



The Influence Of Product Quality, Price, And Environmental Awareness On Consumer Loyalty Through Consumer Satisfaction In Palm Oil Smees In Medan Sinembah Village

Aulia Sofiea Putri ¹⁾; Adelina Lubis ²⁾; Ikbar Pratama ³⁾

^{1,2,3)} Master of Management, Universitas Medan Area, Indonesia

Email: ¹⁾ auliasofieaputri@gmail.com

How to Cite :

Putri, A, S., Lubis, A., Pratama, I. (2026). The Influence Of Product Quality, Price, And Environmental Awareness On Consumer Loyalty Through Consumer Satisfaction In Palm Oil Smees In Medan Sinembah Village. EKOMBIS REVIEW: Jurnal Ilmiah Ekonomi Dan Bisnis, 14(4). DOI: <https://doi.org/10.37676/ekombis.v14i4>

ARTICLE HISTORY

Received [12 May 2026]

Revised [15 October 2026]

Accepted [19 October 2026]

KEYWORDS

Product Quality, Price, Environmental Awareness, Consumer Satisfaction, Consumer Loyalty.

This is an open access article under the [CC-BY-SA](https://creativecommons.org/licenses/by-sa/4.0/) license



ABSTRACT

This study aims to analyze the influence of product quality, price, and environmental awareness on consumer loyalty through consumer satisfaction at broom fiber (Sapu Ijuk) MSMEs in Medan Sinembah Village. This research employed a quantitative approach using Partial Least Squares-Structural Equation Modeling (PLS-SEM). Primary data were collected through questionnaires distributed to 140 respondents using purposive sampling. Data analysis was conducted using SmartPLS to examine both direct and indirect relationships among variables. Previous research has been dominated by modern industrial or service products, but this research discusses environmentally friendly traditional products, the research on which is still limited. The results indicate that product quality, price, and environmental awareness have positive and significant effects on consumer satisfaction. These three variables also have positive and significant effects on consumer loyalty. Furthermore, consumer satisfaction has a positive and significant effect on consumer loyalty. Consumer satisfaction partially mediates the relationships between product quality, price, and environmental awareness with consumer loyalty. The R-square values show that product quality, price, and environmental awareness explain of the variance in consumer satisfaction, while consumer loyalty is explained by the proposed model, indicating moderate to substantial explanatory power. These findings suggest that consumer loyalty in broom fiber MSMEs is influenced not only by functional factors such as product quality and price, but also by environmental awareness, with consumer satisfaction

serving as a key mediating factor. This study provides practical implications for MSME practitioners to improve product quality, establish appropriate pricing strategies, and strengthen environmentally friendly values in order to enhance consumer satisfaction and loyalty sustainably.

INTRODUCTION

The issue of environmental sustainability in recent decades has driven a change in consumer behavior towards a preference for environmentally friendly products. Consumers not only consider the quality and price aspects, but also the ecological impact of the products consumed. This condition is an opportunity as well as a challenge for Micro, Small, and Medium Enterprises (MSMEs) to present competitive and sustainable products. MSMEs have an important role in the Indonesian economy, both in contributing to the Gross Domestic Product (GDP) and labor absorption (Ariani, et al., 2024). One of the MSMEs based on environmentally friendly products is the palm oil broom industry in Medan Sinembah Village, which utilizes natural materials and a simple production process. Despite having ecological value, these MSMEs face competition with more modern synthetic products, thus demanding strategies to increase consumer satisfaction and loyalty. Based on the results of the pre-survey, product quality, price, and consumer environmental awareness of palm oil broom are relatively good, and consumer satisfaction tends to be positive. Nevertheless, consumer loyalty has not shown an optimal level. This indicates a gap between product value perception and consumer loyalty behavior.

Previous research has shown that product quality and price have an effect on consumer satisfaction, but it doesn't always have a direct impact on loyalty. In addition, environmental awareness also plays a role in shaping consumer preferences for environmentally friendly products. However, studies on the role of consumer satisfaction as a mediating variable in the context of traditional environment-based products are still limited. Therefore, this study aims to analyze the influence of product quality, price, and environmental awareness on consumer loyalty with consumer satisfaction as a mediating variable in Sapu Ijuk MSMEs in Medan Sinembah Village. This research is expected to contribute to the development of consumer behavior literature and become the basis for the formulation of sustainable product-based MSME marketing strategies.

LITERATURE REVIEW

Consumer satisfaction is an important concept in marketing that is closely related to business continuity and customer loyalty. Satisfaction is defined as the feeling of pleasure or disappointment that arises after comparing the performance of a product with the expectations of consumers (Kotler & Keller, 2016). If the performance of the product meets or exceeds expectations, then consumers will feel satisfied, while non-conformity will cause disappointment (Kotler, et al., 2014). Satisfaction is the result of cognitive and affective processes that involve the evaluation of benefits and costs and is influenced by the perception of quality, product image, and emotional value (Kotler & Keller, 2016). In addition, satisfaction is also influenced by social interactions such as recommendations and other consumer experiences. In the long run, satisfaction is the basis for the formation of consumer loyalty, because satisfied customers tend to make repeat purchases and recommend products to others (Ishak & Luthfi, 2011).

Consumer loyalty is a customer's commitment to continue to use a product or brand consistently in the long term (Amiroh & Puspitadewi, 2021). Loyalty is formed from continuous satisfaction with the product or service used (Satrio & Susanto, 2023). Loyalty is not only shown through repurchases, but it also reflects the consumer's emotional attachment to the brand. Loyalty has a strategic role for companies because it can increase revenue and reduce marketing costs. In fact, an increase in loyalty by 5% can increase profits by 25%–95% (Rita, 2014). Loyalty

consists of two main dimensions, namely behavioral loyalty and attitude loyalty. Therefore, companies need to build loyalty through improving service quality, product innovation, and managing customer relationships in a sustainable manner (Mashuri, 2020; Nurcahyadi, 2024).

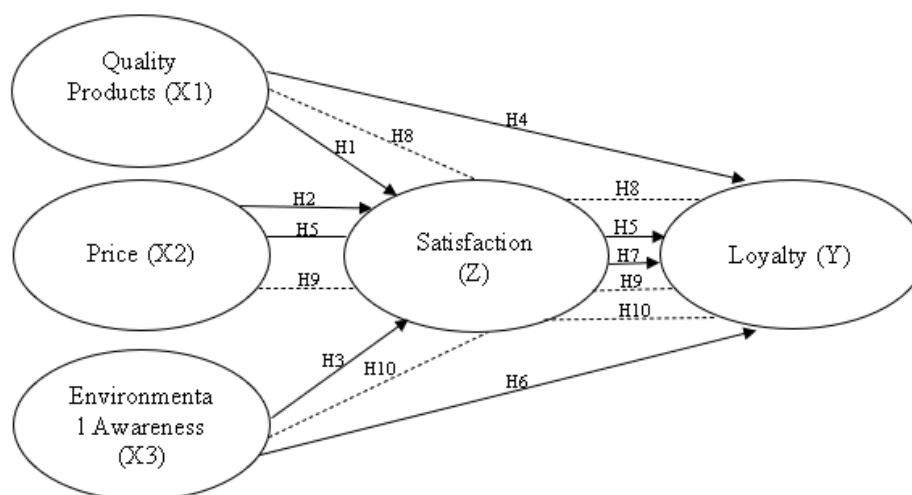
Product quality is the ability of a product to meet or exceed consumer expectations (Putro, 2014). Product quality encompasses various dimensions, such as performance, features, reliability, suitability, durability, ease of service, aesthetics, and quality perception (Purnamawati, *et al.*, 2020). These dimensions are important indicators in assessing the value of a product in the eyes of consumers. Product quality also reflects the company's competence in producing products that suit market needs. High-quality products will increase consumer trust and satisfaction, as well as strengthen the company's image. Therefore, companies are required to continue to innovate and maintain quality consistency to remain competitive (Putro, 2014).

Price is an important element in the marketing mix that influences consumer purchasing decisions. Price is defined as the value that consumers must pay to benefit from a product or service (Kotler, 2012). Apart from being a monetary value, price also reflects the perception of value that consumers feel towards the product. Pricing is not only influenced by cost and demand, but also by marketing strategies, competitive conditions, and consumer perceptions (Permata, *et al.*, 2020). In the concept of value-based pricing, consumers are willing to pay more if the perceived value is higher than the price paid. Conversely, if the price is considered uncomparable, consumers will switch to other products. Therefore, pricing strategies such as penetration pricing, skimming pricing, and competitive pricing need to be adjusted to market conditions (Hotimah & Supendi, 2025).

Environmental awareness is an individual's attitude and behavior in preserving the environment (Ramadhan *et al.*, 2024). In the context of marketing, this awareness is reflected in consumers' preference for eco-friendly and sustainable products. The increase in environmental awareness is triggered by global issues such as climate change and ecosystem destruction (Baiquan, *et al.*, 2024). The concept of green consumerism explains that consumers tend to choose products based on their environmental impact (Qurniawati, 2018). Products that use natural, recyclable, and environmentally friendly materials are more in demand by consumers who have high awareness. This encourages companies to implement green marketing strategies in their business activities. In addition, environmental awareness is also related to corporate social responsibility (CSR). Companies that show concern for the environment will gain a positive image, which can ultimately increase consumer trust and loyalty (Gupita, 2025).

Based on the previous description, the following research model was made:

Figure 1. Conceptual Framework



METHODS

This study uses a quantitative approach with a survey method to analyze the influence of product quality, price, and environmental awareness on consumer loyalty through consumer satisfaction. The population in this study is all consumers of palm oil broom products as many as 250 people. The sampling technique uses purposive sampling, which is the selection of samples based on certain criteria that are relevant to the research objectives (Arikunto, 2019). The number of samples was determined as many as 140 respondents by referring to the sample size guideline, which is 5-10 times the number of research indicators (Hair, et al., 2014). The type of data used consists of primary data and secondary data. The research instrument uses a Likert scale with a value range of 1–5. The data analysis technique uses Structural Equation Modeling based on Partial Least Squares (PLS-SEM). The analysis was carried out through three stages, namely external model evaluation (validity and reliability), inner model evaluation (relationship between variables), and mediation test using the Variance Accounted for (VAF) approach. Significance testing was carried out using the bootstrapping technique at a significance level of 5% ($p\text{-value} \leq 0.05$).

RESULTS

Respondent Characteristics

The characteristics of the respondents in this study included gender, age, occupation, number of purchases, and income.

Table 1. Description of Respondent Characteristics

No.	Characteristics	Categories	Quantity
1.	Gender	Male	56
		Women	84
2.	Age	17-25 Years	10
		26-30 Years	25
		31-35 Years	26
		36-40 Years	38
		41-45 Years	23
		>46 Years	18
3.	Employment	Students	6
		Students	24
		PNS	11
		Private employees	45
		Self-employed	28
		Others	26
4.	A lot of purchases	2 times	37
		>2 times	103
5.	Revenue	<1 Million	17
		1 million – 3 million	62
		3 million – 5 million	29
		5 million – 8 million	28
		>8 million	4

Source: Primary Data Processed (2025)

Based on Table 1, respondents were dominated by women (84 people) compared to men (56 people). In terms of age, the majority are in the range of 36-40 years (38 people), followed by 31-35 years (26 people) and 26-30 years (25 people), which shows that consumers are in the productive age group. Judging from work, most of the respondents were private employees (45 people), followed by the self-employed (28 people) and students (24 people). Based on the frequency of purchases, the majority of respondents have made purchases more than twice (103 people), which indicates a tendency to consumer loyalty. In terms of income, most respondents had an income between 1 million and 3 million (62 people), which shows that palm oil broom products tend to be consumed by people with a middle income level.

Evaluation of the Outer Model

Table 2. Outer Loading Testing

	Price (X2)	Satisfaction Consumer (Z)	Awareness Environment (X3)	Quality Products (X1)	Loyalty Consumer (Y)
X1.1				0.841	
X1.2				0.883	
X1.3				0.771	
X1.4				0.860	
X1.5				0.868	
X1.6				0.806	
X1.7				0.876	
X2.1	0.894				
X2.2	0.802				
X2.3	0.846				
X2.4	0.892				
X3.1			0.917		
X3.2			0.895		
X3.3			0.868		
Y1					0.847
Y2					0.849
Y3					0.819
Z1		0.877			
Z2		0.872			
Z3		0.842			

Source: *SmartPLS 3.2.8 Output Results (2026)*

It is known that all outer loading values > 0.7, which means that they have met the validity requirements based on *the outer loading* value.

Table 3. Average Variance Extracted (AVE) and Composite Reliability

Variable	AVE	CR	Cronbach Alpha
Price (X2)	0.739	0.919	0.881
Satisfaction (Z)	0.746	0.898	0.830
Environmental Awareness (X3)	0.799	0.922	0.874
Product Quality (X1)	0.713	0.946	0.933
Loyalty (Y)	0.703	0.877	0.789

Source: *SmartPLS 3.2.8 Output Results (2026)*

The AVE value > 0.5 and CR and Cronbach Alpha > 0.7, so that all constructs are declared valid and reliable.

Table 4. Fornell & Larcker

	Price (X2)	Consumer Satisfaction (Z)	Environmental Awareness (X3)	Product Quality (X1)	Consumer Loyalty (Y)
Price (X2)	0.859				
Consumer Satisfaction (Z)	0.429	0.864			
Environmental Awareness (X3)	0.224	0.456	0.894		
Product Quality (X1)	0.103	0.422	0.149	0.844	
Consumer Loyalty (Y)	0.478	0.684	0.537	0.450	0.838

Source: *SmartPLS* 3.2.8 Output Results (2026)

The square root value of AVE in each variable is greater than the correlation between the other variables. The model meets the discriminant validity, reinforced with an HTMT value < 0.9.

Table 5. HTMT

	Price (X2)	Consumer Satisfaction (Z)	Environmental Awareness (X3)	Product Quality (X1)
Consumer Satisfaction (Z)	0.501			
Environmental Awareness (X3)	0.248	0.531		
Product Quality (X1)	0.129	0.477	0.165	
Consumer Loyalty (Y)	0.572	0.841	0.641	0.522

Source: *SmartPLS* 3.2.8 Output Results (2026)

Inner Model Evaluation

Table 6. Path Coefficient Test

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (O/STDEV)	P values
Product Quality (X1) -> Consumer Satisfaction (Z)	0.340	0.337	0.086	3.953	0.000
Price (X2) -> Consumer Satisfaction (Z)	0.319	0.318	0.087	3.690	0.000
Environmental Awareness (X3) -> Consumer Satisfaction (Z)	0.334	0.334	0.090	3.699	0.000
Product Quality (X1) -> Consumer Loyalty (Y)	0.234	0.230	0.082	2.849	0.004
Price (X2) -> Consumer Loyalty (Y)	0.238	0.235	0.083	2.863	0.004

Environmental Awareness (X3) -> Consumer Loyalty (Y)	0.289	0.284	0.090	3.196	0.001
Consumer Satisfaction (Z) -> Consumer Loyalty (Y)	0.351	0.357	0.119	2.958	0.003
Product Quality (X1) -> Consumer Satisfaction (Z) -> Consumer Loyalty (Y)	0.119	0.121	0.052	2.287	0.022
Price (X2) -> Consumer Satisfaction (Z) -> Consumer Loyalty (Y)	0.112	0.115	0.052	2.148	0.032
Environmental Awareness (X3) -> Consumer Satisfaction (Z) -> Consumer Loyalty (Y)	0.117	0.122	0.059	2.001	0.045

Source: *SmartPLS* 3.2.8 Output Results (2026)

All relationships between variables showed positive and significant influence (*t-statistics* > 1.96; *p-value* < 0.05). Consumer satisfaction has been shown to significantly mediate the relationship between independent variables and loyalty.

Table 7. R-Square

	<i>R-square</i>
Consumer Satisfaction (Z)	0.433
Consumer Loyalty (Y)	0.614

Source: *SmartPLS* 3.2.8 Output Results (2026)

The model was able to explain 43.3% satisfaction variation and 61.4% loyalty variation, demonstrating the model's considerable strength.

Table 8. Q-Square

	$Q^2 (=1 - SSE/SSO)$
Consumer Satisfaction (Z)	0.299
Consumer Loyalty (Y)	0.412

Source: *SmartPLS* Output Results 3.2.8 (2026)

A value of $Q^2 > 0$ indicates the model has good predictive relevance.

Table 9. Goodness of Fit Model

	<i>Estimated model</i>
SRMR	0.081

Source: *SmartPLS* 3.2.8 Output Results (2026)

An SRMR value of < 0.1 indicates a fit and suitable model for use.

DISCUSSION

The results of the study show that product quality has a positive and significant effect on consumer satisfaction. This indicates that the better the quality of the product, the higher the level of satisfaction felt by consumers. These findings are in line with Amir (2018), and supported by Sisrika & Prasajo (2025), Gunawan, *et al.*, (2023), and Fitri (2023). Price also has a positive and

significant effect on consumer satisfaction. This means that an affordable price that matches the benefits of the product will increase satisfaction. These results are consistent with Lestari (2019), and supported by Gunawan, *et al.*, (2023) and Budiman (2023). Environmental awareness also has a positive effect on consumer satisfaction. Consumers with high environmental awareness tend to feel more satisfied with environmentally friendly products. These findings are in line with Mawardi (2023) and Sisrika & Prasajo (2025).

Furthermore, product quality, price, and environmental awareness have been proven to have a positive effect on consumer loyalty. This shows that positive perceptions of these three variables encourage the formation of loyalty. These results are supported by Nyonyie *et al.* (2019), Rizayanti (2021), and Rita & Irwan (2024). Consumer satisfaction also has a significant effect on consumer loyalty, so it is a major factor in forming long-term relationships. These findings are in line with Amin (2023), and supported by Noviasari *et al.* (2024) and Harga, *et al.*, (2023). In addition, consumer satisfaction has been proven to be able to mediate the influence of product quality, price, and environmental awareness on consumer loyalty. This shows that loyalty is not only formed directly, but also through satisfaction. These findings are consistent with Herawati (2025), Alfareza (2024), Mamonto, *et al.*, (2024), and Tamara & Maharani (2024). Overall, the results of this study confirm that increased consumer loyalty can be achieved through product quality, the right price, and environmental awareness, with satisfaction as the main connecting factor

CONCLUSION

Based on the results of the study, it can be concluded that product quality, price, and environmental awareness have been proven to have a positive and significant effect on consumer satisfaction. In addition, these three variables also have a positive effect on consumer loyalty, which shows that a good perception of products will encourage consumers to remain loyal.

Consumer satisfaction plays a key factor in increasing loyalty, where satisfied consumers are more likely to make a repeat purchase and recommend products. Furthermore, consumer satisfaction has also been proven to be able to partially mediate the influence of product quality, price, and environmental awareness on consumer loyalty.

Thus, consumer loyalty is not only formed directly from product quality, price, and environmental awareness, but also through increased consumer satisfaction as a key connecting variable.

REFERENCES

- Adi, P. F. X., Nuddin, H., Khusaini, Gatot, C., & Faishal, A. (2024). The Influence Of Environmental Awareness And Green Marketing On Purchasing Decisions For Eco-Friendly Products Through Environmental Knowledge Of Eco-Friendly Packaging Consumers. *RJOAS: Russian Journal of Agricultural and Socio-Economic Sciences*, 1184(6), 36–44.
- Agusm, M., & Danang, S. (2025). Dampak Green arketing, Kesadaran Lingkungan, dan Brand Image Terhadap Loyalitas Konsumen Produk Ramah Lingkungan diYogyakarta. *J-CEKI: Jurnal Cendekia Ilmiah*.
- Albari, & Kartikasari, A. (2024). The Influence of Service Quality and Price on Customer Satisfaction. *Jurnal Manajemen Pemasaran Dan Perilaku Konsumen*, 3(3), 647–654. <https://doi.org/10.21776/jmppk.2024.03.3.08>
- Amin, L. S. A. (2023). Pengaruh Loyalitas Konsumen Terhadap Minat Pembelian Ulang Pada Produk Winmilk di Kota Cimahi, Indonesia. *International Journal Administration, Business & Organization*, 4(1), 63–74.

- Amir, M. (2018). Pengaruh Kualitas Produk Terhadap Kepuasan Konsumen Pengguna Notebook Acer Pada PT Genius Alva Makassar. *Akmen Jurnal Ilmiah*, 15(3). <https://ejurnal.nobel.ac.id/index.php/akmen/article/view/322>
- Amiroh, D. Z., & Puspitadewi, N. W. S. (2021). Hubungan Antara Kepuasan dengan Loyalitas Pelanggan di Hypermart Gresik. *Jurnal Penelitian Psikologi*, 08(01), 19.
- Ariani, A. D., Zouly, D., Cahyono, I., & Azizah, R. N. (2024). *Pemberdayaan UMKM sebagai Strategi Pemerintah untuk Mengurangi Kemiskinan di Indonesia Tahun 2020 – 2023*. 3(2), 91–103.
- Arikunto, S. (2019). *Prosedur Penelitian*. Jakarta: Rineka cipta
- Baiqun, I. M., Pertiwi, T. K., & Purwanto, S. (2024). The Role of Green Brand Image Awareness and Environmental Awareness on Purchasing Decisions by Controlling the Behavior of Potential Consumers of the Body Shop Mojokerto. *Indonesian Interdisciplinary Journal of Sharia Economics (IJSE)*, 7(1), 442–461.
- Budiman, A. N. (2023). The Influence of Price, Promotion, Product Quality, and Consumer Satisfaction on Purchasing Decisions of HAUS! 1(1), 21–31. <https://doi.org/10.58777/rbm.v1i1.20>
- Candra, E., & Sunaryanto, K. (2023). Pengaruh Harga, Kualitas Produk, Kualitas Pelayanan dan Kepuasan Pelanggan Terhadap Loyalitas Pelanggan. <https://doi.org/10.61292/birev.v1i5.53>
- Fadhila, D., Maftukhatusolikhah, M., & Azwari, P. C. (2024). Pengaruh Kesadaran Lingkungan, Iklan Ramah Lingkungan, Dan Harga Terhadap Minat Menggunakan Panel Surya Atap. *Jesya*, 7(2), 1926–1937. <https://doi.org/10.36778/jesya.v7i2.1739>
- Firmansyah, M. A. (2019). *Pemasaran Produk dan Merek (Planning & Strategy)*. Surabaya: CV Penerbit Qiara Media.
- Fitri, M. A. (2023). Pengaruh citra merek, kualitas produk dan harga terhadap kepuasan konsumen ac daikin cv central elektro. (JEMS) *Jurnal Entrepreneur Dan Manajemen Sains*, 4(1), 201–209. <https://doi.org/10.36085/jems.v4i1.4450>
- Adi, P. F. X., Nuddin, H., Khusaini, Gatot, C., & Faishal, A. (2024). The Influence Of Environmental Awareness And Green Marketing On Purchasing Decisions For Eco-Friendly Products Through Environmental Knowledge Of Eco-Friendly Packaging Consumers. *RJOAS: Russian Journal of Agricultural and Socio-Economic Sciences*, 1184(6), 36–44.
- Agusm, M., & Danang, S. (2025). Dampak Green arketing, Kesadaran Lingkungan, dan Brand Image Terhadap Loyalitas Konsumen Produk Ramah Lingkungan diYogyakarta. *J-CEKI: Jurnal Cendekia Ilmiah*.
- Albari, & Kartikasari, A. (2024). The Influence of Service Quality and Price on Customer Satisfaction. *Jurnal Manajemen Pemasaran Dan Perilaku Konsumen*, 3(3), 647–654. <https://doi.org/10.21776/jmppk.2024.03.3.08>
- Amin, L. S. A. (2023). Pengaruh Loyalitas Konsumen Terhadap Minat Pembelian Ulang Pada Produk Winmilk di Kota Cimahi, Indonesia. *International Journal Administration, Business & Organization*, 4(1), 63–74.
- Amir, M. (2018). Pengaruh Kualitas Produk Terhadap Kepuasan Konsumen Pengguna Notebook Acer Pada PT Genius Alva Makassar. *Akmen Jurnal Ilmiah*, 15(3). <https://ejurnal.nobel.ac.id/index.php/akmen/article/view/322>
- Amiroh, D. Z., & Puspitadewi, N. W. S. (2021). Hubungan Antara Kepuasan dengan Loyalitas Pelanggan di Hypermart Gresik. *Jurnal Penelitian Psikologi*, 08(01), 19.
- Ariani, A. D., Zouly, D., Cahyono, I., & Azizah, R. N. (2024). *Pemberdayaan UMKM sebagai Strategi Pemerintah untuk Mengurangi Kemiskinan di Indonesia Tahun 2020 – 2023*. 3(2), 91–103.
- Arikunto, S. (2019). *Prosedur Penelitian*. Jakarta: Rineka cipta
- Baiqun, I. M., Pertiwi, T. K., & Purwanto, S. (2024). The Role of Green Brand Image Awareness and Environmental Awareness on Purchasing Decisions by Controlling the Behavior of Potential Consumers of the Body Shop Mojokerto. *Indonesian Interdisciplinary Journal of Sharia Economics (IJSE)*, 7(1), 442–461.

- Budiman, A. N. (2023). The Influence of Price, Promotion, Product Quality, and Consumer Satisfaction on Purchasing Decisions of HAUS! 1(1), 21–31. <https://doi.org/10.58777/rbm.v1i1.20>
- Candra, E., & Sunaryanto, K. (2023). Pengaruh Harga, Kualitas Produk, Kualitas Pelayanan dan Kepuasan Pelanggan Terhadap Loyalitas Pelanggan. <https://doi.org/10.61292/birev.v1i5.53>
- Fadhila, D., Maftukhatusolikhah, M., & Azwari, P. C. (2024). Pengaruh Kesadaran Lingkungan, Iklan Ramah Lingkungan, Dan Harga Terhadap Minat Menggunakan Panel Surya Atap. *Jesya*, 7(2), 1926–1937. <https://doi.org/10.36778/jesya.v7i2.1739>
- Firmansyah, M. A. (2019). *Pemasaran Produk dan Merek (Planning & Strategy)*. Surabaya: CV Penerbit Qiara Media.
- Fitri, M. A. (2023). Pengaruh citra merek, kualitas produk dan harga terhadap kepuasan konsumen ac daikin cv central elektro. (JEMS) Jurnal Entrepreneur Dan Manajemen Sains, 4(1), 201–209. <https://doi.org/10.36085/jems.v4i1.4450>