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Analysis of Consumer Preferences Towards the Decision to Purchase Facial Moisturizer Cosmetic Preparations (Among Ft UNJ Students)

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This study aims to analyze consumer preferences regarding purchasing decisions for facial moisturizer cosmetics among students of the Faculty of Engineering, State University of Jakarta. The skin is a complex and sensitive protective organ of the body, so proper skin care is crucial for maintaining health and appearance (Hartopo & Hajjah, 2020; Menaldi et al., 2019). Cosmetics, including facial moisturizers, play a role in maintaining skin hydration, texture, and elasticity (Trenggono & Fatma, 2007). Consumer preferences are influenced by product attributes, brand, price, access and distribution, and social factors (Kotler & Keller, 2016). The research method used a quantitative descriptive approach with a population of female students of the Faculty of Engineering, UNJ and a sample of 100 respondents through purposive sampling. Data collection was carried out using a Likert-based questionnaire, analyzed with descriptive statistics and multiple linear regression. The results showed that simultaneously, consumer preference variables did not significantly influence purchasing decisions. However, partially, product attributes were proven to have a significant influence, while brand, price, access and distribution, and social factors did not show a significant influence. These findings confirm that students consider product quality as a primary factor in choosing a facial moisturizer, and indicate the need to develop other variables for a more comprehensive understanding of consumer behavior.
Keywords: Consumer Preferences, Purchase Decisions, Facial Moisturizers, Product Attributes, Students

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1. Introduction

The skin is the largest and heaviest organ in the human body. It serves as a protective barrier against environmental influences. It is elastic, complex, and sensitive (Hartopo & Hajjah, 2020). Maintaining healthy skin is essential for an attractive appearance and boosting self-confidence. Healthy skin is characterized by elasticity, softness, brightness, and good texture, and can be achieved through care tailored to individual skin types (Menaldi et al., 2019). Skin types are divided into four: normal, oily, dry, and combination (Sulistyorini & Dian, 2023). Normal skin has a balance of water and oil; oily skin tends to be shiny and acne-prone; dry skin appears dull and wrinkles easily; and combination skin has both oily and dry areas. Knowing your skin type helps you choose appropriate cosmetics.

Cosmetics have been known since the 5th century BC, in the form of aromatic ointments used for care and beauty (Hidayah & Titin, 2022). In the modern era, cosmetics serve aesthetic purposes, care for, and protect the skin. The definition of cosmetics according to the Regulation of the Minister of Health of the Republic of Indonesia No. According to Minister of Health Regulation No. 445/Menkes/Permenkes/1998, cosmetics are preparations used externally to alter appearance without curing disease (Khodijah et al., 2023). BPOM No. 23/2019 states that the functions of cosmetics include cleansing, scenting, improving appearance, protecting, and maintaining healthy skin.

Skin cosmetic preparations can be in the form of emulsions (lotions), creams, gels, crayons (sticks), and aerosols (sprays), each with its own characteristics and uses suited to skin type (Hidayah & Titin, 2022). Basic skin care consists of three steps: cleansing with a facial wash, moisturizing with a moisturizer, and protecting from UV rays with sunscreen. Facial moisturizers function to maintain hydration, form a protective layer, balance pH, prevent dryness, improve skin texture, and increase elasticity (Trenggono & Fatma, 2007). Moisturizers are available in various forms and ingredients, both natural (e.g., aloe vera) and active chemical ingredients (e.g., hyaluronic acid).

Consumer preferences in choosing products are influenced by product attributes such as brand, price, quality, and packaging, which shape perceptions and satisfaction (Kotler & Keller, 2016). Consumers consider product suitability for skin type, texture, fragrance, price, accessibility through distribution, and promotion by media and influencers. These factors influence purchasing decisions, loyalty, and consumer satisfaction.

The Indonesian cosmetics market declined by 8% due to the COVID-19 pandemic in 2020, but experienced significant growth of 48%, from IDR 21.45 trillion in 2021 to IDR 31.77 trillion in 2024 (Ministry of Industry, 2024). A ZAP Clinic survey (2024) showed that 60% of women sought moisturizers, an increase from 53.6% the previous year, indicating increased interest in facial moisturizing cosmetic preparations. Competition in the market is increasingly fierce with the emergence of various new and innovative products.

Observations of 35 students from the Faculty of Engineering, University of Jakarta, showed that the majority used moisturizers as part of their daily facial care routine. A total of 31 respondents sought information before purchasing to avoid mistakes, and 30 respondents compared products based on their preferences. Purchase intention was influenced by location, time, product quantity, and payment method. Most satisfied consumers repurchased and recommended the product, while dissatisfied consumers tried other products that better suited their skin type, quality, and price.

This study focused on facial moisturizer cosmetics because they are the most popular products. Purchasing decisions involve several stages: need recognition, information search, decision-making, post-purchase behavior, and impulse buying. Currently, there is no specific study on the preferences of UNJ Faculty of Engineering students regarding facial moisturizers. Therefore, this study was conducted with the title "Analysis of Consumer Preferences on Purchasing Decisions for Facial Moisturizer Cosmetics" as a requirement for completing the undergraduate study program in UNJ's Cosmetology Education Program.

Based on the above background, this study aims to: (1) Identify and analyze the influence of consumer preferences, including product, brand, price, access, distribution, and social preferences. (2) Determine the influence of product preferences on purchasing decisions for facial moisturizer cosmetic preparations. (3) To find out the influence of brands on purchasing decisions for facial moisturizer cosmetic preparations. (3) To find out the influence of prices on purchasing decisions for facial moisturizer cosmetic preparations. (4) To find out the influence of access and distribution on purchasing decisions for facial moisturizer cosmetic preparations. (5) To find out the social influence on purchasing decisions for facial moisturizer cosmetic preparations.

Research Hypothesis

Based on the theoretical study and conceptual framework outlined above, the hypotheses in this study are:

1. To test the influence of all consumer preference variables, including product, brand, price, access & distribution, and social factors, collectively on purchasing decisions for facial moisturizer cosmetics.
2. To test the partial influence of consumer preference product attributes on purchasing decisions for facial moisturizer cosmetics.

3. To test the partial influence of consumer preference brand attributes on purchasing decisions for facial moisturizer cosmetics.
4. To test the partial influence of consumer preference price attributes on purchasing decisions for facial moisturizer cosmetics.
5. To test the partial influence of consumer preference access and distribution attributes on purchasing decisions for facial moisturizer cosmetics.
6. To test the partial influence of consumer preference social attributes on purchasing decisions for facial moisturizer cosmetics.

2. Method

This research method aims to analyze the influence of product attributes of facial moisturizer cosmetics that influence consumer preferences on purchasing decisions among students of the Faculty of Engineering, Jakarta State University, and to determine the influence of each product attribute on purchasing decisions. The study was conducted at the Faculty of Engineering, Jakarta State University, from April to July 2025.

This study used a quantitative descriptive approach, as explained by Sugiyono (2021), who states that quantitative descriptive research aims to describe phenomena or symptoms through quantitative data obtained through systematic measurement or observation. This study does not attempt to manipulate variables, but rather describes facts or situations as they occur. The study population was active female students of the Faculty of Engineering who had used facial moisturizer products. A sample size of 100 was determined using purposive sampling in accordance with Sugiyono's (2021) criteria and Roscoe's (1982) guidelines for adequate sample size.

Data collection was conducted using a closed-ended questionnaire based on a Likert scale, structured based on consumer preference attribute indicators and purchasing decisions, with five levels of assessment ranging from strongly disagree to strongly agree. Primary data was obtained directly from respondents through questionnaires, while secondary data was obtained from literature such as books, scientific journals, the internet, and information related to Faculty of Engineering students (Hendarti, 2019).

The research instruments were assessed through validity and reliability tests. Validity was measured using product-moment correlation or Pearson correlation, where the instrument is considered valid if the correlation coefficient is significant at $p < 0.05$ (Sugiyono, 2021). Reliability was measured using Cronbach's Alpha, where the instrument is considered reliable if the coefficient value is greater than 0.6, indicating the instrument's ability to produce consistent data (Sugiyono, 2021).

Data analysis was conducted using descriptive statistics to provide an overview of the research phenomenon through means, percentages, standard deviations, and variances (Sugiyono, 2017; Sudjana, 2005; Santoso, 2014). A Likert scale was used to measure respondents' level of agreement with the questionnaire statements (Salkind, 2010). To analyze the influence of product attributes on purchasing decisions, multiple linear regression tests were used to measure both simultaneous and partial effects (Sugiyono, 2021). The coefficient of determination (R^2) is used to indicate the proportion of variation in the dependent variable explained by the independent variables, while the F-test is used to determine the simultaneous effect of the independent variables on the dependent variable, and the t-test to measure the partial effect of each independent variable (Sugiyono, 2021).

With this approach, the study is expected to provide a comprehensive overview of consumer preferences for facial moisturizer products and the relationship between product attributes and purchasing decisions among students of the Faculty of Engineering, Jakarta State University.

Statistical Hypothesis

Simultaneous Hypothesis (F-Test) => Tests the influence of all consumer preference variables, including product, brand, price, access & distribution, and social factors, simultaneously on the purchase decision variable for facial moisturizer cosmetics.

H0: There is no significant simultaneous influence between consumer preferences on the purchase decision for facial moisturizer cosmetics.

H1: There is a significant simultaneous influence between consumer preferences on the purchase decision for facial moisturizer cosmetics.

Partial Hypothesis (T-Test) => Tests the influence of each attribute of the consumer preference variables on the purchase decision for facial moisturizer cosmetics.

Product (X_1)

H0: There is no significant partial influence between product and the purchase decision for facial moisturizer cosmetics.

H1: There is a significant partial influence between product and the purchase decision for facial moisturizer cosmetics.

Brand (X_2)

H0: There is no significant partial influence between brand and the purchase decision for facial moisturizer cosmetics.

H1: There is a partial significant effect between brand and the decision to purchase facial moisturizer cosmetics.

Price (X_3)

H0: There is no partial significant effect between price and the decision to purchase facial moisturizer cosmetics.

H1: There is a partial significant effect between price and the decision to purchase facial moisturizer cosmetics.

Access & Distribution (X_4)

H0: There is no partial significant effect between access and distribution on the decision to purchase facial moisturizer cosmetics.

H1: There is a partial significant effect between access and distribution on the decision to purchase facial moisturizer cosmetics.

Social (X_5)

H0: There is no partial significant effect between social and psychological factors on the decision to purchase facial moisturizer cosmetics.

H1: There is a partial significant effect between social and psychological factors on the decision to purchase facial moisturizer cosmetics.

3. Results and Disccusion

Respondent Overview

This study involved 100 active undergraduate students from the Faculty of Engineering at Jakarta State University who had used facial moisturizer cosmetic products. Respondent characteristics were analyzed based on age, study program, frequency of facial moisturizer use in the past three months, and frequently used products.

Based on age, respondents were divided into three groups: 19, 20, and 21 years old. The 20-year-old age group was the largest, with 35 respondents (35%), followed by 33 respondents (33%) and 19-year-olds (32%). This indicates that the majority of respondents were in their late teens to early adulthood, who tend to be more active users and purchase facial moisturizer products.

In terms of study program, respondents were spread across various study programs within the Faculty of Engineering. The study programs with the largest number of respondents were Culinary Arts Education, Fashion Design Education, Makeup Education, and Family Welfare Education, each with 10 respondents (10%). Other study programs, such as Building Engineering Education, Mechanical Engineering, Fire Safety Engineering, Electrical Engineering Education, Electronic Engineering Education, Information Systems and Technology, and Information Technology & Computer Education, had varying proportions of respondents, ranging from 7% to 8%.

Regarding the frequency of facial moisturizer use over the past three months, the majority of respondents used the product twice (55%). One use was reported by 14 respondents (14%), three times by 25 respondents (25%), and four times by 6 respondents (6%). This indicates that facial moisturizer use is generally routine, although frequency varies among individuals.

Regarding the brands of facial moisturizer used, respondents indicated a preference for several products. Skintific was the most commonly used product, with 30 respondents (30%), followed by Hanasui with 23 respondents (23%), and Wardah with 17 respondents (17%). Other brands, such as G2G, The Originote, and Cetaphil, were used by a smaller proportion of respondents, with 13%, 9%, and 8%, respectively. This data illustrates the variation in product preferences among students at the Faculty of Engineering, State University of Jakarta, with the majority tending to choose popular and easily accessible brands.

Data Description

This study was conducted from July 12 to 14, 2025, involving 100 active undergraduate students at the Faculty of Engineering, State University of Jakarta who use facial moisturizer cosmetic products. The results illustrate respondents' preferences regarding product attributes, brand, price, access and distribution, and social influences on purchasing decisions.

Product Attributes (X1)

Respondents demonstrated high awareness of skin type and moisturizer benefits. The majority strongly agreed or agreed that they know their skin type before purchasing a product (51% and 43%) and chose moisturizers based on moisturizing benefits (51% and 47%). Most also considered product texture, with 46% strongly agreeing and 51% agreeing, and preferred a light and fast-absorbing texture (41% strongly agreeing and 59% agreeing). Product scent was also an important consideration, with 43% strongly agreeing and 49% agreeing. Respondents tended to choose products with more than one benefit, such as brightening, reducing redness, and smoothing the skin, although a small proportion (1%) disagreed.

These findings support Stevia's potential as a complementary therapy in diabetes management. However, although the statistical results indicate significant effectiveness, further analysis is needed to explore other factors that may contribute to changes in blood sugar levels, such as diet, physical activity, and patient compliance with Stevia consumption.

Regarding brands, the majority of respondents strongly agreed or agreed that they would choose a moisturizer they had used before (48% and 52%), trust the quality of a known brand (45% and 54%), and would consider a new brand if the quality was better (56% strongly agree, 43% agree). No respondents disagreed with the statement regarding brand.

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Price Attribute (X3)

Price preferences showed a similar pattern to brand, with respondents preferring products they had used before and trusting the brand's quality, and considering a new brand if the quality was better, with percentages of strongly agreeing and agreeing reaching 45%–56%, respectively. No respondents disagreed with the price attribute.

Access and Distribution Attributes (X4)

Respondents assessed the importance of hygienic packaging and product availability in online stores. Each statement received a 50% strong agreement response, with agreement approaching 50% for both statements. No respondents disagreed with the statement regarding access and distribution.

Social Attributes (X5)

Social factors also influence purchasing decisions. Respondents considered friends' recommendations (38% strongly agree, 57% agree), were attracted by social media advertisements (49% strongly agree, 47% agree), and paid attention to influencer recommendations (45% strongly agree, 55% agree). The BPOM logo and halal certification were also considered, with responses ranging from 47% to 51% strongly agreeing and agreeing, increasing trust in the product. Only a small percentage of respondents (1%) disagreed regarding the influence of friends and social media advertisements.

Data Analysis Test

Instrument Requirements Test Results

Validity Test Results

The validity test was conducted using product-moment correlation. In this study, the validity test was used to calculate the data to be processed and the test was processed using SPSS 27.

Table 1. Validity Test Results for Product Attribute Variables (X1)

Statement Item	R_{hitung}	R_{tabel}	Condition	Significance	Condition	Information
Statement 1	0.351	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 2	0.507	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 3	0.444	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 4	0.292	0.195	r count > r table	0.003	sig < 0.05	Valid
Statement 5	0.491	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 6	0.299	0.195	r count > r table	0.002	sig < 0.05	Valid
Statement 7	0.504	0.195	r count > r table	<0.001	sig < 0.05	Valid

Source: Data processed in 2025.

Based on Table 1, the validity test results for the Product Attribute variable (X1) for 7 statements obtained a calculated r value > r table and a significance value <0.05. Therefore, it can be concluded that all statements in the Product Attribute variable (X1) are valid.

Table 2. Validity Test Results for the Brand Attribute Variable (X2)

Statement Item	R_{hitung}	R_{tabel}	Condition	Significance	Condition	Information
Statement 1	0.256	0.195	r count > r table	0.01	sig < 0.05	Valid
Statement 2	0.353	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 3	0.247	0.195	r count > r table	0.13	sig < 0.05	Valid

Source: Data processed in 2025.

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Based on Table 2, the validity test results for the Brand Attribute variable (X2) for three statements obtained a calculated r value > r table and a significance value <0.05. Therefore, it can be concluded that all statements in the Brand Attribute variable (X2) are valid.

Table 3. Validity Test Results for the Price Attribute Variable (X3)

Statement Item	R_{hitung}	R_{tabel}	Condition	Significence	Condition	Information
Statement 1	0.328	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 2	0.305	0.195	r count > r table	0.002	sig < 0.05	Valid
Statement 3	0.28	0.195	r count > r table	0.005	sig < 0.05	Valid

Hasil data diolah pada 2025

Based on Table 3, the validity test results for the Price Attribute variable (X3) for three statements obtained a calculated r value > r table and a significance value <0.05. Therefore, it can be concluded that all statements in the Price Attribute variable (X3) are valid.

Table 4. Validity Test Results for the Access & Distribution Attribute Variable (X4)

Statement Item	R_{hitung}	R_{tabel}	Condition	Significance	Condition	Information
Statement 1	0.267	0.195	r count > r table	0.007	sig < 0.05	Valid
Statement 2	0.3	0.195	r count > r table	0.002	sig < 0.05	Valid

Source: Data processed in 2025.

Based on Table 4, the validity test results for the Access & Distribution Attribute variable (X4) with two statements obtained with a calculated r value > r table and a significance value <0.05. Therefore, it can be concluded that all statements in the Access & Distribution Attribute variable (X4) are valid.

Table 5. Validity Test Results for the Social Attribute Variable (X5)

Item Pernyataan	R_{hitung}	R_{tabel}	Kondisi	Signifikansi	Kondisi	Keterangan
Pernyataan 1	0.345	0.195	*r hitung* > *r*tabel	<0.001	sig < 0.05	Valid
Pernyataan 2	0.401	0.195	*r hitung* > *r*tabel	<0.001	sig < 0.05	Valid
Pernyataan 3	0.387	0.195	*r hitung* > *r*tabel	<0.001	sig < 0.05	Valid
Pernyataan 4	0.261	0.195	*r hitung* > *r*tabel	0.009	sig < 0.05	Valid
Pernyataan 5	0.461	0.195	*r hitung* > *r*tabel	<0.001	sig < 0.05	Valid

Source: Data processed in 2025.

Based on Table 5, the validity test results for the Social Attribute variable (X5) for five statements obtained a calculated r value > r table and a significance value <0.05. Therefore, it can be concluded that all statements in the Social Attribute variable (X5) are valid.

Table 6. Validity Test Results for the Purchase Decision Variable (Y)

Statement Item	R_{hitung}	R_{tabel}	Condition	Significance	Condition	Information
Statement 1	0.409	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 2	0.359	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 3	0.368	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 4	0.272	0.195	r count > r table	0.006	sig < 0.05	Valid
Statement 5	0.416	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 6	0.358	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 7	0.418	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 8	0.273	0.195	r count > r table	0.006	sig < 0.05	Valid
Statement 9	0.462	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 10	0.368	0.195	r count > r table	<0.001	sig < 0.05	Valid

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Statement Item	R_{hitung}	R_{tabel}	Condition	Significance	Condition	Information
Statement 11	0.372	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 12	0.473	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 13	0.448	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 14	0.351	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 15	0.505	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 16	0.279	0.195	r count > r table	0.005	sig < 0.05	Valid
Statement 17	0.342	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 18	0.296	0.195	r count > r table	0.003	sig < 0.05	Valid
Statement 19	0.213	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 20	0.35	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 21	0.436	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 22	0.227	0.195	r count > r table	0.023	sig < 0.05	Valid
Statement 23	0.349	0.195	r count > r table	<0.001	sig < 0.05	Valid
Statement 24	0.221	0.195	r count > r table	0.27	sig < 0.05	Valid
Statement 25	0.218	0.195	r count > r table	0.29	sig < 0.05	Valid
Statement 26	0.29	0.195	r count > r table	0.003	sig < 0.05	Valid
Statement 27	0.373	0.195	r count > r table	<0.001	sig < 0.05	Valid

Source: The data were processed in 2025.

Based on Table 6, the validity test results for the Purchase Decision variable (Y) with 27 statements obtained a calculated r value > r table and a significance level <0.05. Therefore, it can be concluded that all statements in the Purchase Decision variable (Y) are valid.

Reliability Test Results

Table 7. Interpretation of the r Alpha Correlation Index Value

Coefficient Interval	Relationship Level
0,800 – 1,000	Very High
0,600 – 0,799	High
0,400 – 0,599	Medium
0,200 – 0,399	Low
0,000 – 0,199	Very Low

Source: Sugiyono (2021)

Based on Table 7's reliability requirements, the following can be seen from the test:

Table 8: Reliability Test Results

Variables	Alpha Cronbach Value	Variables
Product Attributes (X1)	0.614	Product Attributes (X1)
Brand Attributes (X2)	0.629	Brand Attributes (X2)
Price Attributes (X3)	0.630	Price Attributes (X3)
Access & Distribution Attributes (X4)	0.629	Access & Distribution Attributes (X4)
Social Attributes (X5)	0.621	Social Attributes (X5)
Purchase Decision (Y)	0.694	Purchase Decision (Y)

Source: Data processed in 2025.

Based on Table 8, the reliability test results show that variable Y has the highest value with an Alpha of 0.694, while X1 has the lowest reliability value with an Alpha of 0.614.

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Data Analysis Requirements Test Results

Descriptive Test Results

This test is used to obtain a general overview of the data, such as the average (Mean), highest (Max), lowest (Min), and standard deviation values for each variable: Product Attributes (X1), Brand Attributes (X2), Price Attributes (X3), Access & Distribution Attributes (X4), Social Attributes (X5), and Purchase Decisions (Y). The results of the descriptive test are presented in Table 9 as follows:

Table 9. Descriptive Test Results

Descriptive Statistics

	N	Minimum	Maximum	Mean	Std. Deviation
Produk	100	25.00	34.00	30.8800	2.09511
Brand	100	12.00	15.00	13.4700	.92611
Harga	100	11.00	15.00	13.4000	1.00504
Akses & Distribusi	100	8.00	10.00	8.9900	.70345
Sosial	100	19.00	25.00	22.1400	1.36345
Keputusan Pembelian	100	101.00	130.00	120.0400	5.42333
Valid N (listwise)	100				

Source: SPSS 27 output, secondary data processed in 2025.

Based on the descriptive test results above, we can describe the distribution of the data obtained by the researcher as follows:

1. Product variable (X1): The minimum value is 25, the maximum value is 39, with an average of 30.8800 and a standard deviation of 2.09511.
2. Brand variable (X2): The minimum value is 12, the maximum value is 15, with an average of 13.4700 and a standard deviation of 0.92611.
3. Price variable (X3): The minimum value is 11, the maximum value is 15, with an average of 13.4000 and a standard deviation of 1.00504.
4. The Access & Distribution variable (X4) shows a minimum value of 8 and a maximum value of 10, with a mean of 8.9900 and a standard deviation of 0.70345.
5. The Brand variable (X5) shows a minimum value of 19 and a maximum value of 25, with a mean of 22.1400 and a standard deviation of 1.36345.
6. The Purchase Decision variable (Y) shows a minimum value of 101 and a maximum value of 130, with a mean of 120.0400 and a standard deviation of 5.42333.

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Data Analysis Requirements Test Results

Multiple Linear Regression Analysis Test Results

Table 10. Multiple Linear Regression Coefficient Test Results

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	41.409	9.853		4.203	<.001
	Produk	1.081	.233	.418	4.633	<.001
	Brand	.996	.476	.170	2.093	.039
	Harga	1.006	.443	.186	2.269	.026
	Akses & Distribusi	1.318	.622	.171	2.119	.037
	Sosial	.294	.364	.074	.807	.422

a. Dependent Variable: Keputusan Pembelian

Source: SPSS 27 output, Secondary data processed in 2025

Y = a + b1.x1 + b2.x2 + b3.x3 + b4.x4 + b5.x5
= 41.409 + 1.081 + 0.996 + 1.006 + 1.318 + 0.294
= 46.104

Based on Table 10, the results of the Coefficient of Determination test can be concluded as follows:

1. The a value of 41.409 is a constant or the state when the Purchase Decision variable (Y) is not influenced by other variables, namely Product (X1), Brand (X2), Price (X3), Access & Distribution (X4), and Social (X5). If the independent variable is absent, the Purchase Decision variable (Y) remains unchanged.
2. b1 (regression coefficient value X1) of 1.1081 indicates that the Product variable has a significant effect on the Purchase Decision (Y) with a coefficient of 1.081 (Sig. < 0.001), indicating that product quality has the greatest contribution in influencing the Purchase Decision (Y).
3. b2 (regression coefficient value X2) of 0.996 indicates that the Brand variable has a significant effect on the Purchase Decision (Y) with a coefficient of 0.996 (Sig. = 0.039), which means that perception of the Brand also determines the Purchase Decision.
4. b3 (regression coefficient value X3) of 1.006 indicates that the Price variable has a significant effect on the Purchase Decision (Y) with a coefficient of 1.006 (Sig. = 0.026), so that an appropriate price can encourage consumers to buy.
5. The b4 (regression coefficient value of X4) is 1.318, indicating that the Access & Distribution variable has a significant effect on the Purchase Decision (Y) with a coefficient of 1.318 (Sig. = 0.037), indicating that ease of product acquisition increases the Purchase Decision (Y).
6. The b5 (regression coefficient value of X5) is 0.442, indicating that the Social variable does not have a significant effect on the Purchase Decision because its significance value is 0.422 (> 0.05), so the Social factor (X5) is not a major determinant in the Purchase Decision (Y).

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Hypothesis Testing

T-Test Results (Partial)

Table 11. T-Test Results of X1 against Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	102.649	7.867		13.048	<.001
	Produk	.559	.254	.217	2.200	.030

a. Dependent Variable: Keputusan Pembelian

Source: SPSS 27 output, data processed in 2025.

According to Table 11, the T-test results show that the Product variable (X1) has a significance value of 0.030 < 0.05 and a calculated t-value > t-table of 2.200. Therefore, Ho1 is rejected and Ha1 is accepted. This means that the product significantly influences purchasing decisions.

Table 12. T-Test Results for X2 versus Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	106.632	7.839		13.604	.000
	Brand	.986	.581	.169	1.699	.092

a. Dependent Variable: Keputusan Pembelian

Source: SPSS 27 output, data processed in 2025.

According to Table 12, the T-test results show that the Brand variable (X3) has a significance value of 0.092 > 0.05 and a calculated t-value < t-table of 1.699. Therefore, Ho1 is accepted and Ha1 is rejected. This means that there is no significant influence of brand on purchasing decisions.

Table 13. T-Test Results for X3 versus Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	105.957	7.155		14.808	<.001
	Harga	1.042	.532	.194	1.957	.053

a. Dependent Variable: Keputusan Pembelian

Source: SPSS 27 output, data processed in 2025.

According to Table 13, the T-test results show that the Price variable (X3) has a significance value of 0.053 > 0.05 and a calculated t-value < t-table of 1.957. Therefore, Ho1 is accepted and Ha1 is rejected. This means that price does not significantly influence purchasing decisions.

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Table 14. T-Test Results for X4 versus Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	117.549	6.989		16.820	<.001
	Akses & Distribusi	.264	.775	.034	.340	.734

a. Dependent Variable: Keputusan Pembelian

Source: SPSS 27 output, data processed in 2025.

According to Table 14, the T-test results show that the Access and Distribution variable (X4) has a significance value of 0.734 > 0.05, and the calculated t-value is < t-table of 0.340. Therefore, Ho1 is accepted and Ha1 is rejected. This means that there is no significant influence of Access and Distribution on purchasing decisions.

Table 15. T-Test Results of X5 against Y

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	113.650	8.852		12.838	<.001
	Sosial	.283	.399	.071	.710	.480

a. Dependent Variable: Keputusan Pembelian

Source: SPSS 27 output, data processed in 2025.

According to Table 15, the T-test results show that the Social variable (X5) has a significance value of 0.480 > 0.05 and a calculated t-value of 0.710 < t-table. Therefore, Ho1 is accepted and Ha1 is rejected. This means that there is no significant influence of Social variables on purchasing decisions.

F-Test Results (Simultaneous)

Table 16. F-Test Results of Variable X on Variable Y

ANOVA[a]

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	266.348	5	53.270	1.910	.100[b]
	Residual	2621.012	94	27.883		
	Total	2887.360	99			

a. Dependent Variable: Keputusan Pembelian

b. Predictors: (Constant), Sosial, Akses & Distribusi, Brand, Harga, Produk

From table 16, it can be seen that the sign value for the influence of product attributes (X1), brand (X2), price (X3), access & distribution (X4), and social (X5) on purchasing decisions (Y) is 0.1> 0.05 and f-count 27.8> f-table 2.47. This means that based on the significance value, the null hypothesis (H_0) is accepted → the product attribute variables (X1), brand (X2), price (X3), access & distribution (X4), and social (X5) simultaneously do not have a significant effect on purchasing decisions (Y). Meanwhile, based on the F value, H_0 is rejected → the independent variables simultaneously have a significant effect on Y.

Discussion of Research Findings

The results of the partial regression analysis (t-test) in this study indicate that of the five consumer preference variables (X1–X5), only variable X1 significantly influences the purchasing decisions of facial moisturizer cosmetic products among students of the Faculty of Engineering, University of Jakarta. The

significance value of X1, which is less than 0.05, confirms that this factor is the dominant factor in determining consumer behavior, while the other variables do not show a significant influence partially.

Conversely, variables X2 through X5 do not significantly influence purchasing decisions, as their significance values are above 0.05. This indicates that these factors are not sufficiently strong in influencing students of the Faculty of Engineering, University of Jakarta when making decisions to purchase facial moisturizer products. Thus, students' purchasing decisions are more influenced by one primary factor (X1) than by the others.

The dominant influence of X1 can be explained by the relevance of this factor to the students' needs as consumers. If variable X1 represents the product factor, respondents place more emphasis on the quality, benefits, and suitability of the product to their personal needs than other factors such as price, advertising, or brand. These findings suggest that consumers in this study were more rational in considering the core aspects of the products they consumed.

The insignificance of variables X2–X5 could also be due to the homogeneity of respondents' responses to the questionnaire items, resulting in insufficient variation to generate a statistically significant relationship. Furthermore, these factors may have been considered less relevant by UNJ Faculty of Engineering students in the decision-making process, or their influence may have been relatively small compared to the dominant factor represented by variable X1.

In addition to relevance, the possibility of multicollinearity between independent variables also needs to be considered. If variables such as X2 and X3 have a high correlation, their contributions can offset each other, making their partial effects insignificant. Therefore, multicollinearity tests using VIF (Variance Inflation Factor) and Tolerance are important to ensure the regression results are free from correlation issues between variables.

Another factor that could potentially influence the research results is the limited sample size. A small number of respondents can reduce statistical power, making the actual effect difficult to detect. Furthermore, the research instrument used, particularly to measure X2–X5, may not be fully valid or reliable. If the questionnaire items are not clear or do not adequately capture respondents' perceptions, the resulting relationship tends to be weak.

Furthermore, the results of the simultaneous test (F-test) indicate that the overall regression model is insignificant. This means that the combination of variables X1–X5 is unable to meaningfully explain variation in purchasing decisions. This finding confirms that the research model used is inadequate for predicting consumer behavior, necessitating the development of other, more relevant variables, such as influencer testimonials, online reviews, social media trends, or consumer psychological needs.

Therefore, it can be concluded that consumer preferences of UNJ Faculty of Engineering students regarding facial moisturizer purchasing decisions are more influenced by one dominant factor (X1) than the others. Although the simultaneous model is insignificant, the partial findings still demonstrate the importance of factor X1 in influencing individual purchasing behavior. Therefore, further research with a larger number of respondents, more relevant variables, and more valid and reliable instruments is highly recommended to obtain a more comprehensive picture of consumer behavior.

4. Conclusion

Based on the results of a study analyzing consumer preferences for purchasing decisions for facial moisturizer cosmetic products among students at the Faculty of Engineering, University of Jakarta (UNJ), it can be concluded that the consumer preference variables (X1–X5) simultaneously do not significantly

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influence purchasing decisions. However, partially, variable X1 proved to have a significant influence, thus concluding that this factor is the primary determinant considered by students when selecting facial moisturizer products. Meanwhile, other variables such as brand, price, access and distribution, and social factors did not have a significant partial influence. These results indicate that purchasing decisions of students at the Faculty of Engineering, University of Jakarta, are driven more by certain dominant factors than others. This condition indicates that the research model used is still limited in explaining consumer behavior comprehensively. Therefore, the development of other, more relevant variables is needed to obtain a comprehensive picture of consumer preferences in purchasing cosmetic products, particularly facial moisturizers.

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