



## Antecedents of Consumer Purchasing Decisions or Gayo Shallots in Aceh Tengah District

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### ABSTRACT

Aceh Tengah District is one of the producers of gayo shallots, but this has not stabilized the price of shallots in the area. When comparing the final consumer price to the marketing margin that intermediate dealers receive, the final consumer pricing is deemed to be out of balance. This study aims to analyze the influence of antecedents, namely price, income, product quality and needs on consumer purchasing decisions for gayo shallots in Aceh Tengah District. This study took a sample of 135 consumers who bought gayo shallots at the Aceh Tengah Regency main market. A survey method combined with a descriptive-quantitative methodology is used in this study. The sample was taken using purposive sampling method and the data obtained was statistically analyzed using multiple linear regression analysis. The results showed that all antecedents, namely price, income, product quality and needs, had a positive effect on purchasing decisions. These results indicate that, consumer decisions to buy gayo shallots depend on how much price is offered, the amount of income, how the quality of the shallots is and buy according to need.

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## **INTRODUCTION**

Agriculture is a significant contributor to the Indonesian economy. For most Indonesians, agriculture is a source of income. Indonesia has a tropical geography and is located in the equatorial zone, making it ideal for the production of agricultural crops, especially the horticultural subsector including vegetables, fruits, ornamental plants and medicinal plants (Dewi et al., 2017).

Indonesia is a tropical region with a wet climate that is very favorable for use in crop cultivation, most of its territory covers the agricultural sector. The agricultural sector is one of the economic sectors that has an important meaning and position in national development. This sector acts as a source of food income, a source of raw materials for industry, a livelihood for a large population, a generator of foreign exchange from commodity exports and even has a major influence on national stability and security. The agricultural sector is divided into five namely food crops, horticulture, livestock, fisheries and forestry (Directorate General of Horticulture, 2016).

Compared to other horticultural crops, shallots are one of the most economically valuable and extensively grown horticultural crops in the community. They also have the greatest potential to help farmers. The nature of shallot plants is not included in basic needs, but serves as a complement to the basic needs themselves. But on the other hand, farmers are still not ready for the soaring demand for shallots in the market (Stato, 2007).

Gayo shallots into superior varieties is an effort to realize the independence of shallot seeds, considering that so far to get good seeds the farmers have to order seeds from outside the area such as Brebes, Central Java. Gayo shallots themselves have advantages including disease resistance, many saung, good color and shorter harvest age. The shallot commodity in Aceh Tengah Regency is suitable for development in almost all sub-districts in Aceh Tengah Regency.

Aceh Tengah district is one of the producers of shallots, with a harvest area of 180.8 ha and production of 1,812 tons per year (BPS Aceh Tengan, 2022). However, this has not stabilized the price of shallots in the area. The price that occurs at the final consumer level is considered unbalanced when compared to the marketing margin received by intermediary traders. This causes the price of shallots at the consumer level to be relatively more expensive when compared to the price of shallots at the farm level. The nature of the shallot crop is seasonal and perishable so that its availability in the market varies greatly which causes price fluctuations (Ariningsih & Mari, 2004; Sukesu, Rahayuningrum & Widayanti, 2014).

In the harvest season, the amount of production is abundant, so the market price will decrease and in the lean season the opposite occurs. In addition, the gayo plateau often rains (high rainfall) resulting in a decrease in onion productivity, causing a decrease in shallot productivity. Conditions in the field the margin of intermediary traders is greater than the margin received by farmers so that the price of shallots at the final consumer level is relatively more expensive.

This fluctuating price is the main consideration for consumers in making this gayo shallot purchase decision. Purchasing decisions are important for consumers to get quality products according to their wishes, consumers have

their own considerations when making purchases (Saodah and Malia, 2017). Along with this erratic fluctuation in the price of gayo shallots, it is necessary to analyze what factors cause consumers to decide to keep making purchases of this gayo shallot.

## METHODOLOGY

By distributing questionnaires, this study falls under the category of quantitative descriptive research that uses the survey method. A research sample of customers who purchased Gayo Red Onions from the Aceh Tengah Regency Main Market was used to distribute the questionnaire in the study region. Because the population in this study is unknown, the sampling was carried out by the multiplication method carried out by Bentler & Chou (1987), Hair, Black, Babin, Anderson, & Tatham (2014) and Schumacker & Lomax (1996), where the number of indicators is multiplied by 5-10, so that the number of samples in this study is  $27 \times 5 = 135$  respondents. The sampling technique used is non-probability sampling with purposive sampling technique.

### Data Collection and Measurement Scale

This study uses a questionnaire as the main instrument for data collection, which is a method of collecting data by providing a set of questions or statements that have been systematically arranged for respondents to fill in. Information is gathered by distributing questionnaires about the dependent variable of Gayo Red Onion purchases and the independent variables of price, income, product quality, and needs. The variable measurement scale used is a Likert scale with 5 points from scale 1 (strongly disagree) to scale 5 (strongly agree).

### Data Analysis

The method used in processing and analysing purchasing decision data is quantitative descriptive analysis through multiple linear regression equation models. The calculation tool or instrument used in this research is computerization using Excel software and Statistical Product for Service Solution (SPSS 26). The Multiple Linear Regression Equation used is as follows:

$$Y = a + b_1X_1 + b_2X_2 + b_3X_3 + b_4X_4 + e \dots\dots\dots (1)$$

Information:

- Y : Purchase decision
- A : Constant
- b<sub>1</sub>, b<sub>2</sub>, b<sub>3</sub> : Regression coefficient/slope
- X<sub>1</sub> : Price Variable
- X<sub>2</sub> : Income Variable
- X<sub>3</sub> : Product quality variable
- X<sub>4</sub> : Variable needs
- E : Standard error

Before conducting multiple linear regression analysis, it is necessary to test the validity and reliability of the research data to test whether the data that has been collected is feasible and reliable to be used as a research instrument.

1. Validity Test

The validity test is carried out using the person product moment (r) method, the  $r_{count}$  value is said to be valid if it is higher than the  $r_{table}$  value of 0.169 (n = 135). Additionally, it seems that all factors are legitimate and viable to move forward with comprehensive study based on the outcomes of the tests that have been conducted.

Table 1. Pearson Product Moment Validity Testing Results

No.	Variables	r	Validity
1	Price (X1)	0,736	Valid
2	Income (X2)	0,689	Valid
3	Product Quality (X3)	0,812	Valid
4	Needs (X4)	0.790	Valid
5	Purchase Decision (Y)	0,801	Valid

2. Reliability Test

The Reliability test is carried out using the Cronbach alpha ( $\alpha$ ) method, the  $\alpha$  value is said to be reliable if it is greater than 0.6. And based on the results of the tests that have been carried out, it appears that all variables are reliable and feasible to proceed to full research.

Table 2. Cronbach Alpha Reliability Testing Results

No.	Variables	$\alpha$	Reliability
1	Price (X1)	0,669	Reliable
2	Income (X2)	0,716	Reliable
3	Product Quality (X3)	0,828	Reliable
4	Needs (X4)	0.643	Reliable
5	Purchase Decision (Y)	0,871	Reliable

Furthermore, in order to get an unbiased estimate, it is also necessary to test the classical assumptions, among others:

3. Normality test

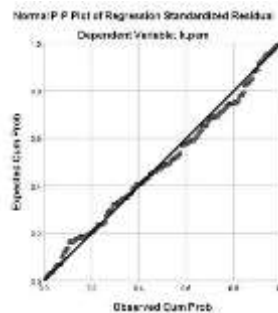


Figure 1. Normality Test Results using P-P Plot

Based on this picture, it can be concluded that the data used shows normal. Analysis of the graph above shows that the points spread around the diagonal

line and follow the direction of the diagonal line, so the regression model fulfills the assumption of normality.

#### 4. Heteroscedasticity Test

The results of the heteroscedasticity test can be seen that the points spread with an unclear pattern above and below the number 0 on the Y axis, so it can be concluded that there is no heteroscedasticity in the regression model.

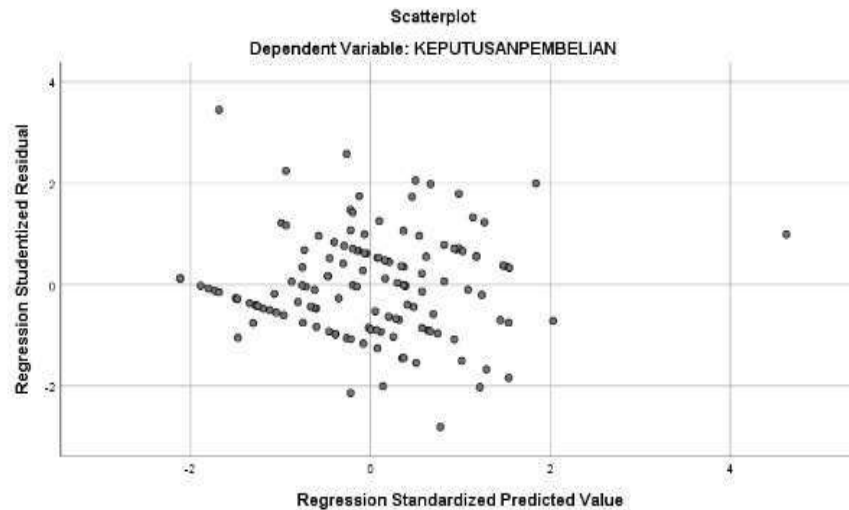


Figure 2. Heteroscedasticity Test Results

#### 5. Multicollinearity Test

Table 3. Multicollinearity Testing Results

Free Variable	VIF	Description
Price (X)1	1,241	Non-Multicollinearity
Income (X)2	1,578	Non-Multicollinearity
Product quality (X)3	1,603	Non-Multicollinearity
Needs (X4)	1,135	Non-Multicollinearity

From the table above, it can show that the variable price (X1) and income (X2), product quality (X3), and needs (X4) have a tolerance value > 0.10 and VIF < 10, meaning that there is no multicollinearity.

## RESULTS AND DISCUSSION

### Demographics

The study surveyed 135 respondents, with a gender representation of 29% male and 71% female participants. In terms of age, there were 33 respondents aged <20 years (24%), 15 respondents aged 20-30 years (10%), 51 respondents aged 30-40 years (38%) and 38 respondents aged >40 years (28%).

Table 4. Respondent Characteristics

Description	n	Percentage
Gender		
Men	39	29%

Description	n	Percentage
Women	96	71%
Total	135	100%
Age		
<20 Years	33	24%
20-30 Years	15	10%
30-40 Years	51	38%
>40 Years	38	28%
Total	135	100%
Education		
SD	14	10%
SMP	24	18%
HIGH SCHOOL	73	54%
S1, S2, S3	24	18%
Total	135	100%
Revenue		
< 1 million	51	38%
1 million-2	33	24%
2.1 million-3	13	10%
> 3 million	38	28%
Total	135	100%

In terms of education, 14 respondents (10%) had elementary school education, 24 respondents (18%) had junior high school, 73 respondents (54%) had high school education and 24 respondents (18%) had bachelor's, master's and doctoral degrees. Finally, in terms of income, respondents with income < 1 million totalled 51 respondents (38%), 1 million-2 million totalled 33 respondents (24%), 2.1 million-3 million totalled 13 respondents (10%) and > 3 million totalled 38 respondents.

### Multiple Linear Regression and Hypothesis Testing

After testing the validity and reliability as well as testing the classical assumptions of the research model that has been determined, multiple regression analysis and t test are then carried out for hypothesis testing. The results of the analysis are as follows:

Table 5. Multiple Regression Analysis Results

Variable	$\beta$	e	t	P
Price	0.421	0.163	2.589	0.011
Revenue	0.391	0.159	2.460	0.015
Product Quality	0.298	0.149	1.995	0.048
Needs	0.576	0.289	1.992	0.049

Dependent Variable: Purchase Decision

Based on the results of the analysis that has been done, it can be seen that, the effect of price (X1) on purchasing decision variables (Y) partially can be seen that the tcount value (2.589) is greater than ttabel (1.656) with a significance value of 0.011 (0.000 < 0.05), then H1 is accepted. The effect of income (X2) on

purchasing decision variables (Y) partially can be seen that the tcount value (2.460) is greater than ttable (1.656) with a significance value of 0.015 ( $0.015 < 0.05$ ), then H2 is accepted. Furthermore, the effect of Product Quality (X3) on the purchasing decision variable (Y) partially can be seen that the tcount value (1.995) is greater than ttable (1.656) with a significance value of 0.048 ( $0.048 < 0.05$ ), then H3 is accepted. Finally, the effect of necessity (X4) on the purchasing decision variable (Y) partially can be seen that the tcount value (1.992) is greater than ttable (1.656) with a significance value of 0.049 ( $0.049 < 0.05$ ), then Ha is accepted.

### **F Test and Coefficient of Determinacy**

The F test was conducted to see the amount of influence together of all independent variables on their antecedents, namely the variable price (X1), income (X2), Product Quality (X3), Needs (X4) on purchasing decisions (Y). The F test in this study uses the ANOVA method, based on the test results, the Fcount value is 13,320 with a significance of  $0.000 < 0.05$ . This shows that all independent variables simultaneously have a real effect on the dependent variable, namely the Purchase Decision (Y).

Furthermore, to determine the magnitude of the contribution of the regression coefficient between the independent variable and the dependent variable, the coefficient of determination (R<sup>2</sup>) is used. If the coefficient of determination is close to 1 then the influence of the independent variable on the dependent variable is strong, if (R<sup>2</sup>) is 0 then there is no influence between the independent variables on the dependent variable. From the results of the analysis that has been done, it can be seen that the R<sup>2</sup> value obtained is 0.791. This shows that the variation in the dependent variable Gayo Red Onion purchase decision in Aceh Tengah Regency can be explained by the independent variable by 79.1%.

### **CONCLUSIONS AND RECOMMENDATIONS**

Based on the results of data processing and analysis that has been carried out, the following conclusions can be drawn:

1. Price has a positive and significant effect on purchasing decisions for Gayo Red Onions in Aceh Tengah Regency. The cheaper the price of Gayo shallots, the more purchasing decisions (Y) of Gayo shallots will increase in Aceh Tengah Regency.
2. Income has a positive and significant effect on purchasing decisions for Gayo Red Onions in Aceh Tengah Regency. The higher the consumer's income, the higher the purchasing decision (Y) of Gayo Red Onion in Aceh Tengah Regency.
3. Product quality has a positive and significant effect on purchasing decisions for Gayo Red Onions in Aceh Tengah Regency. The higher the level of product quality of Gayo shallots, the higher the purchasing decision (Y) of Gayo shallots in Aceh Tengah Regency.
4. Needs have a positive and significant effect on purchasing decisions for Gayo Red Onions in Aceh Tengah Regency. The higher the level of consumer needs for Gayo Red Onions, the higher the purchasing decision (Y) of Gayo Red Onions in Aceh Tengah Regency.

Based on the above conclusions, several recommendations can be given, among others

1. To enhance purchasing decisions for Gayo Red Onions, implement competitive pricing strategies by regularly analyzing market conditions to balance affordability and profitability.
2. Improve the product quality through advanced agricultural practices and proper post-harvest handling. Providing training to farmers will ensure consistently high-quality produce.
3. Strengthen marketing efforts by highlighting the onions' unique qualities and nutritional benefits. Collaborate with local markets and online platforms to increase accessibility and educate consumers about their advantages.

### **FURTHER RESEARCH**

This research still has limitations so further research is still needed on this topic.

### **REFERENCES**

- Ariningsih, E., & Tentamia, M. K. (2004). Faktor-faktor yang mempengaruhi penawaran dan permintaan bawang merah di Indonesia. Pusat Penelitian dan Pengembangan Pertanian.
- Bentler, P. M., & Chou, C.-P. (1987). Practical issues in structural modeling. *Sociological Methods & Research*, 16(1), 78-117.
- Badan Pusat Statistik (BPS) Aceh. (2020). Aceh dalam angka 2020. Badan Pusat Statistik.
- Badan Pusat Statistik (BPS) Aceh Tengah. (2022). Aceh Tengah dalam angka 2022. Badan Pusat Statistik.
- Dewi, N. N. T., Ustriyana, I. N. G., & Djelantik, A. A. A. W. S. (2017). Strategi pemasaran bawang merah Gayo pada Sub Terminal Agribisnis Manik MekarNadi. *Jurnal Agribisnis Dan Agrowisata*, 6(2), 190-199. <https://doi.org/10.24843/jaa.2017.v06.i02.p02>
- Direktorat Jenderal Hortikultura. (2016). Pedoman uji mutu laboratorium. Direktorat Perbenihan Hortikultura. Kementerian Pertanian.
- Hair, J. F., Black, W. C., Babin, B. J., Anderson, R. E., & Tatham, R. L. (2014). *Multivariate data analysis* (8th ed.). Pearson Prentice Hall.
- Schumacker, R. E., & Lomax, R. G. (1996). *A beginner's guide to structural equation modeling*. Lawrence Erlbaum.
- Stato, H. (2007). Analisis faktor-faktor yang mempengaruhi fluktuasi harga bawang merah dan peramalannya (Studi kasus Pasar Induk Kramat Jati, DKI Jakarta) (Skripsi). Institut Pertanian Bogor (IPB).
- Sukesi, H., Rahayuningrum, N., & Widayanti, T. (2014). Analisis pemecahan oversupply bawang merah, kasus Brebes. *Buletin Ilmiah Litbang Perdagangan*, 2(1), 45-55.