level. The ranking is particularly useful for Clauza Carwash because several attributes are simultaneously classified as priority areas in the IPA matrix, requiring a more specific basis for allocating improvement resources. The calculated PGCV values and priority rankings are presented in Table 4.

Tavle 4. PGCV Ranking

Atribut	X	Y	ACV	UDCV	PGCV
A1	3,74	3,8	17,85	21,2	3,35
A2	3,3	4,02	12,32	18,9	6,58
A3	3,35	3,57	9,99	15,8	5,81
A4	3,49	3,42	12,52	19,2	6,68
A5	3,54	4,36	15,17	19,5	4,33
A6	3,45	3,6	14,71	19,25	4,54
A7	3,49	3,56	13,32	20,3	6,98
A8	3,8	3,85	15,44	19,7	4,26
A9	3,52	4,11	14,21	19	4,79
A10	3,85	3,87	13,27	20,1	6,83

A11	3,37	3,77	11,96	17,85	5,89
A12	3,76	3,77	11,94	17,1	5,16
A13	3,16	3,97	15,43	21,8	6,37
A14	3,49	4,08	12,42	18	5,58
A15	3,87	3,88	12,42	17,8	5,38
A16	3,73	3,77	14,63	19,25	4,62
A17	3,54	3,93	14,47	20,55	6,08
A18	3,53	3,99	14,90	19,35	4,45
A19	3,5	3,5	12,70	18,85	6,15
A20	3,55	3,63	14,18	18,85	4,67
A21	3,55	3,58	12,55	19,85	7,30
A22	3,65	3,57	14,24	20,4	6,16
A23	3,85	3,28	15,02	19,4	4,38
A24	3,92	3,34	14,06	18,85	4,79
A25	3,74	3,8	13,91	19,65	5,74
A26	3,3	4,02	14,08	19,95	5,87
A27	3,35	3,57	12,25	17,5	5,25
A28	3,49	3,42	12,89	18,15	5,26
A29	3,54	4,36	12,71	17,9	5,19
A30	3,45	3,6	13,03	17,85	4,82
A31	3,49	3,56	12,63	16,4	3,77
A32	3,8	3,85	13,09	16,7	3,61

The results in Table 4 show that A21, representing employee skills, has the highest PGCV value of 7.30 and occupies the first priority position. This result indicates that improving employee competence has the greatest potential to increase customer value compared with the other attributes evaluated in the study. The finding is consistent with the service-marketing perspective, in which employees represent an important component of service delivery because their competence directly affects the manner in which services are performed and experienced by customers (Kotler & Armstrong, 2018). The result also corresponds with the IPA classification, where A21 is located in Quadrant I, confirming that the attribute combines high customer importance with relatively weak perceived performance. The convergence of the two analytical methods strengthens the argument that employee capability represents a critical operational gap rather than an isolated statistical finding. Improving technical skills, work procedures, and service competencies can therefore influence both the consistency of car-washing activities and the perceived reliability of the service.

A7, concerning price competitiveness, occupies the second PGCV position with a value of 6.98, followed by A10 concerning location visibility with a value of 6.83 and A4 concerning the quality of materials with a value of 6.68. These four attributes demonstrate that customer value at Clauza Carwash is shaped by a combination of functional service quality, economic considerations, and physical accessibility. A7 and A10 are also positioned in Quadrant I of the IPA matrix, indicating that the high PGCV values are supported by a clear gap between customer expectations and perceived performance. A4 similarly appears in Quadrant I, while its PGCV value shows that improving the materials used during the washing process could generate a substantial increase in perceived service value. Previous research using IPA has also demonstrated that attributes with large discrepancies between importance and performance require greater managerial attention because service resources should be directed toward areas capable of producing meaningful improvements in customer satisfaction (Wahyudi et al., 2025). The ranking therefore provides a more differentiated priority structure than IPA alone because it distinguishes the relative improvement potential among attributes that require corrective action.

A2, which concerns the ability of the washing process to produce a shiny vehicle, ranks fifth with a PGCV value of 6.58, while A13 concerning attractive packages or discounts ranks sixth with a value of 6.37. A22 concerning service speed ranks seventh at 6.16, followed by A19 concerning employee service speed at 6.15, A17 concerning employee carefulness at 6.08, and A11 concerning the comfort of the surrounding business environment at 5.89. The concentration of these attributes within the upper portion of the ranking indicates that customers evaluate service value through both tangible outcomes and the efficiency of service delivery. A2, A13, A17, A19, and A22 are classified in Quadrant

I through the IPA analysis, providing additional evidence that their high PGCV positions reflect meaningful customer-perceived performance gaps. Similar patterns have been identified in service-quality studies where attributes related to responsiveness, tangible outcomes, and customer value frequently emerge as important improvement dimensions when performance does not adequately match customer expectations (Zahra et al., 2026). The PGCV ranking consequently indicates that improvements should not be limited to pricing strategies but should also encompass the technical execution and speed of service provided to customers.

The lower PGCV rankings provide an additional basis for determining which attributes do not require immediate allocation of improvement resources. A1, which concerns the cleanliness and satisfaction of the washing result, has a PGCV value of 3.35 and ranks 32, while A32 concerning toilet cleanliness ranks 31 with a value of 3.61 and A31 concerning the prayer room ranks 30 with a value of 3.77. These relatively low values suggest that the potential increase in customer value from further improvement in these attributes is smaller than that associated with the higher-ranked attributes. The finding is also consistent with the IPA classification, where A1 is located in Quadrant II and A31–A32 are located in Quadrant IV, indicating that their existing performance is relatively adequate compared with their importance levels. A high performance level does not necessarily imply that an attribute should receive additional investment because customer value gains depend on the remaining gap between current and desired conditions (Rahayu et al., 2022). Management can therefore maintain an acceptable standard for these facilities while directing incremental resources toward attributes with greater PGCV potential.

The combined interpretation of IPA and PGCV produces a more operationally meaningful priority structure for Clauza Carwash. IPA identifies 11 attributes in Quadrant I, while PGCV further differentiates these attributes according to their potential contribution to customer value, with A21, A7, A10, A4, and A2 occupying the five highest positions among the priority attributes. This convergence indicates that the most critical improvement areas are employee competence, price competitiveness, location visibility, material quality, and vehicle-shine performance. The use of PGCV following IPA is appropriate because customer satisfaction improvement requires not only identifying performance gaps but also determining which gaps have the greatest potential value when addressed (Putri, 2023). From a managerial perspective, the ranking supports a staged improvement strategy in which resources are initially directed toward the highest-ranked attributes before being allocated to attributes with lower potential gains. The resulting priority sequence provides an empirical foundation for formulating targeted recommendations that connect operational improvements with customer-perceived value and service competitiveness.

Hypothesis Testing and Discussion

The empirical findings indicate a measurable discrepancy between customer importance and perceived performance across several marketing-mix attributes at Clauza Carwash. The IPA analysis identified 11 attributes in Quadrant I, while the PGCV analysis established different levels of improvement potential among these attributes, with A21, A7, A10, A4, and A2 occupying the five highest priority positions. These findings support the research proposition that weaknesses in specific marketing-mix attributes remain relevant to customer satisfaction because attributes considered important by customers have not consistently achieved comparable performance levels. The rejection of the null hypothesis (H_0) and acceptance of the alternative hypothesis (H_1) therefore indicate that improvement is required in selected marketing-mix attributes to reduce the gap between customer expectations and perceived service performance. Customer satisfaction is conceptually associated with the comparison between expected service and the performance actually experienced, meaning that performance below customer expectations can generate dissatisfaction or weaken perceived value (Kotler & Keller, 2016). The statistical interpretation is strengthened by the convergence between IPA classification and PGCV ranking, since both approaches identify specific areas in which managerial intervention has the greatest relevance.

The first major finding concerns employee competence represented by A21, which obtained the highest PGCV value of 7.30 and was classified in Quadrant I. Customers assigned an importance score of 3.97 to this attribute, while its perceived performance score was only 3.16, producing a substantial performance gap. The result indicates that technical competence is not merely an internal operational factor but an observable component of service quality from the customer's perspective.

Employees with insufficient technical capability may produce inconsistent washing results, require longer processing times, and have difficulty responding appropriately to differences in vehicle conditions. The service-marketing framework emphasizes the role of people as an integral component of service delivery because employee behavior and competence directly influence the customer experience (Kotler & Armstrong, 2018). This finding is also consistent with the broader application of the extended marketing mix, where people, process, and physical evidence complement product, price, place, and promotion in representing the complete service offering (Ambarwati et al., 2025).

The second important finding concerns price competitiveness, represented by A7, which obtained a PGCV value of 6.98 and ranked second. The importance score of 4.06 compared with a performance score of 3.28 indicates that customers place considerable emphasis on competitive pricing, whereas the current price perception remains relatively weak. This condition suggests that customers may evaluate the carwash service not only according to the absolute price paid but also according to the perceived relationship between price and alternatives available in the surrounding market. The finding is relevant to customer value theory because perceived value emerges from the assessment of benefits received relative to the sacrifices made by customers, including monetary expenditure. A competitive pricing strategy should therefore be accompanied by clear differentiation in service quality so that price reductions do not undermine the perceived value of the service. Previous IPA-based marketing research similarly demonstrates that price-related attributes can become strategic priorities when their importance is high but customer-perceived performance remains below the expected level (Sari et al., 2025).

The third group of findings concerns the tangible and operational dimensions of the washing service, particularly A10, A4, and A2. A10, concerning business-location visibility, has a PGCV value of 6.83, while A4, concerning the quality of washing materials, has a PGCV value of 6.68, and A2, concerning vehicle shine, has a PGCV value of 6.58. The results demonstrate that customer value is influenced not only by interpersonal service but also by physical visibility and the technical quality of the service output. The low performance scores for A2 and A4 indicate that customers have not yet experienced washing results and material quality at a level consistent with their importance assessments. A10 also suggests that an easily accessible location may not provide maximum marketing value if potential customers cannot readily recognize the business from the surrounding road environment. Similar service studies applying IPA have shown that tangible service attributes and outcome-related characteristics can become priority areas when customers attach high importance to them but perceive insufficient performance (Firdaus, 2024).

The fourth finding relates to service speed and process consistency, particularly A17, A19, A22, A25, and A26. These attributes indicate that customers expect not only acceptable washing results but also careful, consistent, and timely service delivery. A22 has a PGCV value of 6.16 and ranks seventh, while A19 and A17 rank eighth and ninth, respectively, demonstrating that responsiveness and employee carefulness have substantial potential to improve customer value. A25 and A26, which represent consistency and carefulness in the washing process, occupy the 13th and 11th positions, respectively, and remain within Quadrant I of the IPA matrix. This pattern suggests that process quality is closely connected with employee capability because technical competence determines how consistently employees execute the washing procedure. Research on service-priority determination likewise indicates that performance gaps in operational processes can become important improvement targets when they directly affect the customer's experience of service reliability and responsiveness (Utomo et al., 2026). The findings reinforce the need to treat the carwashing process as an integrated service system rather than as a sequence of isolated activities.

The overall findings demonstrate that customer satisfaction at Clauza Carwash is influenced by an interaction among people, price, physical visibility, product quality, and service processes. The combined IPA and PGCV approach provides a stronger basis for managerial decision-making than relying on a single performance indicator because IPA establishes strategic positioning while PGCV quantifies the relative potential gain associated with improvement. The five highest-ranked attributes, namely A21, A7, A10, A4, and A2, therefore represent the most defensible initial targets for managerial intervention based on the available customer data. This result is consistent with previous studies applying IPA and PGCV, which demonstrate that combining performance mapping with customer-value prioritization can help organizations formulate more focused improvement strategies (Wahyudi et al., 2025). The findings also show that customer satisfaction improvement should not be interpreted

as an effort to maximize the performance of every attribute simultaneously, since resource allocation is more effective when directed toward attributes with high importance and substantial potential customer-value gains. The empirical evidence consequently supports H_1 and provides a quantitative basis for developing targeted improvement recommendations for Clauza Carwash.

CONCLUSION

The results of the analysis of the marketing mix at Clauza Carwash using Importance Performance Analysis (IPA) and Potential Gain in Customer Value (PGCV) indicate that customer perceptions vary across the 32 attributes of the 7P marketing mix. The IPA results show that several attributes have performance levels consistent with their importance and are therefore positioned in Quadrant II, while 11 attributes are classified in Quadrant I because their importance is high but their perceived performance remains below customer expectations. The 11 priority attributes are A2, A4, A7, A10, A13, A17, A19, A21, A22, A25, and A26, covering product quality, price, location, promotion, employee capability, service speed, and process consistency. The PGCV results provide a more specific priority sequence, with A21 (employee skills) obtaining the highest PGCV value of 7.30, followed by A7 (competitive price) at 6.98, A10 (location visibility) at 6.83, A4 (quality of washing materials) at 6.68, and A2 (vehicle-shine performance) at 6.58. These findings confirm that the main customer-value gaps are concentrated in employee competence, economic value, physical visibility, material quality, and the quality of the washing outcome. The results support the alternative hypothesis that improvements to selected marketing-mix attributes are required to reduce the gap between customer expectations and perceived service performance. The combined IPA and PGCV findings provide an empirical basis for prioritizing improvement resources according to customer importance and potential customer-value gains.

Clauza Carwash should initially focus its improvement efforts on the five highest-ranked PGCV attributes, particularly employee skills, through periodic training in vehicle-washing techniques, equipment operation, service standards, and systematic performance evaluation. The company should also review pricing by considering competitor prices and perceived service value while developing service packages, loyalty programs, or promotional offers that can strengthen customers' perception of price fairness. The visibility of the business location can be improved through a larger and more strategically positioned signboard, clearer directional signage, and regular maintenance of outdoor promotional media. Improvements to washing materials should include the selection of higher-quality soap, tire polish, and other supporting products, accompanied by routine evaluation of water quality and equipment conditions to maintain consistent washing outcomes. The quality of the final washing result, particularly vehicle shine, should also be improved through better finishing procedures and more appropriate vehicle-care products so that the service outcome corresponds more closely with customer expectations. Future research may incorporate complementary methods such as SERVQUAL, Customer Satisfaction Index (CSI), or AHP to provide broader measurement of service quality, satisfaction, and improvement priorities. Such methodological integration could strengthen the analytical basis for developing more comprehensive service and marketing strategies in the carwash industry.

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