

ANALYSIS OF PRODUCT QUALITY, PRICE, PROMOTION, AND LOCATION ON CUSTOMER LOYALTY MEDIATED BY CUSTOMER SATISFACTION AT MSEM_s MILLENNIAL SNACKS KEDUNGPRING DISTRICT STRUCTURAL EQUATION MODELING (SEM) - PARTIAL LEAST SQUARE (PLS) METHOD

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Article Info	ABSTRACT
Keyword: Product Quality, Price, Promotion, Location, Customer Loyalty, Consumer Satisfaction SEM-PLS	This study used the Structural Equation Modeling (SEM) method - Partial Least Square (PLS), and location on customer loyalty mediated by customer satisfaction at MSEM _s Millennial Snacks Kedungpring District. The population in this study were customers of the MSEM _s Kedungpring District Millennial Snacks, which used a quantitative approach with a sample taken using the slovin technique, resulting in 151 respondents. Data was collected through a questionnaire with a Likert scale, with SEM analysis using the Smart PLS Version 3.0 application, by testing the outer model, inner model, mediation test, and hypothesis testing. The results showed that product quality (X1) on customer loyalty (Y) had a positive but insignificant effect, price (X2) on customer loyalty (Y) had a negative and insignificant effect, promotion (X3) on customer loyalty (Y) had a positive and significant effect, location (X4) on customer loyalty (Y) had a positive and significant effect, product quality (X1) on customer satisfaction (Z) has a positive and significant effect, price (X2) on customer satisfaction (Z) has a positive and significant effect, promotion (X3) on customer satisfaction (Z) has a negative and insignificant effect, location (X4) on customer satisfaction (Z) has a positive and significant effect, customer satisfaction (Z) on customer loyalty (Y) has a positive and significant effect.

INTRODUCTION

MSMEs have become a major sector in the Indonesian economy, including the MSMEs Millennial Snacks in Kedungpring, Lamongan, which offers unique culinary delights for snack lovers. Challenges and opportunities in the aspects of product quality, price, promotion, and location affect customer loyalty, with customer satisfaction as a mediator. Customer satisfaction determines purchasing decisions and is influenced by needs, costs, feedback, and psychological factors. Businesses need to deliver quality products, competitive prices, and added value. According to

Harjono, A. P., *et al.* (2024), satisfaction occurs when the product meets customer expectations, while dissatisfaction arises if expectations are not met. Companies that are able to adjust products to market demand tend to increase customer purchasing decisions.

Based on this background, the authors want to conduct research with the title “Analysis of Taste, Product Quality, Price, Promotion, and Location on Customer Loyalty Mediated by Consumer Satisfaction at MSMEs Millennial Snacks Kedungpring District Structural Equation Modeling (SEM) Method Partial Least Square (PLS)”.

RESEARCH METHODS

In this study, researchers used quantitative methods and were taken from the population of MSME customers of Millennial Snacks in Kedungpring District. This study used a sample of 151 samples. The analysis method used is SEM and uses the PLS 3.0 test tool by using the Inner model test, Outer model test, Mediation test, and Hypothesis testing.

RESULTS AND DISCUSSION

1. Validity Test

a) Convergent Validity

Convergence validity is a measure used to describe the extent to which indicators correlate positively with other indicators on the same construct. The rule of thumb used for convergent validity is Outer loading > 0.70, and Average Variance Extracted (AVE) > 0.50.

Table 1 Convergent Validity

Variabel	Indicator	Outer Loading	AVE	Description
Product Quality (X1)	1	0.851	0.625	VALID
	2	0.735		
	3	0.790		
	4	0.796		
	5	0.748		
	6	0.745		
	7	0.803		
	8	0.812		
Price (X2)	1	0.827	0.684	VALID
	2	0.838		
	3	0.831		
	4	0.812		
Promotion (X3)	1	0.853	0.733	VALID
	2	0.854		
	3	0.861		
Location (X4)	1	0.836	0.721	VALID
	2	0.876		
	3	0.879		
	4	0.803		
Customer Loyalty (Y1)	1	0.817	0.807	VALID
	2	0.808		
	3	0.816		
	4	0.845		
	5	0.807		
Customer Satisfaction (Z)	1	0.842	0.742	VALID
	2	0.871		
	3	0.825		
	4	0.906		

Source : Data from SmartPLS 3.0 version (2025)

The data confirms that all variables product quality, price, promotion, location, customer loyalty, and satisfaction are valid, as their Convergent Validity exceeds 0.70 and AVE exceeds 0.50.

b) Discriminant Validity

Discriminant Validity is assessed using the Fornell-Larcker Criterion and Cross Loading. The Outer Loading of each indicator must exceed the Cross Loading of other constructs, with a value > 0.70.

Table 2 Discriminant Validity

	(X2) PRICE	(Z) CUSTOMER SATISFACTI ON	(X1) PRODUCT QUALITY	(X4) LOCATI ON	(Y) CUSTOMER LOYALTY	(X3) PROMOTI ON
X1.1	0.737	0.674	0.851	0.675	0.690	0.709
X1.2	0.668	0.763	0.775	0.613	0.692	0.705
X1.3	0.612	0.593	0.790	0.568	0.580	0.619
X1.4	0.659	0.679	0.796	0.551	0.649	0.628
X1.5	0.624	0.589	0.748	0.532	0.594	0.719
X1.6	0.657	0.579	0.745	0.531	0.488	0.640
X1.7	0.691	0.683	0.803	0.612	0.718	0.623
X1.8	0.700	0.726	0.812	0.640	0.698	0.605
X2.1	0.827	0.726	0.658	0.583	0.622	0.562
X2.2	0.838	0.673	0.713	0.702	0.675	0.617
X2.3	0.831	0.692	0.724	0.605	0.631	0.593
X2.4	0.812	0.690	0.710	0.570	0.566	0.592
X3.1	0.576	0.518	0.693	0.525	0.606	0.853
X3.2	0.662	0.633	0.740	0.551	0.605	0.854
X3.3	0.594	0.633	0.694	0.569	0.680	0.861
X4.1	0.589	0.596	0.591	0.836	0.645	0.594
X4.2	0.629	0.710	0.655	0.876	0.715	0.583
X4.3	0.624	0.630	0.596	0.879	0.635	0.466
X4.4	0.675	0.732	0.691	0.803	0.709	0.532
Y1	0.563	0.625	0.653	0.637	0.817	0.570
Y2	0.635	0.675	0.636	0.615	0.808	0.586
Y3	0.647	0.724	0.696	0.697	0.816	0.651
Y4	0.586	0.677	0.672	0.680	0.845	0.577
Y5	0.654	0.739	0.677	0.640	0.807	0.633
Z1	0.749	0.842	0.717	0.649	0.690	0.572
Z2	0.707	0.871	0.706	0.715	0.751	0.606
Z3	0.701	0.825	0.752	0.639	0.703	0.613
Z4	0.740	0.906	0.727	0.719	0.756	0.615

Source : Data processed from SmartPLS 3.0 version (2025)

The Discriminant Validity of all variables is valid, as the Cross Loading value exceeds 0.70.

1. Reliability Test

The reliability test measures consistency using Cronbach's Alpha and Composite Reliability. Values > 0.70 indicate reliability, while > 0.60 is still acceptable.

Table 3 Composite Reliability dan Cronbach's Alpha

	Composite Reliability	Cronbach's Alpha	Description
Product quality (X1)	0.930	0.914	RELIABEL
Price (X2)	0.897	0.846	

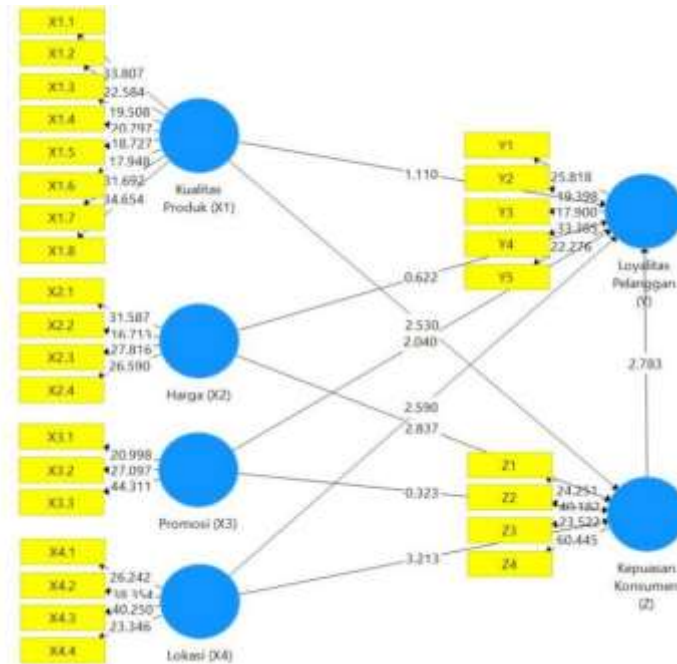
Promotion (X3)	0.891	0.818	
Location (X4)	0.912	0.871	
Customer loyalty (Y)	0.911	0.877	
Customer satisfaction(Z)	0.920	0.884	

Source : Data processed from SmartPLS 3.0 version (202

The Composite Reliability and Cronbach's Alpha values for all variables exceed 0.70, indicating reliability.

2. Structural Model (Inner Model)

This model describes the relationship between latent variables that are built based on the substance of the theory.



Source : Data processed from SmartPLS 3.0 version (2025)

a) R-square

R-Square measures how well the endogenous construct is explained by the exogenous construct, ranging from 0 to 1. A value of 0.25 is weak, 0.50 is moderate, and 0.75 is strong.

Table 5 R-square

	<i>R-square</i>	<i>R-square Adjusted</i>
Customer loyalty	0.790	0.784
Customer satisfaction	0.797	0.793

Source : Data processed from SmartPLS 3.0 version (2025)

The R-Square values indicate a strong influence of product quality, price, promotion, and location on customer loyalty (0.790, adjusted 0.784) and customer satisfaction (0.797, adjusted 0.793).

b) Goodness of Fit

In providing an overview of the extent to which the model fits the existing empirical data. With the SRMR testing criteria < 0.10, it is said that the model fits.

Table 6 Goodness of Fit

	<i>Saturated Model</i>	<i>Estimated Model</i>
SRMR	0.066	0.066

Source : Data processed from SmartPLS 3.0 version (2025)

The table above explains that the SRMR value of 0.066 is declared fit because it is less than 10.

3. Mediation Test

In mediation tests, a P-Value > 0.05 is negative, while < 0.05 is positive. Path analysis measures direct and indirect effects, with coefficients ranging from -1 to +1. A value closer to +1 indicates a stronger effect, and P-Value > 0.05 signifies significance.

Table 7 Path Coefficient

	<i>Original Sample</i>	<i>Sample Mean (M)</i>	<i>Standard Deviation (STDEV)</i>	<i>T Statistics (O/STDEV)</i>	<i>P Value</i>
Product quality→Customer loyalty	0.168	0.161	0.142	1.183	0.237
Product quality→Customer satisfaction	0.364	0.360	0.151	2.413	0.016
Price→Customer loyalty	-0.079	-0.081	0.124	0.635	0.526
Price→Customer satisfaction	0.344	0.347	0.115	3.003	0.003
Promotion→Customer loyalty	0.183	0.192	0.091	2.007	0.045
Promotion→Customer satisfaction	-0.029	-0.024	0.096	0.299	0.765
Location→Customer loyalty	0.292	0.282	0.112	2.261	0.009
Location→Customer satisfaction	0.280	0.279	0.094	2.984	0.003
Customer satisfaction→Customer loyalty	0.408	0.418	0.145	2.813	0.005

Source : Data processed from SmartPLS 3.0 version (2025)

In the Path Coefficient table above, Promotion, location, and customer satisfaction positively and significantly impact customer loyalty (P-Value < 0.05). Product quality positively affects customer loyalty but is insignificant (P-Value > 0.05). Price negatively impacts customer loyalty and is insignificant (P-Value > 0.05). Product quality, price, and location positively and significantly influence customer satisfaction (P-Value < 0.05). Promotion negatively affects customer satisfaction and is insignificant (P-Value > 0.05).

4. Hypothesis

Hypothesis testing analyzes direct and indirect effects using T-Statistic and P-Value. P-Value< 0.05 is accepted, and T-Statistic must exceed 1.64 (one-tailed). Results are obtained through Path Coefficients bootstrapping.

DISCUSSION

H1: Effect of Product quality on Customer loyalty

The product quality variable on customer loyalty has a Coefficient value of 0.168, T-Statistic $1.183 < 1.96$, P-Value $0.237 > 0.05$, indicating a positive but insignificant effect. This indicates that although product quality increases satisfaction, other factors such as price, service, and consumer experience play a greater role in shaping loyalty.

The results of this study are not in line with the findings of Muhtarom, A., *et al.* (2023), who found that product quality has a positive but insignificant effect on customer loyalty. Improving product quality alone is not enough without supporting factors such as competitive prices, good service, and brand involvement in building long-term relationships.

H2: Effect of Price on Customer loyalty

The price variable on customer loyalty has a coefficient value of -0.079, T-Statistic $0.635 < 1.96$, and a P-Value $0.526 > 0.05$, showing a negative and insignificant effect. This indicates that although competitive prices attract customers, factors such as product quality, service, and experience play a greater role in shaping loyalty.

The results of the study are not in line with the findings of Jennifer, J. (2023), who found that price has a positive and significant effect on customer loyalty. The study shows that the right pricing strategy, such as competitive pricing or discounts, can increase loyalty. This difference indicates that the effect of price varies depending on industry context, market segmentation, and other factors.

H3: Effect of Promotion on Customer loyalty

The promotion variable on customer loyalty has a Coefficient value of 0.183, T-Statistic $2.007 > 1.96$ and the P-Value $0.045 < 0.05$, indicating a positive and significant influence. Which means, the more effective the promotion, the higher the customer loyalty.

This research is in line with the findings of Farisi, S., *et al.* (2020) which found that promotion has a positive and significant effect on customer loyalty, which means that the better the promotion, the higher the customer loyalty.

H4: Effect of Location on Customer loyalty

The location variable on customer loyalty has a Coefficient value of 0.292, T-Statistic $2.261 > 1.96$, P Value $0.009 < 0.05$ indicates that the effect is positive and significant. This means that the more strategic and accessible the location of a business, the higher the likelihood of customers remaining loyal to use the product or service.

This research is in line with the findings of Sulistiyo, T. D., *et al.* (2024). The study found that strategic location has a significant effect on customer loyalty, both directly and through the mediation of customer satisfaction. A strategic location provides easy access to business centers and important facilities, which significantly increases customer satisfaction and loyalty.

H5: Effect of Product quality on Customer satisfaction

The product quality variable on customer satisfaction has a Coefficient value of 0.364, which indicates that product quality has a positive and significant relationship with customer satisfaction. T-Statistic $2.413 > 1.96$, P Value $0.016 < 0.05$ indicates that the effect is significant. High-quality products meet consumer expectations, fulfill functional needs, and enhance overall satisfaction.

These findings align with Sayedi, F., *et al.* (2023) and Musa, M., (2022), which found product quality significantly affects satisfaction. Enhancing quality boosts satisfaction, leading to positive recommendations and higher sales.

H6: Effect of Price on Customer satisfaction

The price variable on customer satisfaction has a Coefficient value of 0.344, T-Statistic $3.003 > 1.96$, P Value $0.003 < 0.05$ indicates that the effect is significant. Consumers tend to feel satisfied when the price offered is in accordance with the quality of the product or service received. Prices that are competitive and comparable to the perceived value of consumers can increase their level of satisfaction.

This research is in line with the findings of Ardini, R. L., *et al.* (2023). The study found that price has a positive and significant effect on customer satisfaction. This study also shows that the right pricing strategy can increase customer satisfaction and business competitiveness.

H7: Effect of Promotion on Customer satisfaction

The promotion variable on customer satisfaction has a Coefficient value of -0.299, T-Statistic $0.299 < 1.96$, P Value $0.765 > 0.05$, indicating that the effect is not significant. This indicates that promotion can increase product awareness and attractiveness, but customer satisfaction is more influenced by quality, price, and direct experience. If the promotion does not match reality, customers do not automatically feel more satisfied.

This research differs from Rachmad Y. Z., et al. (2023), who found that effective promotions positively impact customer satisfaction. The variation suggests that promotion effects depend on type, consumer characteristics, and perception factors.

H8: Effect of Location on Customer satisfaction

The location variable on customer satisfaction has a Coefficient value of 0.280, T-Statistic $2.989 > 1.96$, P Value $0.003 < 0.05$, indicating that the effect is positive and significant. This indicates that a strategic location that is easily accessible and close to the center of customer activity increases comfort and convenience, thereby increasing customer satisfaction.

The results of this study are in line with research conducted by Nasution, S. U. A., (2022). The study found that location has a positive and significant effect on customer satisfaction. Strategic location selection, such as crowded areas, easy to reach, and convenient, improves customer experience and business attractiveness

H9: Effect of Customer satisfaction on Customer loyalty

The customer satisfaction variable on customer loyalty has a Coefficient value of 0.408, T-Statistic $2.813 > 1.96$, P Value $0.005 < 0.05$, indicating that the effect is positive and significant. The more satisfied customer are, the more likely they are to remain loyal, make repeat purchases, and be loyal to the brand.

This finding is in line with research conducted by Ismi, R. N., et al (2023) The study found that customer satisfaction has a positive and significant effect on customer loyalty, indicating that satisfied customers tend to be more loyal to the products or services they use.

CONCLUSION

Product quality on customer loyalty had a positive but insignificant effect. Price on customer loyalty had a negative and insignificant effect. Promotion on customer loyalty had a positive and significant effect. Location on customer loyalty had a positive and significant effect. Product quality on customer satisfaction has a positive and significant effect. Price on customer satisfaction has a positive and significant effect. Promotion on customer satisfaction has a negative and insignificant effect. Location on customer satisfaction has a positive and significant effect. Customer satisfaction on customer loyalty has a positive and significant effect.

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