(RESEARCH ARTICLE)

The impact of marketing mix on customer loyalty with customer satisfaction as mediating variable

Lena Ellitan *

Faculty of Business Widya Mandala Catholic University Surabaya, Indonesia.

Abstract

The drastic changes that have taken place in Indonesia have changed human lives. Humans who are already dependent on using plastic bags, should slowly reduce the use of plastic bags by the government. Due to government regulations, many companies that produce plastic bags and shops that sell plastic bags suffer losses. Therefore, plastic bag companies and shops that sell plastic bags must be clever in managing their marketing. This study was influenced by previous research that sought the effect of marketing mix (4P) on customer loyalty mediated by customer satisfaction. This research was conducted to understand the impact of marketing mix on customer loyalty in Surabaya, using customer satisfaction as a mediator. This research uses quantitative research methods, with 100 respondents aged 17 years or older, who have used plastic bags and lived in Surabaya. Respondents will fill in the questionnaire given using the Google form. This research found that the product has an impact on customer satisfaction; price has an impact on customer satisfaction; place has an impact on customer satisfaction; promotion has an impact on customer satisfaction; customer satisfaction has an impact on customer loyalty; customer satisfaction mediates the relationship between product and customer loyalty; customer satisfaction mediates the relationship between price and customer loyalty; customer satisfaction mediates the relationship between place and customer loyalty; customer satisfaction mediates the relationship between promotion and customer loyalty.

Keywords: Product; Price; Place; Promotion; Customer Satisfaction; Customer Loyalty

1. Introduction

The concept of conventional marketing, as many writers try to define, can be explained in various ways. It was first defined in 1948 by the American Marketing Association (AMA), United States, as "the performance of business activities directed at, and incidentally, the flow of goods and services from producers to consumers or users". In 1985, the AMA changed this definition and defined the marketing concept as "the process of planning and implementing the conception, price, promotion, and distribution of ideas, goods, and services to create exchanges that meet individual and organizational goals"

The marketing mix is a product strategy, distribution, promotion and pricing to produce and exchange and reach the target market. "Marketing mix - interrelated actions and solutions to meet consumer needs and to achieve the company's marketing objectives, as a whole".

Marketing is a system of business activities designed to plan, determine prices, promote and distribute products that can satisfy the desire to achieve company goals. Marketing is a management process that seeks to maximize earnings (returns) for shareholders by establishing relationships with valuable customers and creating competitive advantages. Marketing Mix is a marketing strategy that is carried out simultaneously in applying strategic elements in the marketing

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* Corresponding author: Lena Ellitan

mix itself (Shaw, 2012).. They must also act more practically by using desirable distribution methods and providing good services, using informational advertisements, identifying opportunities and using them to attract more resources. In addition, they must strive to increase market share and customers through creativity and innovation and to match resources with customer needs. The marketing mix element is a control tool in the hands of organizations that leads to customer satisfaction (Shaw, 2012).. A clear understanding of the elements of the marketing mix by service providers will have an influence on potential and current customers, turning them into loyal customers, and helping them continue their business life.

Marketing mix is a strategy developed systematically through tactical marketing, pricing, location and promotion (4P). Product, price, place, and promotion are factors that cause a business to succeed or fail (Simangunsong, Sitompul, & Sadalia, 2018).. The company integrates these four variables to produce the desired response in the targeted market. Therefore, this research was conducted with the main objective to investigate the impact of the marketing mix on customer satisfaction with the Plastic Industry in Surabaya to achieve customer loyalty Astuti, Lutfian, Silalahi, Dian, & Wijaya, (2015).

According to The Indonesian Olefin & Plastic Industry Association (Inaplas) concerned that the ban on the use of plastic bags will make the domestic industry close. The next impact is opening the gap of imported plastic bags into Indonesia.Inaplas Deputy Chairman Suhat Miyarso said the plastic shopping bag industry had been developing for quite a long time. Currently the industry is dominated by Small and Medium Industries (SMEs) with a number of workers ranging from 5 to 200 people per company. While the total employees of all factories or plastic bag companies reach 25 thousand people. This industry will be directly affected by the ban on the use of plastic bags so that it will reduce industry performance and result in Termination of Employment (FLE). Head of the Olefin Division of the Indonesian Olefin, Aromatic and Plastic Industry Association (Inaplas) Edi Rifai said, the production of plastic bags in the first quarter of 2019 decreased 20% compared to the same period last year (year on year / yoy). The decline occurred after several regions banned the use of plastic. "From (information) plastic bag industry friends, there is a 20% decline in production due to the existing ban," Edi said in Jakart.

Customer Loyalty cannot be isolated from marketing mix in Product/Service Sector. The Evaluation of Customer Satisfaction and its impacts on Customer Loyalty may help on increasing market share of Plastic Industry in Surabaya. Despite the considerable progress of previous research in explaining the Impact between Customer Loyalty and marketing mix, this study adds further insight to understand the link between them. Marketing Mix is considered for 4Ps (Product , Price, Place, Promotion). The Dimension of Customer Loyalty are identified and evaluated through questionnaire Isoraite, M. (2016).. The 4ps are also Identified and evaluated through the primary data collection which adds alternative values in the area of research. This study may be a bridge for the knowledge gap between Customer satisfaction on Marketing mix and its impacts on customer loyalty (Simangunsong, Sitompul, & Sadalia, (2018)..

2. Literature Review and Hypothesis Building

The strong impact of customer satisfaction on brand loyalty has been investigated and researched and proven (Simangunsong, Sitompul, & Sadalia, 2018).. Before being loyal, customers must be satisfied. Based on customer relations, customers have proven that satisfaction creates a sense of loyalty and trust in the organization. In addition to referring to organizations to repurchase favorite products and services, loyal customers, as an additional factor in promoting the organization's products and services through recommending close relatives or others, play an important / significant role in increasing profits and improving the company's image in the minds of potential customers Gronroos, C. (2012)..

2.1. Relationship between Product and Customer Satisfaction

Product quality brings satisfaction and increases competitive advantage and attracts potential customers. By product marketing mix variables, we mean ideas such as innovative services and value-added services in the company. Customers become satisfied by experiencing quality. According to Ohrabi, Hanbolooki, , & Hazavi, (2017)., an increase in the marketing mix of products will significantly increase customer satisfaction. Previous studies also showed that products have a positive effect on customer satisfaction It is important to note that product quality is not reviewed by the company's point of view, it is seen from the customer's perspective. Related to that, his party raised two important factors that affect product quality, namely expected product quality and perceived product quality (Razak, Nirwanto, & Triatmanto, 2016).. In detail, if the perceived quality of the product is in line with expectations, then the customer will regard the quality of the product as good quality and also feel satisfied. Conversely, if the perceived quality of the product is not as expected, then the quality of the product as perceived by the customer qualifies as poor product quality

Gronroos, C. (2012).. Thus, bad and good product qualifications depend on the company's ability to meet customer expectations.

- H1: There is positive impact of Product on Customer Satisfaction
- H2: Customer Satisfaction mediates the impact of Product on Customer Loyalty

2.2. Relationship between Price and Customer Satisfaction

Price is an important factor in customer responses to product values. Sometimes the customer is satisfied if the quality of the product exceeds the costs incurred by the customer (Ohrabi, Hanbolooki, & Hazavi, 2017).. Each study illustrates that there is a relationship between price and customer satisfaction. It is important to remember that product quality is not seen from the perspective of the company, it is seen from the perspective of the customer. Related to that, his party raised two important factors that affect product quality, namely the desired product quality and product quality perspective. In detail, if the perceived quality of the product matches the expectation, the customer will regard the quality of the product as good quality and also feel satisfied Gronroos, C. (2012).. Conversely, if the perceived quality of the product is not as expected, the quality of the product experienced by the customer qualifies as poor product quality. Thus, bad and good product qualifications depend on the company's strength to meet customer desires.

- H3: There is positive impact of Price on Customer Satisfaction
- H4: Customer Satisfaction mediates the Impact of Price on Customer Loyalty

2.3. Relationship between Place and Customer Satisfaction

Supply chain organizations, including suppliers, manufacturers, wholesalers, retailers, and end users, secure a competitive position, ultimately increasing the company's ability to satisfy customers more efficiently. Location of inconvenience for customer causes dissatisfaction among customers which further negatively affects the organization Gronroos, C. (2012).. The services offered to customers are an important basis for getting customer satisfaction. These statements are supported by previous research. The place and location to provide services is one of the most important topics in service marketing management which in addition to making the service tangible, it is also important to accelerate and simplify and gain access to important services. Because the integral nature of service providers, location and distribution are important factors in service marketing strategies Isoraite, M. (2016).. When the distribution system is improved, customers make less effort to find the desired brand, which affects the perceived quality level.

- H5: There is positive impact of Place/ Location on Customer Satisfaction
- H6: Customer Satisfaction mediates the Impact of Place/Location on Customer Loyalty

2.4. Relationship between Promotion and Customer Satisfaction

Promotion is an activity that introduces and highlights products or services to customers. Promotional activities must be honest, information based on truth, transparency, and full sincerity to help increase customer satisfaction. Research conducted by researchers also shows the relationship between promotion and customer satisfaction Promotion is an activity to communicate a product with a view to persuading the target market to buy the product Gronroos, C. (2012).. Promotion is an important thing that must be done to open new market opportunities and expand marketing networks. There are several ways to carry out promotional activities, such as: Advertising, Sales Promotion, Personal Sales, Public Relations, Direct Marketing Isoraite, M. (2016)..

- H7: There is positive impact of Promotion on Customer Satisfaction
- H8: Customer Satisfaction mediates the impact of Promotion on Customer Loyalty

2.5. Relationship between Customer Satisfaction and Customer Loyalty

Every satisfied customer must spread positive news to others. Furthermore, satisfaction is the main support of loyalty and for that the customer must be very satisfied. Customer satisfaction measures customer feelings and expectations while customer loyalty reflects future buying activities and purchase commitments. In particular, customer satisfaction provides the basis for achieving customer loyalty. Several studies have shown that customer satisfaction has a significant impact on customer loyalty. The relationship between marketing mix and customer satisfaction is not always the same because it is influenced by several factors, one of which is the product itself (Ohrabi, Hanbolook, & Hazavi, 2017).. In industries where products have low involvement, satisfaction is often the dominant driving factor in shaping customer loyalty. Meanwhile, products with high involvement, other factors are more dominant in shaping the loyalty of their customers Gronroos, C. (2012).. Nevertheless customer satisfaction is one element in forming customer loyalty

regardless of its influence. Thus, when customers are satisfied with products with high involvement, customers do not need to be loyal because of other dominant factors in forming customer loyalty.

Product quality has the greatest impact on satisfaction level which ignites a sense of customer loyalty. Often resulting in customer loyalty is product which has strong name. User service enhancement also improves consumer loyalty. onsumers who are happy with product quality rarely turn to a different product. Such arguments are backed by previous research showing that the product has a strong consumer satisfaction impact and represents customer loyalty.

Customers who feel happy are able to pay more on the quality requirements of the goods but not compromise. This means that price will affect consumer satisfaction rates, and that satisfaction brings loyalty. Place is one of the components of the marketing mix directly linked to consumer loyalty. The advertising aims at developing relationships with customers in order to educate customers or influence the attitude of customers. Attractive marketing will carry the offered goods to consumers who are interested. The promotion that is acceptable or even exceeds the actual quality of the advertised product will please consumers and the business would be loyal to consumers. Consumer happiness and consumer loyalty are positively influenced by marketing.

H9: There is positive impact of Customer Satisfaction on Customer Loyalty.

3. Research method

3.1. Research Design

Research patterns or designs are important in a study, because research design functions to facilitate the steps that must be done in a study and can also be used as a handle so as not to get out of the provisions, so they can achieve the expected goals. The research design made must be in accordance with the variables contained in the study. The definition of variables according to Arikunto (2010) is the object of research, or what is the focus of research. This research is quantitative because it only will through questionnaires as a method of knowing response consumers about the relationship between marketing mix and customer loyalty with the mediating effect of customer satisfaction among plastic bags users in Surabaya.

3.2. Operational Definition of Variables

In this study, the variables to be studied consist of five variables, respectively which can be defined and measured as follows:

3.3. Product (P1)

The Operational Definition of Product used in this research is Sumarni and Soeprihanto (2017), the product is anything that can be offered in the market to get some attention, demand, use or consumption that can meet the desires and needs. Products are not only always goods but can also be services or a combination of both (goods and services). This variable has three indicators (Alipour,Pour, & Darbahaniha, (2018).), namely:

(P1.1): In my opinion, plastic bags help me in carrying goods

(P1.2): In my opinion, plastic bags can be used to wrap items that will be stored in a warehouse / cupboard

(P1.3): In my opinion plastic bags are useful for daily life

3.4. Price (P2)

The Operational Definition of Price used in this research is According to Sumarni and Soeprihanto (2015) prices are, "The amount of money (plus several products if possible) is needed to get a number of combinations of goods and their services". This variable has three indicators (Alipour,Pour, & Darbahaniha, (2018).), namely :

(P2.1): In my opinion plastic bags sold at plastic shops have relatively cheap prices

(P2.2): I think the price of plastic bags sold in plastic shop and quality of plastic bags is balanced

3.5. Place (P3)

The operational definition of Price used in this study is (Kushawaha and Agrawal (2015)) explaining that the decision for physical distribution decisions considers how orders are processed, where storage is located, how many preparations should be prepared, and how goods should be handled and transported. This variable has three indicators (Alipour,Pour, & Darbahaniha, (2018).), namely:

- (P3.1): Stores that sell plastic bags in Surabaya are easily accessed by consumers
- (P3.2): Stores that sell plastic bags in Surabaya have strategic locations so that they are easily found
- (P3.3): Plastic stores provide delivery services by the number of parties

3.6. Promotion (P4)

The operational definition of Promotion in research is Sponsoring is the most important consumer sales promotion tool including discounts and promotions, as well as coupons, samples, refunds, bonuses, awards, contests and product demonstrations, and saying something that motivates consumers to buy. "Sponsorship - is an activity that makes the target customer knows a product or service and its benefits and is convinced to buy the product (Kotler, Armstrong, Saunders, Wong). Sponsoring - this element of the marketing mix, includes decisions and actions provided for the group of people given information and being encouraged to buy (Alipour,Pour, & Darbahaniha, (2018).) namely:

(P4.1): Stores that sell plastic bags in Surabaya often do promotions

(P4.2): Plastic shops do promotions through electronic media ((Instagram, Shopee,Tokopedia etc.)

(P4.3): Plastic stores provide discounted prices for purchasing plastic bags in party quantities

3.7. Customer Satisfaction (CS)

The Operational Definition of Customer Satisfaction used in this research is Customer satisfaction can thus be defined as the feeling of pleasure or disappointment as a result of comparing the results with expectations (Kotler, Armstrong, 2013). This variable has four indicators, namely:

(CS1): Overall plastic bag products are very satisfying

(CS2): Overall the price of plastic bags offered with balanced plastic quality

(CS3): Stores that sell plastic bags in Surabaya are easy to find

(CS4): overall the promotion carried out by the plastic shop was satisfying

3.8. Customer Loyalty (CL)

The operational definition in this research is Thomas and Tobe (2013) say that "loyalty is more profitable." The cost of getting new customers is more than just keeping existing customers. Loyal customers will encourage others to buy from you and think more than twice before changing their mind to buy other services. Customer loyalty is not obtained because of an accident, they are built through source and design decisions. Designing for customer loyalty requires a customer-centered approach that recognizes the desires and interests of service recipients. Customer loyalty is built over time on various transactions. This variable has two indicators, namely:

(CL1): I am interested in continuing to use plastic bags

(CL2): I would advise others to use plastic bags

4. Results

4.1. General Description and Object of Research

The purpose of this study is to analyze customer loyalty to the use of plastic bags by analyzing the marketing mix and by mediating customer satisfaction in using plastic bags. Data is obtained from primary data using Google forms and distributed online. Characteristics for filling out forms are people who live in Surabaya, aged 17 and over and those who

have bought and used plastic bags. The researchers collected data online using Google Forms. Questionnaires are distributed by sharing links through Social Media such as Line and Whatsapp. Respondents in this study were consumers who bought plastic bags in plastic shops that were male and female and numbered as many as 100 people.

Table 1 Summary of Respondents' Responses

Characteristics		Person
Gender	Male	46
	Female	54
Age	17-27 years old	59
	28-38 years old	20
	39-49 years old	11
	>49 years old	10
Profession	Students	49
	Employees	22
	Entrepreneurs	24
	Housewife	5

Source: Appendix 2

4.2. Finding

This study uses Partial Least Square (PLS) to measure the effect of products, prices, places, and promotions on customer satisfaction; customer satisfaction over customer loyalty; and the mediating effect of customer satisfaction between products, prices, places and promotions on customer loyalty. In this study, there are 6 variables used:
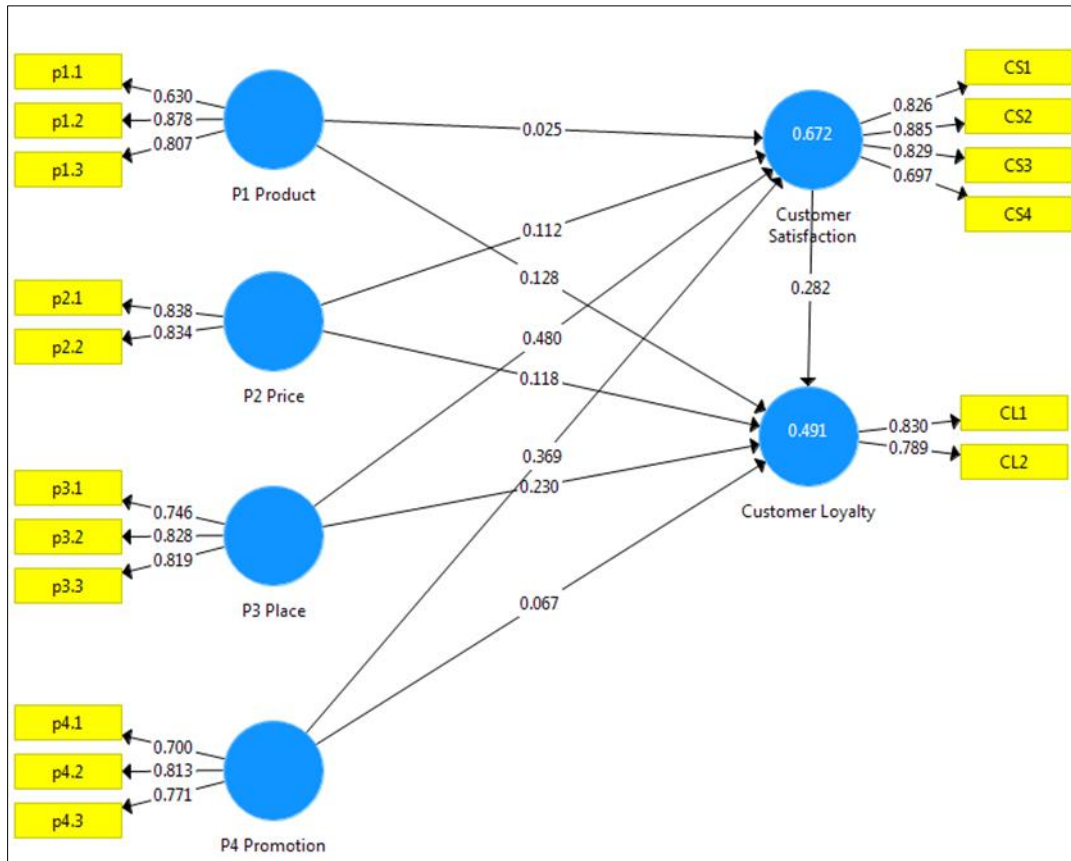
Product → P1 (P1.1, P1.2, P1.3)

Price → P2 (P2.1, P2.2)

Place → P3 (P3.1, P3.2, P3.3)

Promotion → P4 (P4.1, P4.2, P4.3)

Customer Satisfaction → CS (CS1, CS2, CS3, CS4)

Customer Loyalty → CL (CL1, CL2)

Source: Appendix 4

Figure 1 Smart PLS 3.0 Path Modeling

4.3. Outer (Measurement) Model Evaluation

The purpose of outer model analysis is to get a better understanding of the relationship between the layout of variables and indicators by analyzing convergent validity, discriminant validity, and composite reliability.

4.4. Convergent Validity

Convergent validity is the calculation of the construct must be positively correlated with other alternative constructs (Hair et al., 2014: 119). Analysis of convergent validity can be calculated by looking out of loading with a cutoff ≥ 0.70 so that the data becomes valid. Table 2 provides external loading data for each indicator variable and in this study, each indicator must meet the criteria with a cut-off ≥ 0.70. This shows that the indicator is very compatible with the variable.

Table 2 Outer Loading

Variable	Indicator	Loading Factor	Cut Off	Result
P1	P1.1	0.630	0,700	Invalid
	P1.2	0.878	0,700	Valid
	P1.3	0.807	0,700	Valid
P2	P2.1	0.838	0,700	Valid
	P2.2	0.834	0,700	Valid
P3	P3.1	0.746	0,700	Valid
	P3.2	0.828	0,700	Valid
	P3.3	0.819	0,700	Valid

P4	P4.1	0.700	0,700	Valid
	P4.2	0.813	0,700	Valid
	P4.3	0.771	0,700	Valid
CS	CS1	0.826	0,700	Valid
	CS2	0.885	0,700	Valid
	CS3	0.829	0,700	Valid
	CS4	0.697	0,700	Invalid
CL	CL1	0.830	0,700	Valid
	CL2	0.789	0,700	Valid

There is another method for evaluating convergent validity, namely with Average Variance Extracted (AVE) with a cut-off ≥ 0.50. Table 3 shows that the AVE value for this study is appropriate.

Table 3 Average Variance Extracted (AVE)

Variable	Average Variance Extracted (AVE)	Cut Off	Result
P1	0.656	0,500	Valid
P2	0.660	0,500	Valid
P3	0.606	0,500	Valid
P4	0.699	0,500	Valid
CS	0.638	0,500	Valid
CL	0.582	0,500	Valid

4.5. Discriminant Validity

Discriminant validity is for extending constructs different from other constructs with empirical standards (Hair et al., 2014: 121). Validity analysis can be calculated by looking at the cross-loading of each indicator marked in bold and the bold number must be higher than other variables of the same horizontal line. From Table 4. it can be seen about the cross loading of each indicator more than the other variables. This data shows that the indicators are different for each variable.

Table 4 Discriminant Validity – Cross Loading

	P1	P2	P3	P4	CS	CL
P1.1	**0.630**	0.365	0.318	0.512	0.350	0.290
P1.2	**0.878**	0.454	0.442	0.620	0.536	0.499
P1.3	**0.807**	0.383	0.391	0.541	0.460	0.388
P2.1	0.420	**0.838**	0.640	0.324	0.515	0.517
P2.2	0.441	**0.834**	0.642	0..392	0.572	0.440
P3.1	0.437	0.544	**0.746**	0.324	0.551	0.482
P3.2	0.406	0.624	**0.828**	0.385	0.681	0.514
P3.3	0.346	0.670	**0.819**	0.274	0.500	0.483
P4.1	0.482	0.214	0.167	**0.700**	0.403	0.330

P4.2	0.587	0.337	0.306	**0.813**	0.499	0.351
P4.3	0.562	0.405	0.443	**0.771**	0.535	0.417
CS1	0.463	0.526	0.519	0.640	**0.826**	0.539
CS2	0.536	0.532	0.667	0.514	**0.885**	0.562
CS3	0.483	0.498	0.652	0.500	**0.829**	0.518
CS4	0.413	0.567	0.530	0.393	**0.697**	0.471
CL1	0.442	0.487	0.503	0.398	0.566	**0.830**
CL2	0.393	0.440	0.501	0.385	0.475	**0.789**

Source: Appedix 7

Another way to calculate discriminant validity is to look into the Average Variance Extracted (AVE) root square. The square root of AVE must have a greater value between latent constructs (Hair et al., 2014). The results of the AVE square root can be seen in Table 5 below. Based on the measurement of Square Root AVE in Table 5, it can be seen based on the indicators of all variables producing root values. This data shows that the construct of this study has good discriminant validity.

Table 5 Square Root AVE

	CL	CS	P1	P2	P3	P4
CL	0.810					
CS	0.645	0.812				
P1	0.517	0.586	0.778			
P2	0.573	0.651	0.515	0.836		
P3	0.619	0.731	0.498	0.767	0.799	
P4	0.483	0.634	0.716	0.428	0.415	0.763

4.6. Reliability of the Composite

Evaluation of composite reliability is by looking at Cronbach's alpha and composite reliability, which provides an estimate of the reliability of the correlation of indicator variables. The criteria for composite reliability so that the data can be relied upon is to evaluate each variable with a cutoff ≥ 0.70. Table 6 provides a composite reliability evaluation which can then be seen that all variables have values ranging from 0.477 to 0.825 which means that not all variables are accurate and consistent.

Table 6 Composite Reliability

Variable	Composite Reliability
P1	0.477
P2	0.825
P3	0.670
P4	0.569
CS	0.716
CL	0.641

Source: Appendix 9

4.7. Inner (Structural) Model Evaluation

The Inner Model explains the relationship of latent variables. Evaluation of the inner model can be calculated using the R-square value, f-square value, predictive relevance, significance of the size of the influence of the path coefficient and hypothesis testing.

4.8. R-Square (R^2)

The coefficient of determination (R2) is used to determine the ability of dependent variables to explain the diversity of independent variables, or in other words determine the amount of contribution of independent variables to dependent variables.

Table 7 shows that the R-square value of the Customer Satisfaction variable is 0.672 or 67.2%. This can indicate that the diversity of Customer Satisfaction variables can be explained by product, price, place, and promotion variables of 67.2%, or in other words the contribution of product, price, place, and promotion variables to Customer Satisfaction is 67.2%, while the remaining 32.8% is contributed by other variables not discussed in this study.

The R-square value of the Customer Loyalty variable is 0.491 or 49.1%. This can indicate that the diversity of Customer Loyalty variables can be explained 5by the Product, Price, Place, Promotion, and Customer Satisfaction variables of 49.1%, or in other words Product, Price, Place, Promotion, and the contribution of Customer Satisfaction variables to Customer Loyalty is 49.1%, while the remaining 50.9% is contributed by other variables not discussed in this study.

Table 7 R-Square Value

	R Square	R Square Adjusted
CS	0.672	0.659
CL	0.491	0.463

Source: Appendix 10

4.9. f-Square (f^2)

In addition to seeing the R-square value, the PLS model is also evaluated by looking at the f-square value (effect size) to understand the impact of latent variables in the constructive model. The latent variable has a strong impact if the f-square value is 0.35, the impact is moderate if 0.15, and small if 0.02. The results can we see in Table 8.

Table 8 f-Square Effect Size Test Result

Independent Variable	Dependent Variable	
	CS	CL
P1	0.001	0.014
P2	0.015	0.010
P3	0.279	0.032
P4	0.201	0.004
CS		0.051

Source: Appendix 11

Table 8 show that the effect size value (f2) of Customer Satisfaction has a small impact on Customer Loyalty. Products and prices have a small impact on Customer Satisfaction, while places and promotions have a moderate impact on Customer Satisfaction. Product, price, and promotion have a small impact on Customer Loyalty, while place has a moderate impact on Customer Loyalty.

4.10. Predictive Relevance (Q^2)

The Q^2 value can be used to measure how well the observational value generated by the model and also the estimated parameters. Q^2 value greater than 0 (zero) indicates that the model is said to be predictive relevant, while Q^2 value less than 0 (zero) indicates that the model has less predictive relevance. The results of Table 9 show that the Predictive Relevance (Q^2) value is greater than 0 (zero) which indicates that the model is said to be good enough.

Table 9 Predictive Relevance

	Q^2=1-(1 - CS R-square)x (1- CL R-square)
Q^2	0.833

Source: Appendix 12

4.11. Path Coefficient

Path coefficient is the estimated path relationship in a structural model that has a standard value between -1 and +1. The estimated path coefficient close to +1 indicates that the path has a strong relationship. However, if the path coefficient approaches -1 it means that the path has a negative relationship and if the coefficient approaches 0 indicates that the path has a weaker relationship (Hair et al., 2014). The table 10 shows that the path coefficient ranges from 0.025 to 0.480, with the most significant variable on perceived customer satisfaction is the place. The following explanation:

Product has positive path coefficient of Customer Satisfaction and Customer Loyalty with the value of 0.025 and 0.128. This shows that if product variable increase, then customer satisfaction variable also increased by 2.5% and customer loyalty increased by 12.8%.

Price has positive path coefficient of Customer Satisfaction and Customer Loyalty with the value of 0.112 and 0.118. This shows that if price variable increase, then customer satisfaction variable also increased by 11.2% and customer loyalty increased by 11.8%.

Place has positive path coefficient of Customer Satisfaction and Customer Loyalty with the value of 0.480 and 0.230. This shows that if place variable increase, then customer satisfaction variable also increased by 48% and customer loyalty increased by 23%.

Promotion has positive path coefficient of Customer Satisfaction and Customer Loyalty with the value of 0.369 and 0.067. This shows that if promotion variable increase, then customer satisfaction variable also increased by 36.9% and customer loyalty increased by 6.7%.

Customer Satisfaction has positive path coefficient of Customer Loyalty with the value of 0.282. This shows that if customer satisfaction variable increase, then customer loyalty variable also increased by 28.2%.

Table 10 Path Coefficient

	CS	CL	Relationship	Mathematical Equation
P1	0.025	0.128	Positive	CS = 0.025 P1
P2	0.112	0.118	Positive	CS = 0.112 P2
P3	0.480	0.230	Positive	CS = 0.480 P3
P4	0.369	0.067	Positive	CS = 0.369 P4
CS		0.282	Positive	CL = 0.282 CS

Source: Appendix 13

4.12. Indirect Effect

In this study, according to bootstrap results, there is one indirect effect between variables. The criteria for evaluating indirect effects consist of 2 criteria: t-statistic ≥ 1.96 and p-value ≤0.05 (Hair et al., 2014). From table 4.18 below, it can

be concluded that the product, price, place, and promotion have direct uses to customer loyalty mediated by customer satisfaction.

Table 11 Indirect Effect

Path	T Statistics	P Value	Result
P1 -> CS ->CL	0.184	0.854	Rejected
P2 -> CS -> CL	0.970	0.332	Rejected
P3 -> CS ->CL	2.261	0.024	Accepted
P4 -> CS -> CL	1.932	0.054	Rejected

Source: Appendix 14

Based on the test result listed in the table 11 it can be concluded that the T-statistics value and P-value for product, price, promotion is **rejected**. Because all three if these variable has exceeded the minimum requirements of T-statistics but exceeded the maximum limit of p-value.

4.13. Hypotheses Testing

The purpose of testing the hypothesis is to find out the research hypotheses are accepted or rejected. The criteria for the hypothesis to be accepted are the statistics $T \geq 1.96$ and the value of $P \leq 0.05$. Table 12 below shows the results of testing the hypothesis on the research model:

Table 12 Hypothesis Testing

Hypothesis	Path	T Statistics	P Values	Result
H1	P1 -> CS	0.208	0.835	Rejected
H2	P1 -> CS -> CL	1.111	0.267	Rejected
H3	P2 -> CS	1.125	0.261	Rejected
H4	P2 -> CS -> CL	0.996	0.320	Rejected
H5	P3 -> CS	5.127	0.000	Accepted
H6	P3 -> CS -> CL	1.678	0.094	Rejected
H7	P4 -> CS	3.300	0.001	Accepted
H8	P4 -> CS -> CL	0.620	0.535	Rejected
H9	CS -> CL	2.624	0.009	Accepted

Source: 15

Explanation from Table 4.19 of the research hypothesis can be seen below as follows:

4.13.1. Hypothesis 1 (product positively influences customer satisfaction)

Based on the test results listed in Table 12 it can be concluded that the T-statistic value is 0.208 with a P-value of 0.835. This has exceeded the minimum T-statistic requirements and exceeded the maximum p-value limit. Meaning hypothesis 1 is rejected

4.13.2. Hypothesis 2 (customer satisfaction mediates product and customer loyalty)

 Based on the test result listed in the table 12, it can be concluded that the T-statistics value is 1.111, with P-value of 0.267. This has exceeded the minimum requirements of T-statistics but exceeded the maximum limit of p-value. Meaning hypothesis 2 is **rejected**.

4.13.3. Hypothesis 3 (price positively influences customer satisfaction)

Based on the test results listed in table 12, it can be concluded that the T-statistic value is 1.125 with a P-value of 0.261. This has exceeded the minimum T-statistic requirements and exceeded the maximum p-value limit. Meaning hypothesis 3 is **rejected**.

4.13.4. Hypothesis 4 (customer satisfaction mediates price and customer loyalty)

Based on the test result listed in the Table 12, it can be concluded that the T-statistics value is 0.996, with P-value of 0.320. This has exceeded the minimum requirements of T-statistics but exceeded the maximum limit of p-value. Meaning hypothesis 4 is **rejected**.

4.13.5. Hypothesis 5 (place has a positive effect on customer satisfaction)

Based on the test results listed in Table 12, it can be concluded that the T-statistic value is 5.127 with a P-value of 0.000. This has exceeded the minimum T-statistic and maximum p-value requirements. This means that hypothesis 5 is **accepted**.

4.13.6. Hypothesis 6 (customer satisfaction mediates place and customer loyalty)

Based on the test result listed in the Table 12, it can be concluded that the T-statistics value is 1.678, with P-value of 0.094. This has exceeded the minimum requirements of T-statistics but exceeded the maximum limit of p-value. Meaning hypothesis 6 is **rejected.**

4.13.7. Hypothesis 7 (promotion positively influences customer satisfaction)

Based on the test results listed in Table 12, it can be concluded that the T-statistic value is 3.300 with a P-value of 0.001. This has exceeded the minimum T-statistic and maximum p-value requirements. This means that hypothesis 7 is accepted.

4.13.8. Hypothesis 8 (customer satisfaction mediates promotion and customer loyalty)

Based on the test result listed in the Table 12, it can be concluded that the T-statistics value is 0.620, with P-value of 0.535. This has exceeded the minimum requirements of T-statistics but exceeded the maximum limit of p-value. Meaning hypothesis 8 is rejected.

4.13.9. Hypothesis 9 (customer satisfaction positively affects customer loyalty)

Based on the test results listed in Table 12, it can be concluded that the T-statistic value is 2.624 with a P-value of 0.009. This has exceeded the minimum requirements of both T-statistics and p-values, which means hypothesis 9 is accepted.

5. Discussion

The purpose of this study is to determine the factors that influence customer loyalty through customer satisfaction, with plastic bags as the object of this study. The variables measured in this study are product, price, place, promotion, customer satisfaction and customer loyalty. The dimensions of the product are the use of carrying goods, and the use of storing goods. Dimension price is a relatively cheap price and according to quality. How customers perceive a certain price, in which the high-low price of a product can be a significant effect on a customer intention to purchase the product (Situmorang, Sumarwan, & Simanjuntak, (2018). Customer will give an attention to the price paid by other customers, no one is happy to pay more cash compared to the customers and it ultimately will influence their willingness to become a customer. Price as something that can be measured which consists of several indicators, such as the affordable price, discounted price, competitor price, and price suitability. In this study, plastic bag products are included in low-involvement products because customers will not weigh too much to buy plastic bags. Place dimension is a strategic place, easy to reach, and delivery service. The dimension of promotion is the frequent promotion, and give discounts. The expected results by analyzing product dimensions, price, place, promotion is to provide a better understanding of how the marketing mix affects customer satisfaction and customer loyalty, also indirectly influencing customer loyalty through customer satisfaction Faizah, Hassan, & Asiah (2016).

Product quality has the greatest impact on satisfaction level which ignites a sense of customer loyalty (Razak, Nirwanto, & Triatmanto, (2016).. Often resulting in customer loyalty is product which has strong name. User service enhancement also improves consumer loyalty. Consumers who are happy with product quality rarely turn to a different product. Such arguments are backed by previous research showing that the product has a strong consumer satisfaction impact and

represents customer Customers who feel happy are able to pay more on the quality requirements of the goods but not compromise Dubey, & Sahu (2019).. This means that price will affect consumer satisfaction rates, and that satisfaction brings loyalty Place is one of the components of the marketing mix directly linked to consumer "Better store-image not only draws more attention from potential customers, but also increases customer loyalty and positive word-to mouth." Place impacts consumer satisfaction and customer loyalty positively and substantially. The advertising aims at developing relationships with customers in order to educate customers or influence the attitude of customers Jain, (2013).. Attractive marketing will carry the offered goods to consumers who are interested. The promotion that is acceptable or even exceeds the actual quality of the advertised product will please consumers and the business would be loyal to consumers. Consumer happiness and consumer loyalty are positively influenced by marketing. The results of this study indicate that of the 9 proposed hypotheses, 6 hypothesis are rejected and 3 hypothesis are accepted. Further explanation about the hypothesis is as follows:

5.1. Product Significantly Affects Customer Satisfaction

This study uses several indicators to measure the product, namely: product usability and product benefits for users. To prove whether the product has significantly affected customer satisfaction, this study uses 3 indicators, namely: how the product is beneficial for the user, the usefulness of the product and how useful the product is for the user. The results show that the product significantly influences customer satisfaction (Jain 2013). which means that if the user thinks that the product quality is very good, the perceived customer satisfaction will also be greater. This means the opposite, meaning that if the user thinks that the product quality is poor, the perceived value of the user will also be relatively low. Thus, it can be concluded that to have a good value felt by users, companies that produce plastic bags must maintain good product quality (Jain, 2013).. Quality is important to develop customer satisfaction and increase competitive advantage. Customers become satisfied by experiencing quality. Although the product is proven to affect customer satisfaction, this does not mean that the product is the only variable. There are still other possible variables that will affect customer satisfaction (Sevrillia, and Rachmawati, (2016).. But in the hypothesis testing section, the product does not significantly affect customer satisfaction because the value of p exceeds the maximum value that has been determined so that the product hypothesis that affects customer satisfaction is rejected.

5.2. Price Significantly Affect Customer Satisfaction

To prove the relationship between price and customer satisfaction, there are several indicators to measure customer satisfaction, namely: whether the price is cheap according to the customer, whether the price given is in accordance with the quality provided. The results of this study indicate that the price has significantly affected customer satisfaction using plastic bags. Satisfied users can be the result of satisfying product quality. If the user thinks that the price is good, the level of customer satisfaction with the price also increases. This implies the opposite, if the user thinks that the price does not match the product quality, users tend to be dissatisfied Rathod, (2016).. Usually the customer is satisfied if the quality of the product exceeds the costs incurred by the customer. Each study illustrates that there is a relationship between price and customer satisfaction. From these results, it can be concluded that the product is not the only variable affecting customer satisfaction, but price also affects customer satisfaction (Ohrabi, Hanbolooki, & Hazavi, 2017).. This shows the importance of maintaining product quality, to match the prices that will be given to customers and continuously improving quality and checking on its development. But in the hypothesis testing section, price does not significantly affect customer satisfaction because the value of p exceeds the maximum value that has been determined so that the price hypothesis that affects customer satisfaction is rejected.

5.3. Place Significantly Affect Customer Satisfaction

To prove the relationship between place and customer satisfaction, there are several indicators to measure customer satisfaction, namely: whether the place that sells plastic bags is strategic and easily accessible to customers, whether the shop that sells plastic bags provides shipping services Rathod, (2016).. The results of this study indicate that the place significantly influences customer satisfaction using plastic bags. If users think that stores that sell plastic bags have a strategic and easily accessible place, the level of customer satisfaction with the product also increases. The results obtained from this study are the place to influence customer satisfaction. The location of inconvenience for consumers causes dissatisfaction between consumers which subsequently has a negative effect on the organization (Situmorang, Sumarwan, Simanjuntak, 2018).. These results are also consistent with the results of research from the services provided to customers are an important basis for getting customer satisfaction (Ohrabi, Hanbolooki, & Hazavi, (2017). . From these results, it can be concluded that the product or item is not the only variable that affects customer satisfaction, but a comfortable place also affects customer satisfaction.

5.4. Promotion Significantly Affect Customer Satisfaction

To prove the relationship between promotion and customer satisfaction, there are several indicators to measure customer satisfaction, namely: whether stores that sell plastic bags often do promotions through social media and whether stores that sell plastic bags provide discounts for purchasing plastic bags in the number of parties. The results of this study indicate that the promotion significantly influences customer satisfaction using plastic bags. If users think that stores that sell plastic bags have good and profitable promotions, the level of customer satisfaction with the product also increases. The results obtained from this study are promotions that affect customer satisfaction Ernesto, Ellitan, Handayani, (2021).

These results are consistent with the results of research from Anjani, & Waluyati, (2018). Promotional activities must be honest, information based on truth, transparency, and full sincerity to help increase customer satisfaction. These results are also consistent with the results of research from Rathod, (2016). stated that promotion is an important thing that must be done to open new market opportunities and expand marketing networks. From these results, it can be concluded that the product is not the only variable that affects customer satisfaction, but promotion also affects customer satisfaction.

5.5. Customer Satisfaction Significantly Affect Customer Loyalty

To prove the relationship between customer satisfaction and customer loyalty, there are several indicators to measure customer loyalty, namely: whether overall plastic bag products function properly; whether the price of a plastic bag matches the quality of the product; is the shop that sells plastic bags easily accessible; and whether the promotion is satisfying (Ohrabi, Hanbolooki, & Hazavi, (2017).. The results of this study indicate that overall the customer is satisfied with the quality of the product, the price offered, the place that is easily accessible and the promotions that have been carried out. Every satisfied customer should spread positive news to others. Furthermore, satisfaction is the main driver of loyalty and for that the customer must be very satisfied. These results are also consistent with research results from several studies have shown that customer satisfaction has a significant impact on customer loyalty Anjani, & Waluyati (2018).. From these results, it can be concluded that customer satisfaction has a significant impact on customer loyalty.

5.6. Indirect Effect of Customer Satisfaction

There are four hypotheses that have an indirect effect on customer satisfaction: the first is customer satisfaction as an intermediary between products and customer loyalty; customer satisfaction as a mediator between price and customer loyalty; customer satisfaction as a mediator between place and customer loyalty; customer satisfaction as a mediator between promotion and customer loyalty (Ohrabi, Hanbolooki, & Hazavi, 2017). The results of the four hypotheses, two results from significant results and two others do not show significant results, which means customer satisfaction only mediates the place and promotion and customer loyalty. The mediating effect of customer satisfaction in the relationship between marketing mix and customer loyalty shows good results, meaning customer satisfaction has an important role in marketing mix on customer loyalty Anjani, & Waluyati, . (2018).. This means great product, price, place, promotion will not only produce satisfied customers, but also results in consumer confidence in plastic bags. When customers are satisfied with products with high involvement, customers do not need to be loyal because of other dominant factors in forming customer loyalty.

6. Conclusion

The purpose of this study is to analyze the effect of marketing mix and customer loyalty through customer satisfaction mediation. There are 9 hypotheses in this study; 5 of them tested the direct relationship and 4 of them tested the indirect relationship. According to the data analysis and discussion in the previous chapter, the conclusion is as follows: First, product is proven to affects customer satisfaction but not significantly, which means the hypothesis are rejected. Furthermore, that means to increase customer satisfaction by users that plastic bags give them benefits, companies that produce plastic bags must improve product quality. Second, price is proven to affect customer satisfaction but is not significant, which means the hypothesis is rejected. Furthermore, it means to increase customer satisfaction by users that plastic bags give them benefits, the price given must be in accordance with the quality of the product. Third, place has been proven to significantly affect customer satisfaction in plastic bags. This shows that the high value felt by users can also produce high customer satisfaction with plastic bags. Considering a strategic location and easily accessible by customers has good value so that plastic bag users feel overall satisfied with plastic bags. Fourth, promotion is proven to significantly affect customer satisfaction in plastic bags. This shows that the high value felt by users can also produce high customer satisfaction with plastic bags. Assuming an attractive promotion for customers has good value so that plastic bag users are overall satisfied with plastic bags. Fifth, it is not only proven to have a direct effect on customer loyalty, customer satisfaction is also proven to mediate the relationship between product, price, place, promotion and

customer loyalty. Therefore, the quality of the product and the price offered, the strategic location and the attractive promotion of the plastic bag also mean that it will affect customer loyalty indirectly through user satisfaction itself.

Limitation and Suggestion

This study has several limitations. Limitations in this study are: Variable price only has two indicators that cause results cannot be maximized. One of the instruments has a problem, so the results of many studies are rejected / invalid. The results of this study had the effect of the majority of respondents who did not match the research data so that some of the research results were rejected According to the conclusions that have been stated, there are a number of suggestions that can be used as considerations for future research and for plastic bag companies and government policies. For future research, it is recommended to enlarge the sample size so that the data collected can produce more reliable and more accurate results. It is also suggested that future researchers can conduct further research on product, price and variable places that do not significantly affect customer loyalty.

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