

The Influence of Consumer Perceptions, Price and Product Quality on Purchasing Decisions for Tawas Natural Spray Deodorant

Rohmatul Fitriyah, Muslichah Erma Widiana, Ika Kharismawati

Universitas Bhayangkara Surabaya, Indonesia

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Abstract

This study aims to analyze how consumer perceptions, price, and product quality influence purchasing decisions for alum natural spray deodorants, especially for students at the Faculty of Economics and Business, Bhayangkara University Surabaya. A total of 84 respondents were sampled in this study, which were selected through purposive sampling technique with the application of the Slovin formula. Data collected through questionnaires filled by respondents using a Likert scale, and supported by literature data. The analysis methods used in this study include research instrument tests, classical assumption tests, multiple linear regression analysis, and hypothesis testing. The results showed that consumer perceptions, price, and product quality have an influence both partially and simultaneously on purchasing decisions for alum natural spray deodorants for students of the Faculty of Economics and Business, Bhayangkara University Surabaya.

Keywords: Consumer Perception, Price, Product Quality, Purchase Decision.

INTRODUCTION

Indonesia, as a country with a tropical climate, is always under the sun, making sweating unavoidable. For some people, excessive sweat production can lead to problems such as unpleasant body odor. Hygiene is an effort to maintain a healthy body, both physically and mentally. A person tends to feel more confident when their body smells good and refreshing. Deodorants work to eliminate body odor by inhibiting odor-causing bacteria and have antiperspirants to reduce sweating, while closing the pores of underarm skin. Additional fragrances also help mask the body odor.

Deodorant is currently a vital necessity for many, especially college students, as it is important for teenagers who are starting to realize the importance of maintaining physical health. This statement is in line with Anggraini's (2024) research which states that Body Odor is a health problem that can interfere with social relationships) College students, one of the lifestyle-sensitive social groups, often lack awareness about hygiene and health making deodorant an important secondary need. Antispray deodorant products are now rampant in the market, acting by inhibiting harmful side effects to health, so safer alternatives such as alum, which is antimicrobial in nature, are increasingly sought after. Consumers who are increasingly concerned about the environment prefer deodorants with eco-friendly packaging and ingredients.



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*Corresponding Author:

Email: rohmatulfitriyah12@gmail.com

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Wardhana (2022) states that management is a universal process in social and economic activities to achieve goals. Meanwhile, Afdhal (2023) defines it as a series of activities in organizational decision making. Bagus Handoko et al. (2021) state that management also utilizes art and science to organize human resources for the achievement of goals. Management, in essence, plays a role in optimizing organizational performance, by managing human, financial, technological, and material resources. According to Yanti & Idayanti (2022), marketing is an activity influenced by social, cultural, political, economic, and managerial factors, which allows individuals or groups to fulfill needs by creating, offering, and exchanging products. Firmansyah (2019) adds that consumer perception is a process when consumers process information about products based on experience and the influence of this information. This perception can change, especially if product claims are excessive so that they do not meet consumer expectations.

Arif Fakhruddin et al. (2022) write that price is the value for transactions, or how much money consumers have to pay for goods and services. Price is also an important factor that influences consumers' decision to buy, especially if it is deemed too expensive. Amri Nasution (2019) emphasizes that pricing tends to be oriented towards high profits and corporate image. Every entrepreneur must focus on how much profit can be made from the products or services they have. Therefore, pricing is often based on the amount of profit and revenue expected. However, as time progresses, pricing is no longer solely based on profit and revenue, but also considers other non-economic factors. One of the functions of pricing is to maintain the survival of the company.

Rosnaini (2017: 32) emphasizes that product quality is closely related to consumer satisfaction, being an important factor in purchasing decisions. Attractive product packaging also affects competitiveness in a competitive market. If the design is not in line with consumer trends, the product may be eliminated even though the *internal quality* is good. Product quality refers to the condition of an item that will be sold to consumers with high quality in the process of use. According to Cesariana (2022), product quality is an important factor that influences consumer decisions when buying a product. The better the quality of a product, the more customer interest in buying it will increase. The purpose of product quality is to ensure production results comply with standards and minimize production costs.

According to Nainggolan (2020: 36), purchasing decisions are the process by which consumers decide on the desired goods or services. The timing of purchases is often influenced by consumer attitudes towards urgent needs or scheduled purchases. Purchasing decisions are strongly influenced by marketing and consumer perceptions, and are closely related to the price and quality offered. Good quality, as Hanjaya (2020) says, creates trust and increases the likelihood of repeat purchases. Firmansyah, (2019) states that purchasing decisions are a problem-solving process carried out by individuals when choosing from two or more available behavioral options, and choosing actions that are considered most suitable for making purchases through the stages of decision making. The decision reflects the consumer's choice to buy or not buy a product. The decision-making process is an individual activity that is directly involved in obtaining and using the products offered. This shows that purchasing decisions are one of the stages in consumer behavior which forms the basis before entering post-purchase behavior and explains how individuals, groups and organizations choose, buy, use, and feel satisfaction from goods or services that meet their needs and wants. The purpose of consumer decisions is to understand how individuals decide to use their resources, namely time, energy, and money in consuming something, as well as how often they buy and use products or services. Thus, purchasing decisions try to meet the needs or desires of consumers by choosing the product that best suits their expectations, so

that the ultimate goal is that consumers feel satisfied and get the maximum value from the transactions that have been made.

With the growing digital technology, marketing for college students is now heavily influenced by social media and influencers. Students tend to choose products that are efficient, easy to use, and affordable. High-quality products usually enhance brand reputation which in turn increases customer loyalty. However, declining quality can damage brand image and affect purchasing decisions. Therefore, the author is interested in examining purchasing decisions from the perspective of consumer perception, price, and product quality.

METHODS

This research was conducted at the Faculty of Business Economics, Bhayangkara University Surabaya, starting in December 2024 until the data was fully obtained. This research is quantitative in nature and uses multiple linear regression analysis methods with the help of SPSS (*Statistical Package for the Social Sciences*) software to obtain precise results. The sample in this study includes 84 students from Bhayangkara University Surabaya. The independent variables considered in this study include consumer perception (X1), which includes openness, attentiveness, and interpretation; price (X2), which includes price affordability, price compatibility with quality, price competitiveness, and compatibility with benefits; and product quality (X3), which includes product variety, durability, accuracy of quality specifications, packaging appearance (aesthetics), and the best product quality compared to other brands. Meanwhile, the dependent variable is the purchase decision (Y), measured through the factors of product selection, brand, purchase location, purchase time, and payment method. Primary data was obtained through direct observation and filling out questionnaires, while secondary data was collected from articles, internet sources, and organizational documents. The multiple linear regression equation used is: $Y = a + b_1X_1 + b_2X_2 + b_3X_3 + e$.

ANALYSIS AND DISCUSSION

In this study, there were 84 participants consisting of students from the Faculty of Economics and Business, Bhayangkara University Surabaya. The details are 58 students from management department, 9 students from development economics department, and 17 students from accounting department. Of these, there were 79 female participants and 5 male participants. When viewed by age, 7 people are 19 years old, 74 people are in the range of 20-25 years, and 3 people are in the age group 26-30 years.

Validity testing is intended to determine whether the questionnaire used by researchers is appropriate and accurate in measuring and collecting data from participants. A validity test is considered valid if the calculated r value is greater than r table (i.e. 0.2146) at the 5% significance level. The results of the validity test using IBM SPSS Statistics 30.0 software show that the variables of consumer perception (X1), price (X2), product quality (X3), and purchasing decisions (Y) can be found in the following table 1. Based on the table 1, it can be concluded that Consumer Perception, Price, and Product Quality have a calculated r value greater than r table (with a value of $df = n - 2 = 82$, $r_{table} = 0.2146$). Therefore, all instruments in this research variable are declared valid.

For reliability testing, the Cronbach's Alpha formula is used. The determination in this test is based on the Cronbach's Alpha value, where a value of more than 0.60 indicates that the instrument is reliable, while a value below 0.60 indicates that the instrument is not reliable.

Table 1. Presenting the Validity Test

| Variables | Item | R count | Description |
|--------------------------|-------|---------|-------------|
| Consumer Perception (X1) | X1. 1 | 0, 690 | VALID |
| | X1. 2 | 0, 778 | VALID |
| | X1. 3 | 0, 737 | VALID |
| | X2. 1 | 0, 608 | VALID |
| Price (X2) | X2. 2 | 0, 482 | VALID |
| | X2. 3 | 0, 656 | VALID |
| | X2. 4 | 0, 442 | VALID |
| Product Quality (X3) | X3. 1 | 0, 513 | VALID |
| | X3. 2 | 0, 562 | VALID |
| | X3. 3 | 0, 546 | VALID |
| | X3. 4 | 0, 614 | VALID |
| | X3. 5 | 0, 664 | VALID |
| Purchase Decision (Y) | Y1. 1 | 0, 604 | VALID |
| | Y1. 2 | 0, 633 | VALID |
| | Y1. 3 | 0, 535 | VALID |
| | Y1. 4 | 0, 593 | VALID |
| | Y1. 5 | 0, 632 | VALID |

Source: Data Processed, 2024

Table 2. Presenting the Reliability Test

| No. | Variables | Cronbach's Alpha | Description |
|-----|--------------------------|------------------|-------------|
| 1 | Consumer Perception (X1) | 0,782 | Reliable |
| 2 | Price (X2) | 0,645 | Reliable |
| 3 | Product Quality (X3) | 0,709 | Reliable |
| 4 | Purchase Decision (Y) | 0,703 | Reliable |

Source: Data Processed, 2024

Table 3. Presenting Multiple Linear Regression Analysis

| Model | Unstandardized | | Standardized | t | Sig. |
|------------|----------------|------------|--------------|-------|------|
| | Coefficients | | Coefficients | | |
| | B | Std. Error | Beta | | |
| (Constant) | 4.861 | 1.125 | | 4.321 | .000 |
| X1 | .405 | .069 | .413 | 5.855 | .000 |
| X2 | .292 | .076 | .269 | 3.861 | .000 |
| X3 | .284 | .054 | .372 | 5.255 | .000 |

Source: Data Processed, 2024

Based on the information contained in the table 2, it is known that all research variables such as consumer perceptions, price, product quality, and purchasing decisions have a Cronbach Alpha value that is significant and greater than 0.60. Therefore, it can be concluded that the instruments used in this study have proven reliable and are ready to be used for data collection.

From the above results, the following equation is obtained:

$$Y = 4.861 + 0.405.X1 + 0.292.X2 + 0.284.X3 + e$$

Based on the multiple linear regression equation model mentioned above, it can be explained as follows:

- The constant of 4.861 indicates that if all independent variables are zero, then employee performance is estimated to reach 4.861.
- The regression coefficient for the consumer perception variable of 0.413 indicates that an increase of one unit in consumer perception can increase the purchase decision by 0.413. The significance value of 0.000 implies that this effect is significant.
- The regression coefficient on the price variable is 0.292, meaning that an increase of one unit in price can increase purchasing decisions by 0.292. The significance value of 0.000 also shows a significant effect.
- The regression coefficient for product quality of 0.284 indicates that by increasing product quality by one unit, purchasing decisions can increase by 0.284. The significance value of 0.000 tells us that the effect is also significant.

Based on the analysis in the table 3, it can be concluded that the coefficient of determination shows an r square value of 0.720. This shows that the independent variables in this study have an influence of 72% on the dependent variable, while the remaining 28% is influenced by other variables that are not the subject of this study.

Based on the analysis in the table 5, it can be seen that the calculated F value of 68.634 exceeds the F table value of only 2.72, and the recorded significance value is 0.000, lower than 0.05. Therefore, in this study it can be concluded that consumer perceptions, price, and product quality jointly influence purchasing decisions.

Table 4. Presenting the Coefficient of Determination

| Model | R | R Square | Adjusted R Square | Std. Error of the Estimate |
|-------|-------------------|----------|-------------------|----------------------------|
| 1 | .849 ^a | .720 | .710 | 1.39604 |

Source: Data Processed, 2024

Table 5. Presenting the F Test

| Model | | Sum of Squares | Df | Mean Square | F | Sig. |
|-------|------------|----------------|----|-------------|--------|-------------------|
| 1 | Regression | 401.291 | 3 | 133.764 | 68.634 | .000 ^b |
| | Residuals | 155.915 | 80 | 1.949 | | |
| | Total | 557.207 | 83 | | | |

Source: Data Processed, 2024

Table 6. Presenting the T-test

| Model | | Unstandardized Coefficients | | Standardized Coefficients | t | Sig. |
|-------|------------|-----------------------------|------------|---------------------------|-------|------|
| | | B | Std. Error | Beta | | |
| 1 | (Constant) | 4.861 | 1.125 | | 4.321 | .000 |
| | X1 | .405 | .069 | .413 | 5.855 | .000 |
| | X2 | .292 | .076 | .269 | 3.861 | .000 |
| | X3 | .284 | .054 | .372 | 5.255 | .000 |

Source: Data Processed, 2024

Table 7. Determination of Dominant Variables

| Model | Unstandardized Coefficients | | Standardized Coefficients | T | Sig. |
|--------------|-----------------------------|------------|---------------------------|-------|------|
| | B | Std. Error | Beta | | |
| 1 (Constant) | 4.861 | 1.125 | | 4.321 | .000 |
| X1 | .405 | .069 | .413 | 5.855 | .000 |
| X2 | .292 | .076 | .269 | 3.861 | .000 |
| X3 | .284 | .054 | .372 | 5.255 | .000 |

Source: Data Processed, 2024

Based on the results obtained, the consumer perception variable (X1) partially influences purchasing decisions (Y), indicated by the calculated t value of 5.855 which exceeds the t table value of 1.66412 and a significance level of 0.000 which is smaller than 0.05. Therefore, H_0 is rejected, and consumer perception (X1) does affect purchasing decisions (Y). Likewise with the price variable (X2), which shows a partial effect on purchasing decisions (Y) with a calculated t value of 3.861 greater than the t table 1.66412 and a significance level of $0.000 < 0.05$. So, H_0 is also rejected, confirming that price has an effect on purchases (Y). The product quality variable (X3) also has a partial influence on purchasing decisions (Y), as evidenced by the calculated t value of 5.255 which is greater than t table 1.66412 and a significance level of $0.000 < 0.05$. Therefore, H_0 is rejected, indicating that product quality (X3) has an effect on purchasing decisions (Y).

According to the results, it is known that consumer perception has a beta coefficient of 0.413 with a significance of $0.000 < 0.05$ compared to price and product quality. This shows that consumer perceptions make a dominant contribution to the purchase decision of natural alum spray deodorant.

Discussion

This study shows that the variables of Consumer Perception (X1), Price (X2), and Product Quality (X3) simultaneously have a significant influence on Purchasing Decisions (Y) on natural spray alum deodorant products. This can be seen from the calculated F value of $68.634 > F$ table 2.72, as well as a significance value of F of $0.000 < 0.05$. Thus, H_0 is rejected and H_a is accepted. In conclusion, the first hypothesis which states that the three variables jointly influence the Purchasing Decision of alum natural spray deodorant is proven correct.

This study also proves that Consumer Perception (X1) has a positive and significant effect on Purchasing Decisions (Y) partially. This can be seen from the calculated t value of 5,855 and a significance value of $0.000 < 0.05$, so H_0 is rejected and H_1 is accepted. This shows that consumer perceptions of purchasing decisions for alum natural spray deodorant are going well, especially among students of the Faculty of Economics and Business, Bhayangkara University Surabaya.

In addition, Price (X2) also partially has a positive and significant effect on Purchasing Decisions (Y). This is evidenced by the calculated t value of 3.861 and a significance value of $0.000 < 0.05$, so H_0 is rejected and H_1 is accepted. It is the same with Product Quality (X3), whose t value is 5.255 and a significance value of $0.000 < 0.05$. This also indicates that product quality has a significant effect on purchasing decisions for alum natural spray deodorants, especially among students of the Faculty of Economics and Business, Bhayangkara University Surabaya.

Furthermore, multiple linear regression analysis shows that the variable with the largest standard beta (β) coefficient is Consumer Perception (X1) with a value of 0.405 or 41.5%, compared to Price (X2) and Product Quality (X3). This means that Consumer Perception is the dominant factor influencing the Purchase Decision of Tawas Natural Spray Deodorant. So, the hypothesis which states that Consumer Perception plays a dominant role in influencing the Purchasing Decision of Natural Spray Alum Deodorant is proven correct.

Research by Alfian & Nainggolan (2022) states that product quality and brand image have a positive and significant effect partially or simultaneously on purchasing decisions for Emina products in Batam City, while consumer confidence only has a positive but insignificant effect. This strengthens the findings of the current study, especially in the aspect of product quality, which is consistently the main determinant in making purchasing decisions.

However, there are differences in terms of other variables. Hastuti & Silitonga (2025) study, brand image was an important factor, while in the study, the focus was on price and general consumer perceptions, including perceptions of product value and utility. This shows that although different variables are used, product quality remains a central element that influences consumer purchasing decisions, both for beauty products such as Emina and natural hygiene products such as alum deodorant.

Thus, the results of this study are in line with the findings of Hastuti & Silitonga (2025) in terms of the importance of product quality. However, the differences in the effects of other variables such as price and brand image reflect that product characteristics and market segments also influence the weight of each variable on purchasing decisions. Products with natural and traditional positioning such as alum may be more sensitive to price and perceived benefits than modern cosmetic brands such as Emina that rely more on image and branding.

CONCLUSIONS

After analyzing the data, the conclusions that can be drawn are as follows from the results of the F (Simultaneous) test analysis, it can be concluded that the variables of Consumer Perception (X1), Price (X2), and Product Quality (X3) as a whole have a significant effect on Purchasing Decisions (Y) alum natural spray deodorant, as detected in the research of students of the Faculty of Economics and Business, Bhayangkara University Surabaya. The results of the t test analysis (Partial) show that each independent variable, namely Consumer Perception (X1), Price (X2), and Product Quality (X3), individually has a significant influence on Purchasing Decisions (Y). Based on the results of analysis and testing, the Consumer Perception variable (X1) holds the highest beta coefficient compared to Price (X2) and Product Quality (X3). This indicates that Consumer Perception has the most dominant influence on the Purchase Decision variable (Y) deodorant alum natural spray according to studies conducted on students of the Faculty of Economics and Business, Bhayangkara University Surabaya.

DAFTAR PUSTAKA

- Alfian, C., & Nainggolan, B. MH. (2022). Pengaruh Kualitas Produk, Persepsi Harga Dan Citra Merek Terhadap Keputusan Pembelian Di Steak 21 Mall Kota Kasablanka. *SINOMIKA Journal: Publikasi Ilmiah Bidang Ekonomi dan Akuntansi*, 1(3), 363–380. <https://doi.org/10.54443/sinomika.v1i3.276>.
- Amanah, D., & Harahap, D. A. (2023). *Management Basic Principles of Understanding Management Science*. UPI Press.

- Amir, M. (2018). The Effect of Product Quality on Consumer Satisfaction of Acer Notebook Users at Pt. Genius Alva Makassar. *Akmen Scientific Journal*, 15(3), 515-526.
- Amri, M. (2019). The Effect of Price and Quality of Medical Device Products on Consumer Purchasing Decisions at PT. Dyza Sejahtera Medan. *Journal of Warta Dharmawangsa*, 13(1), 1829-7463. <http://dx.doi.org/10.26623/slsi.v21i3.7080>.
- Anggraini, D., Semartini, A., Mursiany, A., Rahmawati, N., Trihana, A., Jeany, A., Prahasti, I., Putri, F., & Hidayah, D. (2024). Deodoran Spray Sewangi (Serai Wangi (Cymbopogon nardus L.)) untuk Mengatasi Dampak Sosial Bau Badan di Desa Cemani, Kecamatan Grogol, Kabupaten Sukoharjo. *Jurnal Abdimas Kartika Wijayakusuma*, 5(2), 277-288. <https://doi.org/10.26874/jakw.v5i2.404>.
- Cesariana, C., Juliansyah, F., Fitriyani, R. (2022). Model Keputusan Pembelian Melalui Kepuasan Konsumen pada Marketplace: Kualitas Produk dan Kualitas Pelayanan (*Literature Review* Manajemen Pemasaran). *Journal of Education Management and Social Sciences*, 3(1), 211- 224.
- Dewi, Y. K., & Gosal, J. (2020). The Effect of Consumer Perceptions and Lifestyle on Willingness to Pay Premium Prices for Wagyu Products. *Journal of Business Management*, 16(2), 129-144.
- Firmansyah, A. (2019). *Marketing (Basics and Concepts)*. Qiara Media Publisher.
- Firmansyah, A. (2019). *Consumer Behavior (Attitudes and Marketing)*. Qiara Media Publisher.
- Firmansyah, A. (2019). *Product and Brand Marketing (Planning & Strategy)*. Qiara Media.
- Fakhrudin, A., Roelijanti. M. V., Awan. (2022). *Bauran Pemasaran*. Deepublish Publisher.
- Hastuti, T., & Silitonga, P. (2025). The Effect of Location, Product Quality, and Perceived Price in Increasing Purchase Decision through Brand Image as the Mediator. *Business Management Journal*, 21(1), 51-65. <http://dx.doi.org/10.30813/bmj.v21i1.8134>.
- Nadeem, M., Jamal, T., Hassan, M., Ullah, M. A., Rasheed, A. (2021). Brand Message VS Brand Perception. *Reviews of Management Sciences*, 1(1), 22-27.
- Rosnaini, D. (2017). *Image, Product Quality and Customer Satisfaction*. Global Research and Consulting Institute.
- Soraya, R. (2020). The Effect of Consumer Perceptions on Purchasing Decisions at Fs Store Ujung Batu. *Doctoral Dissertation*. Riau Islamic University. <http://repository.uir.ac.id/id/eprint/11589>.
- Tanady, E. S., & Fuad, M. (2020). Analysis of the Effect of Brand Image and Service Quality on Tokopedia Purchasing Decisions in Jakarta. *Journal of Marketing Management*, 9(2), 2477-4774. <https://doi.org/10.46806/jm.v9i2.663>.
- Wardhana, A. (2024). *Consumer Behavior in the Digital Age*. CV. Eureka Media Aksara.