Enhancing Consumer Loyalty and Market Competitiveness: Approaching IPA-QFD in Product Development

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Abstract

This paper provides an overview of AA.co.Store, is a fashion business founded in 2021. Despite being in the development stage, AA.co.Store can compete with other local brands in Sidoarjo. To maintain and attract more consumers, the company focuses on improving product quality. The success of a business is measured by the number of products produced and their competitiveness in the market. Product development is crucial to increase competitiveness and attract future consumers. The quality of the product and promotional activities significantly impact customer satisfaction. Pricing and distribution also influence purchasing decisions. To compete with competitors, AA.co.Store needs a comprehensive strategy. Research suggests that product quality, price, customer satisfaction, and brand image affect consumer loyalty and satisfaction. The purpose of this research is to improve AA.co.Store's product development using an IPA-QFD-based marketing mix aligned that very important for Development Goals (SDGs) of the store to compete with other local brands in Sidoarjo. The results of this study were AA.co.Store service quality, it can be concluded that Customer satisfaction with AA.co.Store services is fulfilled, which is indicated by the results of the questionnaire using the SERVQUAL method which does not show a negative value for the AA.co.Store brand when compared to other brands. There are three service quality attributes that need to be prioritised for improvement at AA.co.Store, namely the price of t-shirts that are more competitive than other brands, the condition of the parking lot, and cleanliness. There are several steps that can be taken to improve service quality based on technical needs, including: a.) changing the organisational strategy on company performance, especially in the operational section, b.) increasing the stock of materials to meet the number of orders, c.) providing training and development on existing SOPs, and d.) repairing and maintaining existing equipment in the company.

INTRODUCTION

The Coronavirus Disease, often known as the Covid-19 pandemic, struck every continent in 2019—including Indonesia. The World Health Organisation reports that the respiratory tract may be infected with the COVID-19 virus. To combat the virus's spread, the Indonesian government implemented laws imposing widespread social restrictions, which exacerbated the global and national economic crises. Consumer spending has declined as a direct consequence of the COVID-19 pandemic. (Sumarni, 2020). According to the Republic of Indonesia's Ministry of Finance, the COVID-19 pandemic in 2020 triggered deflation in the Indonesian economy. Organisations failed to pay salaries to workers due to the decrease in the currency, which led to widespread layoffs. Reports of a new strain of the COVID-19 virus have emerged, despite the fact that the virus had faded by 2022. Industry 4.0 is something that Indonesia is getting ready for. Despite the fact that the fourth industrial revolution is still in its infancy, Japan launched the idea of Society 5.0 at the beginning of 2019. Technology is an integral part of human existence in Society 5.0, used for both information sharing and improving people's day-to-day experiences. At regular intervals, human life evolves. Businesspeople, like everyone else, need to be nimble in order to keep up with the ever-changing environmental circumstances and

emerge victorious. (Anatan, 2022). The customer loyalty to a number of the major factors of establishing the competitive advantages of a company and developing the practical guidelines for managing the consumer loyalty. As a result of the study it has been found, that the consumer loyalty determines their commitment to the company and its products, which is developed while building the relationships between the company and its consumers (Chesnokova, 2024)

AA.co.Store is a fashion business that was founded in 2021 in Sidoarjo. they have products in the form of t-shirts, jackets, and hoodies with quality materials. although AA.co.Store is still developing, they can compete with other local brands in Sidoarjo. Tight competition in the fashion industry makes AA.co.Store continue to improve the quality of its products to maintain and attract more consumers. The success of a business can be seen from the number of products it produces, whether the product can compete well in the market or not (Nailuvary et al., 2020).   Product development is needed to increase the competitiveness of products in the market and can be accepted by consumers in the future. this includes new product innovation or improvement of existing products, with the aim of generating business opportunities and increasing profits. to expand market share and create business opportunities, a business must carry out a marketing mix strategy (Hayati et al., 2022). Marketing mix plays an important role in the sustainability of a business, including AA.co.Store (Dzikrulloh et al., 2022). Marketing mix includes 4 elements, namely product, price, place, and promotion, which are commonly referred to as the 4Ps (Wibowo et al., 2021).

Product quality and promotion can affect customer satisfaction. A product is considered quality if it can meet the needs and desires of buyers. By conducting promotions, it can help understand the product, its benefits, and information, thereby increasing consumer interest in buying or using the product. on the other hand, price and distribution also greatly influence purchasing decisions (Hanaysha et al., 2021). The right pricing will have an impact on interest and sustainable use of the product. Location and facilities are also important for easy access to buyers. thus, AA.co.Store needs to prepare a comprehensive strategy so that its products can compete with competitors. As in research conducted by Achmad Andy & Sumartik which shows that cutomer experience and brand image and trust have a significant effect buying interest (Achmad Andy & Sumartik, 2024). Research conducted by Rizal Ramadhan & Defrizal, shows that product quality, price, and promotion have a significant effect on buying decision (Ramadhan &Defrizal, 2023) and than Research conducted by Rahma et al, shows that, price have a significant effect on buying decision (Rahma, et al, 2024). Those research is used as a reference to develop AA.co.Store products to be better and more recognisable to the public.

Using an IPA-QFD-based marketing mix that is in line with the concepts of the Sustainable Development Goals (SDG) is going to help AA.co.Store enhance their product development. From the information provided, we can deduce that AA.co.Store's product development may be enhanced by including IPA-QFD into their marketing mix. Finding out which AA.co.Store product features are most crucial for development and which ones are most significant for customers is the issue statement for this study. The purpose of this research is to determine whether the IPA-CFD approach can be used to produce products for AA.co.Store. Achieving economic growth and sustainable development—that is, the necessity of minimising the ecological footprint by altering the way resources are produced and consumed—is the goal of this study, which comes under category 12 of the 17 SGDs, namely (responsible consumption and production). Hence, more study is

required to determine how the IPA-QFD approach contributes to the development of AA.co.Store qualities and the creation of high-quality items.

LITERATURE REVIEW
Product Development

Product development is the process of finding ideas for new goods and services and turning them into successful commercial products. this process is based on the assumption that customers want innovations in products that will help the company succeed.

Product development is an effort to find new ideas to improve or add variations to existing products and then market (Pinton & Prayogi, 2022). Product development means creating the same product but with better value and advantages than the previous version Ramadhan & Defrizal, 2023). Product development involves analysing market opportunities, production, and marketing to consumers (Nailuvary et al., 2020). The goal is to create new products or develop existing products.

Marketing Mix

Marketing mix is an effective marketing tool that must be controlled in an organisation to influence the reaction of its target market (Dzikrulloh et al., 2022). According to McCarthy, marketing success depends on managing four elements, namely: (product, price, place, promotion). product refers to the goods or services offered by the company which involves design, quality, features, and brand. price regulates the amount of money requested from customers in exchange for products or services that are influenced by production costs, market demand, competitor positions, and pricing strategies. place relates to the distribution of products or services distributed to the market, this includes distribution channels, channeling goods, warehousing, and supply chain management (Kotler & Amstrong, 2021). promotions involves marketing activities to increase customer awareness and encourage purchases which include advertising, direct selling, relational marketing, and other communication strategies (Rohmah K, 2020).

Product

Products are the result of company activities offered to the market to meet consumer needs and desires. products can be categorised into 3 types, namely: 1.) Durability and Shape, 2.) Consumer Goods, 3.) Industrial Goods. some important indicators of a product are Form is the size or physical structure of the product, feature is the product features that complement the basic functions of a product, customisation is the ability to adjust the product according to individual desires, performance quality is the degree of effectiveness of the main characteristics of the product. conformance quality is the level of fit between the product produced and the promised specifications, durability is an estimate of the operational life of a product under normal conditions or under stress, which can be an added value for certain products.

Price

Price is the amount of money or value exchanged by consumers to obtain the benefits of owning or using a product or service. It is important for a company in marketing to set an appropriate and fair price for the products or services offered because this is the key to creating and getting value from customers. There are four indicators that characterise price, namely price affordability is the ability of consumers to reach the price set by the company, price compatibility with product quality is the price is often used as an indicator of quality by consumers. so that consumers prefer higher product prices because they believe the quality is also better, price compatibility with benefits is the consumer assessment of whether the benefits obtained are comparable to the price paid, price according to ability or price competitiveness is the comparison of the price of a product with other products by consumers. In this context, the cheapness of a product is considered by consumers when buying the product.

Promotions

Promotion is a communication activity between buyers and sellers about products and services that aims to convince, persuade, and increase interest in these products and services, thereby influencing consumer attitudes and behaviour and encouraging exchanges in marketing. Promotion is measured through several indicators, namely advertising is a nonpersonal presentations and promotions paid for by sponsors to explain the idea of goods or services, sales promotion is a short-term incentives to encourage the purchase or sale of a product or service, personal selling is a personalised presentations by sales to generate sales and build customer relationships, public relations is a building good relationships with various companies to obtain favourable promotions and create a good corporate image, direct marketing is a direct contact with consumers to obtain responses and create a good relationship with consumers.

Place

Place is an important decision for companies in running their business. the placement of the right location can affect consumer decisions in making purchases or choosing which has an impact on the success of the product or service business [16]. There are several indicators that can be measured to determine the location, including access of the location must be easily accessible by public transport, parking space must be spacious, comfortable and safe, traffic should consider the density of people passing by, visibility the location must be clearly visible at normal viewing distances.

Importance Performance Analysis (IPA)

Importance Performance Analysis is an approach used to recognise the strengths and weaknesses of attributes in order to determine aspects of quality service that need to be improved (Yudha et al., 2022). There are several quadrants as follows quadrant I (concentrate here) contains attributes that are very important to clients but low performance, these attributes need to be improved as soon as possible, quadrant II (keep up the good work) contains attributes that are important to clients and their performance is high, these attributes must be maintained and improved, quadrant III (low priority) contains attributes with low significance and performance, these attributes do not require much development, quadrant IV (possible overkill) contains attributes that are less important to clients but high in performance, resources for these attributes should be redistributed to other attributes that require further development.

Quality Function Development (QFD)

Quality Function Deployment is a tool used to utilise technical techniques to meet customer expectations and needs (Magita & Khoiroh, 2023). QFD is a technique used to ensure product quality at every stage of manufacturing, starting from the quality planning itself (Caesaron, et al , 2021). The QFD process involves processing customer values to improve product or service design (Sukwadi, et al, 2021). QFD analysis involves several stages using the House of Quality (HOQ), including listening to the voice of the customer (VOC), establishing a priority order, establishing technical requirements, importance rating, relationship, correlation matrix, and competitive analysis and goal setting (Kürüm Varolgüneş et al., 2021).

METHODS

This research is quantitative research which uses numerical data and statistical analysis (Tjiptono, 2020). Data is collected directly from the first source, namely from respondents through questionnaires (Hikmawati, 2020). The questionnaire was given to 50 random respondents who had purchased products from AA.co.Store.

The dependent variable and the independent variable are the two components of this research. A dependent variable (bound) is a product of changes brought about by independent variables, often called independent variables (X). (Kriyantono, 2020). Independent variables in this study are Marketing Mix 4P (X). then there are dependent variables, commonly referred to as dependent variables, are variables that change or

are influenced as a result of independent variables (Sugiyono, 2021). in this study, the dependent variable is buyer satisfaction (Y).
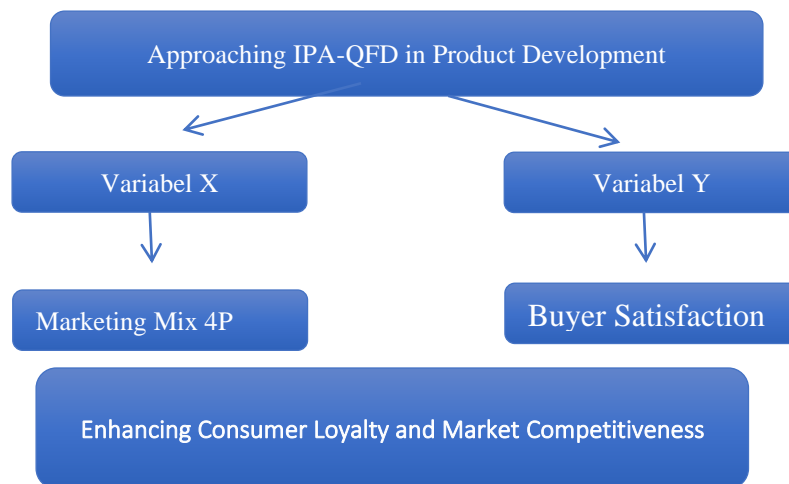

Figure 1. Relationship Between Variables
Source: Authors (2024)

Both non-probability and purposive sampling methods are used in the sampling process. One kind of sampling that doesn't provide every member of the population an equal chance of being chosen is non-probability sampling. On the other hand, purposive sampling is an approach to sampling that is tailored to certain goals or criteria. (Ramadhan & Defrizal, 2023). The sample in this study were AA.co.Store customers. Data measurement on aspects of gender, age, regional origin, expectations and reality.

The analytical tool used is SPSS to test validity and reliability, and the data analysis method uses Importance Performance Analysis (IPA) and Quality Function Deployment (FQD). IPA interpretation is classified into four quadrants, namely (Indrawidjajanto & Syairudin, 2021; Purbohastuti & Wahyuni, 2021; Hidayat & Sukmono, 2023):

1. Quadrant I (concentrate here): vital attributes with low performanceQuadrant II (keep up the good work): important attributes with high performance
2. Quadrant III (low priority): attributes with low significance and performance
3. Quadrant IV (possible overkill): less important attributes with high performance 4.

In this situation, the organisation needs to redistribute the resources allocated to attributes in a particular quadrant to other quadrants that require further development. QFD analysis is carried out using the House of Quality (HOQ) with the following stages (Kürüm Varolgüneş et al., 2021):

1. Voice of Customer (VOC): the project team meets with customer groups and understands their requests through surveys or in-person discussions.
2. Establishment of priority order: the desired expectations through suver are arranged using affinity and hierarchy diagrams
3. Establishment of technical requirements: at least one technical requirement is known for each customer request. Importance rating is calculated using AHP method
4. Relationship: the relationship between the technical requirements and customer needs is determined to show the effectiveness of each technical requirement
5. Correlation Matrix: used to determine whether technical requirements have a positive or negative relationship with each other.

6. Competitive Analysis and goal setting: all required data is entered into HOQ for further in-depth analysis.

RESULT AND DISCUSSION

Data Collection

There were 74 participants in this research, representing a mix of new and returning consumers of AA.co.Store, who were surveyed via a direct form of questionnaire distribution. The participants were categorised according to gender and age. Here are the characteristics of the responders broken down by category:

a) Characteristics of Respondents Based on Gender

It is found that for characteristics based on gender, the data obtained is the majority of male gender – 29 people (58%), while for female gender, there are 21 people (42%).

Table1. Respondents Based on Gender

Gender	Total	Percentage (%)
Male	29	58
Female	21	42

Source: Authors (2024)

b) Characteristics of Respondents Based on Age

It can be seen that in filling out the questionnaire based on the age of the majority of respondents at the age of 23 years with a total of 26 people (52%). Then for respondents aged 22 years there were 23 people (46%), while at the age of 24 years there were 1 person (2%).

Table 2. Respondents Based on Age

Age	Total	Percentage (%)
22	23	46
23	26	52
24	1	2

Source: Authors (2024)

Data Processing

Data processing starts from testing validity and reliability. Then after the data is declared sufficient and valid and reliable, then the data will be processed to calculate the gap value for each dimension such as tangible, reliability, responsiveness, assurance, and empathy. Then the results of the gap value will be used as a carteus diagram in IPA analysis to find out the lowest value in the priority dimension which will be made a priority for improvement using QFD analysis.

Validity Test

The validity test in this study was assisted using IBM SPSS Statistic software. The amount of data used is 50 data from the questionnaire results. If r count is positive, and r count> r table, then Ho is accepted (valid). If r count is positive, and r count < r table, then Ho is rejected (invalid). If r count is negative, and r count > r table, then Ho is rejected (invalid).

1. **Expected Parameters**

The validity test data obtained shows that 15 questions on the expectation parameter questionnaire for AA.co.Store MSMEs are valid> 0.195. This means that the data for AA.co.Store MSMEs can be used.

Table 3. Expected Parameters

Statement	R Count	R Table	Description
Product 1	.592	0.2787	Valid
Product 2	.588	0.2787	Valid
Product 3	.679	0.2787	Valid
Product 4	.612	0.2787	Valid
Product 5	.738	0.2787	Valid
Product 6	.745	0.2787	Valid
Product 7	.745	0.2787	Valid
Product 8	.478	0.2787	Valid
Product 9	.524	0.2787	Valid
Price 1	.709	0.2787	Valid
Place 1	.709	0.2787	Valid
Place 2	.739	0.2787	Valid
Promotions 1	.707	0.2787	Valid
Promotions 2	.679	0.2787	Valid
Promotions 3	.679	0.2787	Valid

Source: Authors (2024)

2. **Reability Parameters**

Reliability test results show that the Cronbach's alpha value is 0.774 > 0.6 or greater than 0.6, it can be concluded that the variables in the importance parameter are reliable. It is concluded that if the reliability test of all expectation parameters can be said to have a good level of reliability because it is in the range of 0.88 - 1.00. This means that the data obtained in this study can be relied on.

Table 4. Reality Parameters

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.924	.925	15

Source: Authors (2024)

3. Parameters of Importance

Reliability test results show that the Cronbach's alpha value is 0.924 > 0.6 or greater than 0.6, it can be concluded that the variables in the importance parameter are reliable. It is concluded that if the reliability test of all expectation parameters can be said to have a good level of reliability because it is in the range of 0.88 - 1.00. This means that the data obtained in this study can be relied on.

Table 5. Parameters of Importance

Reliability Statistics		
Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.774	.797	15

Source: Authors (2024)

Service Quality Calculation

In this study using Service Quality, the influence of dimensions on Servis quality to calculate the average score of the importance of perceptions and expectations through questionnaires distributed to consumers. Table 6 are the results of the service quality calculation.

the gap value is obtained by calculating the difference between the perceived value and the expected value, if the gap value has a negative value, the service dimension is still not good. These results indicate that AA.co.Store MSMEs still need to make improvements to their service quality. If the difference result is positive, it indicates that the service is good but can still be improved to maintain service quality. It can be seen that the GAP values or GAP differences are all positive so that it can be concluded that the service is good but can still be improved to maintain service quality.

Table 6. Service Quality Calculation

Statement	Reality	Expected	Gap
Product 1	3.6	3.18	0.42
Product 2	3.54	3.18	0.36
Product 3	3.64	3.2	0.44
Product 4	3.78	3.38	0.4
Product 5	3.86	3.48	0.38
Product 6	3.76	3.52	0.24
Product 7	3.9	3.52	0.38
Product 8	3.74	3.18	0.56
Product 9	3.58	3.16	0.42
Price 1	3.52	3.38	0.14
Place 1	3.54	3.38	0.16
Place 2	3.5	3.36	0.14
Promotions 1	3.58	3.18	0.4
Promotions 2	3.48	3.16	0.32
Promotions 3	3.66	3.16	0.5
Total	54.68	49.42	5.26

Source: Authors (2024)

Customes Satisfaction Index (CSI)

Needed to determine the overall level of customer satisfaction by paying attention to the level of importance of the product or service attributes in the form of a percentage of happy consumers in a customer satisfaction survey.

The result of the calculation is expressed as a service quality gap. The value 5 (at 5Y) is the maximum value used on the measurement scale. CSI is calculated by the formula:

$CSI = (T / 5Y) \; x \; 100\% = 180.3012/(5 \times 54,68)100=$

CSI = 65.95%

The results are concluded if the CSI value is> 50% to 80%, indicating that consumers are quite satisfied with the service performance. The CSI calculation results above obtained a value of 65.95% so it can be concluded that consumers are quite satisfied with service performance.

Table 7. Customer Satisfaction Index (CSI)

Items	Reality	Expected	Importance	CSI
Product 1	3.6	3.18	3.52	11.448
Product 2	3.54	3.18	3.52	11.2572
Product 3	3.64	3.2	3.6	11.648
Product 4	3.78	3.38	3.86	12.7764
Product 5	3.86	3.48	4.06	13.4328
Product 6	3.76	3.52	3.64	13.2352
Product 7	3.9	3.52	3.88	13.728
Product 8	3.74	3.18	3.84	11.8932
Product 9	3.58	3.16	3.68	11.3128
Price 1	3.52	3.38	3.7	11.8976
Place 1	3.54	3.38	3.54	11.9652
Place 2	3.5	3.36	3.7	11.76
Promotions1	3.58	3.18	3.5	11.3844
Promotions2	3.48	3.16	3.56	10.9968
Promotions3	3.66	3.16	3.64	11.5656
Total	54.68	49.42	55.24	180.3012

Source: Authors (2024)

Importance Performance Analysis (IPA)

The Importance Performance Analysis (IPA) method is carried out to analyse the dimensions of a product or service. A series of service dimensions related to special services are evaluated based on the level of importance of each attribute according to the customer and how the service is perceived relative to each attribute using a carteus diagram. This method aims to translate what customers want is measured in terms of what each company must do in order to produce quality products or services, both tangible and intangible.

The image of the image attribute mapping service in Cartesian form shows the calculation of the average perception and expectations, the service attributes are mapped in a Cartesian diagram to determine the priority quadrant for improvement. This analysis helps identify attributes that should be maintained, improved, and those that do not affect customer satisfaction:

a. Quadrant I (Top Priority)

Attributes that are very important to consumers but not satisfactory enough, these attributes include the price of AA.co.Store t-shirts, the state of the parking lot, and cleanliness.

b. Quadrant II (Priority That Must Be Maintained)

Attributes that have met consumer expectations, these attributes include products made from combed cotton, 24s t-shirt thickness, products that are comfortable to use, and products using premium DTF screen printing.

c. Quadrant III (Low Priority)

Attributes that are less important to consumers and the quality of service is mediocre. these attributes include product size differences of 2-3cm with local sizes, stitching using stick overdeck, colours that do not fade easily, packaging using plastic zip lock, every 1pcs purchase gets a free gift, and every wholesale / pcs purchase gets a discount.

d. Quadrant IV (Excessive)

Attributes that are less important to consumers but their implementation is quite good. these attributes include discounts at every event and a faster process because they use printer technology.
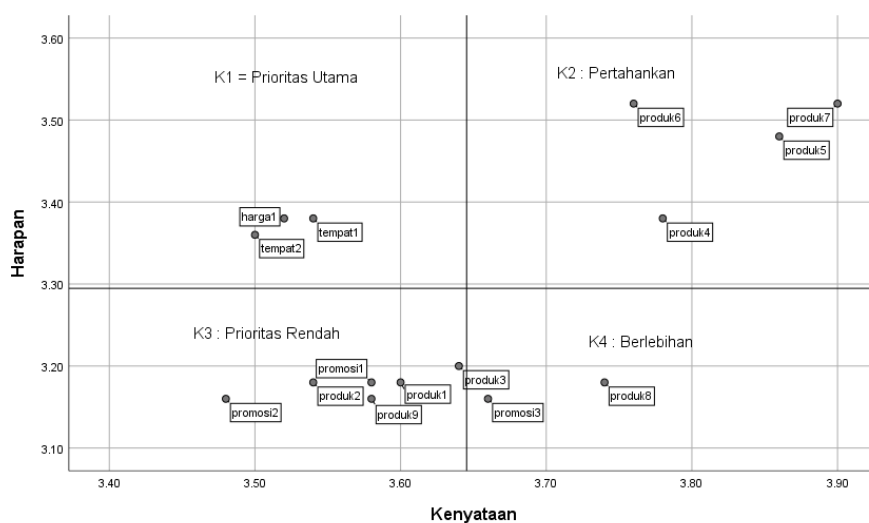

Figure 2. Importance Performance Analysis
Source: Authors (2024)

Quality Function Development (QFD)

After determining the gap using servqual and IPA analysis, the next step is to conduct a QFD analysis. One of the techniques in analysing QFD uses the House of Quality (HOQ). The stages in the preparation of HOQ are as follows:

a. Target and Column Weight

The target value is represented to meet customer needs. After knowing the target to be achieved in order to fulfil cutomers needs, it is necessary to find the column weight for each technical requirement.

b. Correlation Matrix

Correlation Matrix to determine the relationship structure of each technical requirement item in HOQ. So that based on the analysis using the Quality Function Deployment method, a description of the relationship between each technical requirement is obtained.

c. Target Value Data

Target values need to be determined by management on each attribute. Company performance assessed by consumers can be used as a reference for setting the target value of service attributes.

d. Determine the Sales Point Value

Sales Point is a company's desire that affects the competitiveness used in marketing later. The symbol used at the sales point is a certain value that is greater than one (1), for example 1.2 and 1.5 While what is not a sales point has a value equal to 1. The existing service attributes are considered as customer

desires that affect competitiveness in marketing. One of the ways that can help companies in determining the design in meeting customer needs is by utilising the power of QFD on aggressive goal setting that brings competitive advantage. This allows the QFD process to record what parts of the design require thought to realise that advantage.

e. Determining the Improvement Ratio

After knowing the sales point value for each attribute, then determine the improvement ratio value.

f. Determining the Row Weight Value (Raw Weight)

Next is to determine the line weight value for each attribute. The size of the line weight can indicate the priority level of taking an action to improve service quality. The needs of consumers who have the greatest weight of the line weight means getting priority first to improve the quality of service and everything that supports or is related to the service.

g. QFD Analysis Results

HOQ serves as a product planning matrix consisting of consumer needs, technical needs, and competitor analysis. The House of Quality in this study is used to determine the priority of improvements in efforts to improve services by AA.co.Store MSMEs.
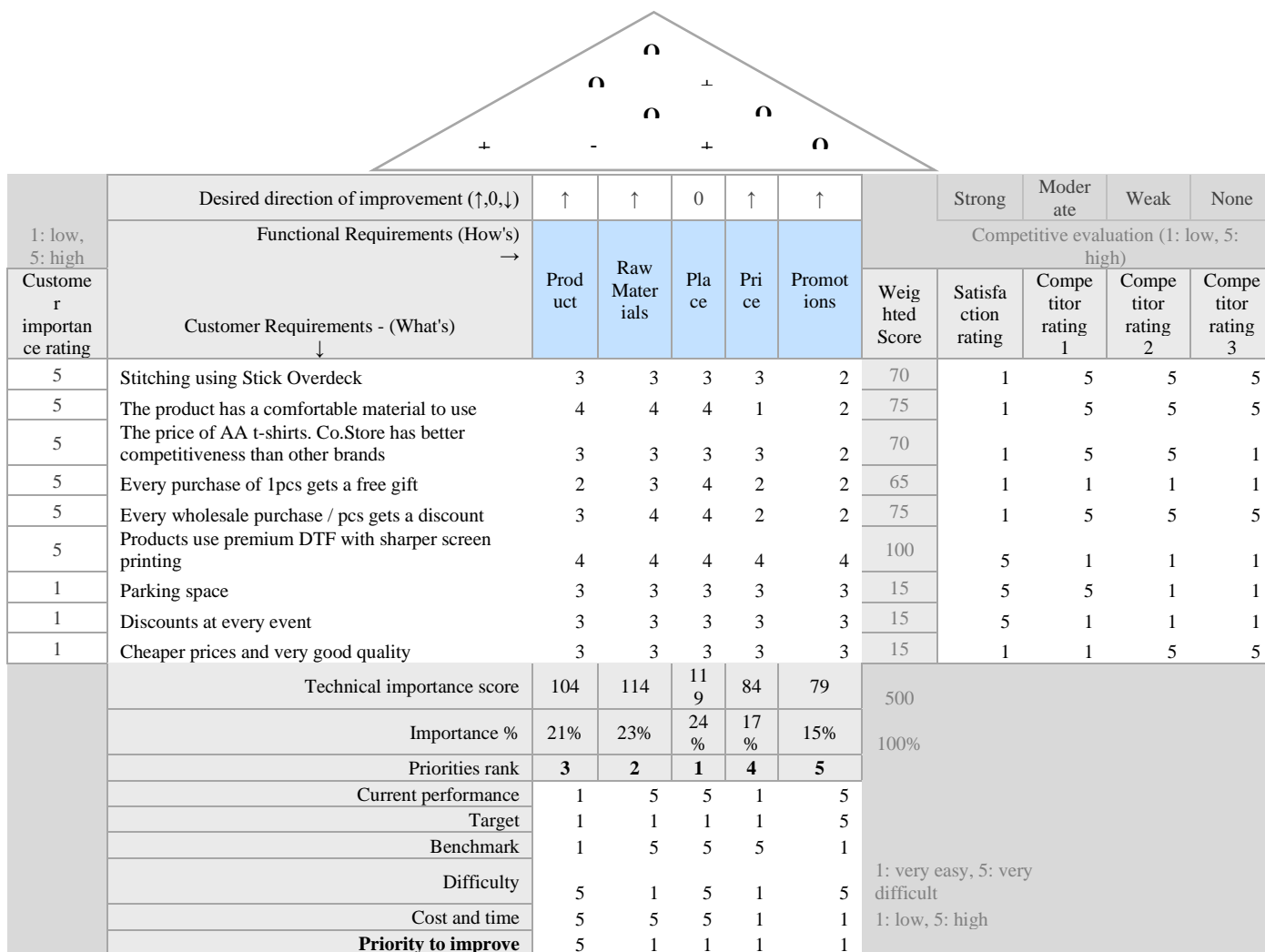
	Desired direction of improvement (↑,0,↓)	↑	↑	0	↑	↑		Strong	Moderate	Weak	None
1: low, 5: high	Functional Requirements (How's) →	Product	Raw Materials	Place	Price	Promotions		Competitive evaluation (1: low, 5: high)			
Customer importance rating	Customer Requirements - (What's) ↓	Product	Raw Materials	Place	Price	Promotions	Weighted Score	Satisfaction rating	Competitor rating 1	Competitor rating 2	Competitor rating 3
5	Stitching using Stick Overdeck	3	3	3	3	2	70	1	5	5	5
5	The product has a comfortable material to use	4	4	4	1	2	75	1	5	5	5
5	The price of AA t-shirts. Co.Store has better competitiveness than other brands	3	3	3	3	2	70	1	5	5	1
5	Every purchase of 1pcs gets a free gift	2	3	4	2	2	65	1	1	1	1
5	Every wholesale purchase / pcs gets a discount	3	4	4	2	2	75	1	5	5	5
5	Products use premium DTF with sharper screen printing	4	4	4	4	4	100	5	1	1	1
1	Parking space	3	3	3	3	3	15	5	5	1	1
1	Discounts at every event	3	3	3	3	3	15	5	1	1	1
1	Cheaper prices and very good quality	3	3	3	3	3	15	1	1	5	5
	Technical importance score	104	114	119	84	79	500				
	Importance %	21%	23%	24%	17%	15%	100%				
	Priorities rank	**3**	**2**	**1**	**4**	**5**					
	Current performance	1	5	5	1	5					
	Target	1	1	1	1	5					
	Benchmark	1	5	5	5	1					
	Difficulty	5	1	5	1	5	1: very easy, 5: very difficult				
	Cost and time	5	5	5	1	1	1: low, 5: high				
	Priority to improve	5	1	1	1	1					

Figure 3. QFD and HOQ
Source: Authors (2024)

Namely the table of the application of the Quality Function Deployment (QFD) matrix and the emergence of the House of Quality (HOQ) arrangement, the implementation of the Quality Function Deployment (QFD) matrix and the emergence of House of Quality (HOQ) structuring have led to progress in improving product quality at AA.Co.Store. One area that requires significant change is product design, in order to reduce customer complaints. Planning steps have been proposed to increase profits at the store. The integration of the service quality method and importance-performance analysis has helped categorize attributes for service quality improvement. The QFD method is used in conjunction with the relationship level to determine the order of improvement for each attribute. The correlation matrix, which is the roof and determinant of the relationship structure in the HOQ, shows the positive and negative relationships between various technical requirements. Based on the order of improvement, the attributes requiring attention at AA.Co.Store include product delivery on time, employees providing solutions for requested designs, and improvement of existing facilities and infrastructure. However, the study reveals that customer satisfaction scores are lower than the level of importance or expectation, indicating that AA.Co.Store needs to fulfill customer interests more effectively.

The results of the analysis indicate that there are several areas that need improvement in order to enhance product quality. The highest priority, according to the QFD analysis, is the physical location of the store, which is evident from its technical importance score of 119 and a percentage importance of 24%. This is followed by raw materials, products, prices, and promotions, with varying scores and percentages of importance.

The location of AA.co.Store is considered a top priority and must be maintained as such. The store should have a spacious parking lot, and the comfort and cleanliness of the store need to be improved. It is recommended to have a well-organized display layout for shirts, hoodies, and jackets, ensuring a comfortable and visually appealing shopping experience. Additionally, maintaining a cool and pleasant shopping environment by having a cooler and other amenities is important.

Raw materials take the second priority, as their availability and consistency are essential for meeting consumer preferences. Purchasing decisions at AA.co.Store are influenced by product quality, which is assigned a medium percentage of 21% and ranks third in terms of priority. Therefore, it is crucial to maintain high product quality. For instance, the t-shirts should be made of combed cotton, which is a strong and thick fabric that provides warmth and better sweat absorption. The hoodies should use high-quality cotton material that offers a soft and comfortable texture, as well as excellent sweat absorption. The distro jackets should also be made using quality materials like babyterry and fleece.

Fleece and babyterry materials are chosen for their comfortable and sweat-absorbing properties. Premium DTF screen printing, which is both environmentally friendly and durable, is used for the distro screen printing process. High-speed overdeck machines are utilized for stitching purposes. The prices of the products at AA.co.Store are medium to high, but still affordable. Although attractive promotions such as gifts and discounts are offered, they are not yet compelling enough to attract consumers. Therefore, improvements in the promotion category are needed.

Based on the QFD table, products with premium DTF screen printing are given the highest weight score of 100, which reflects their significance. The next priority is given to products made with comfortable materials and offering discounts on wholesale purchases, with a weight score of 75. Stitching using overdeck machines is also considered important, earning a weight score of 70. Lastly, giving gifts or organizing raffles for every purchase of 1 piece has a weight score of 65. Surprisingly, the parking lot has the lowest weight score of 15 and is not deemed a top priority for consumers. Instead, they prioritize discounts and lower prices.

CONCLUSION

Based on data analysis and calculations related to AA.co.Store service quality, it can be concluded that Customer satisfaction with AA.co.Store services is fulfilled, which is indicated by the results of the questionnaire using the SERVQUAL method which does not show a negative value for the AA.co.Store brand when compared to other brands. There are three service quality attributes that need to be prioritised for improvement at AA.co.Store, namely the price of t-shirts that are more competitive than other brands, the condition of the parking lot, and cleanliness. There are several steps that can be taken to improve service quality based on technical needs, including: a.) changing the organisational strategy on company performance, especially in the operational section, b.) increasing the stock of materials to meet the number of orders, c.) providing training and development on existing SOPs, and d.) repairing and maintaining existing equipment in the company.

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