

## THE EFFECT OF COMMISSION AGENT, CLIMATE AND PROFIT MARGIN ON SWEET ORANGE SALES KUTABULUH GUGUNG VILLAGE, KARO REGENCY

Desy Ramadani<sup>1</sup>, Hasrul Azwar Hasibuan<sup>2</sup>, Dewi Kumala Sari<sup>3</sup>, Dwi Nur Fadilla<sup>4</sup>

Management Study Program, Faculty of Social Sciences Universitas Pembangunan Panca Budi<sup>1,2,3,4</sup>

\*Correspondence Email : [desyramadani2304@gmail.com](mailto:desyramadani2304@gmail.com)

### Abstract

The purpose of this study was to determine whether commission agents, climate and profit margins partially and simultaneously have a positive and significant effect on sweet orange sales in Kutabuluh Gugung Village, Kutabuluh District, Karo Regency. The analysis methods used are quantitative methods and multiple linear regression analysis. The data used in this study are primary data. The data collection methods in this study were interview studies and questionnaires. This study used 50 respondents as samples in the study and the sampling method used saturated samples. The results showed that commission agents, climate and profit margins partially and simultaneously had a positive and significant effect on sweet orange sales in Kutabuluh Gugung Village, Kutabuluh District, Karo Regency.

**Keywords:** *Commission Agent, Climate, Profit Margin and Sales*

### INTRODUCTION

Oranges are one of the horticultural commodities that receive priority to be developed, because citrus farming provides high profits, so it can be used as a source of income for farmers. In addition, oranges are fruits that are favored by the community both as fresh and processed fruits and can be consumed by low-income people to high-income people. As a commodity that has high economic value, it is appropriate for the development of this citrus farming business to receive great attention, because of its large contribution to the national economy. Indonesia is an area with a wet tropical climate with 2 seasons including the rainy season and dry season with climate conditions like this Indonesia is an area that is very suitable for planting almost all agricultural commodities, especially in Kutabuluh Gugung Village, Kutabuluh District, Karo Regency which is one of the centers of orange production. Almost all agricultural land in this area is planted with oranges, as well as the population mostly has orange fields with varying land areas. However, this contribution does not make the level of welfare of farmers increase, but from the information of farmers almost every harvest season arrives they experience losses due to low orange prices while the cost of orange production is getting higher. This is possible due to underdeveloped citrus marketing patterns and declining fruit quality due to many old citrus plants. Farmers also admit that the biggest obstacle faced is in terms of marketing oranges. Based on the results of Widayat's research (2015), climate change affects temperature which has an impact on new pests and diseases, so this has an impact on permanent burdens increasing and delays in harvesting and quality also falls. The occurrence of heavy rain in a short time, resulting in landslide erosion which has an effect on disrupting production.

In general, the pattern of distribution of orange production from producers (farmers) to consumers in Kutabuluh Gugung Village, Kutabuluh District, Karo Regency uses intermediary traders who come to homes or gardens, some of which are sold directly to retailers in traditional markets. This intermediary trader can be an agent and also a contractor (auction system). This distribution pattern generally applies to the marketing of agricultural commodities such as oranges. The pattern of distribution through intermediaries generally has advantages and losses. The advantage is that the intermediary trader bears the costs incurred in the production of oranges, while the disadvantage is that the intermediary trader's specified price becomes low due to the expected commission from the price transaction. If the price given by the intermediary trader is not in line with the expectations of the farmer, then direct sales to the local market are also carried out

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by the farmer. Pricing is generally determined from bargaining between farmers and intermediary traders (agents). Price agreements that occur often make farmers fall on the price of oranges, so farmers' income to improve their welfare becomes difficult to achieve.

The decrease in purchases from agents (Commission Agents) is due to the declining quality of citrus fruits. One of the factors that influence the decline in the quality of citrus fruits is caused by deteriorating climatic conditions, ashfall and hot cloud slides from Mount Sinabung. The decline in the quality of oranges can also have an impact on profit margins that will decrease. There is a gap phenomenon, where sales increase but still make farmers complain because of the incompatibility with sales prices caused by the declining quality of citrus fruits. The declining quality of fruit so that the price of oranges becomes lower, should make the role of agricultural extension workers greater. Farmers still rely on farming experience as the basis for processing citrus plants. If the role of agricultural extension workers is greater, it can help farmers in improving the quality of oranges and good quality will increase the price of oranges.

## LITERATURE REVIEW

### Understanding Marketing

According to (Kotler & Armstrong, 2014) the definition of marketing is as follows: "A social process in which individuals and groups get what they need and want by creating, offering, and freely exchanging valuable products with others". According to (Tjiptono, 2012) the definition of marketing is as follows: "A total system of business activities designed to plan, set prices, promote, and distribute products, services, and ideas that are able to satisfy the desires of the target market in order to achieve organizational goals". (Tjiptono, 2012) says that one can assume there will always be a need for sales. However, the purpose of marketing is not to expand sales everywhere. The purpose of marketing is to know and understand the customer in such a way that the product or service matches the customer and subsequently sells itself. Ideally, marketing should produce a customer who is ready to buy. All that is needed next is to provide the product or service (American Marketing Association (AMA), 2009).

### Distribution Channel

The distribution channel is part of the marketing mix. The decision regarding distribution channels in marketing is one of the most critical decisions facing management. The channel you choose will influence all other marketing decisions. In order to distribute goods and services from producers to consumers, companies must really choose or select the distribution channels to be used, because errors in the selection of these distribution channels can hinder efforts to distribute these goods or services. (Situmorang & Lutfi M., 2014), defines that: "Distribution channel as a path traversed by the flow of goods from producers to intermediaries and finally to users. This definition is still narrow, and the term goods is often interpreted as a physical form.

### Understanding Commission Agent

According to (Kotler & Keller, 2016) Commission agent (often called commission trader or commissioner) is a person or entity that carries out buying and selling activities of goods acting on his own behalf, even though the goods are for others (owned by others). Commission agents are responsible for the actions and activities of buying and selling goods carried out. And the result obtained on its activities is called the commission. Unlike brokers, a commission agent is not required to be officially appointed and sworn in by certain officials in carrying out their work, they connect their auxiliary proxies (committees) with third parties under their own names.

### Climate

Weather is the total instantaneous state value of the physical variables of the atmosphere in a place. This value is obtained from the results of momentary measurements of atmospheric variables known as weather elements. These weather elements are air temperature, air humidity, air pressure,

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wind speed and direction, cloud cover and radiation intensity. The air that envelops the surface of the earth is called the atmosphere. Climate is the synthesis or formation of weather elements day by day in the long term that occurs in a large area. The classical limitation states that climate is the average state of weather over a sufficiently long period and over a large area. The synthesis includes the average, extreme values (maximum and minimum), the frequency of occurrence of certain values of weather elements or the frequency of climate types (Sabarudin, 2012). According to Sabarudin (2012), climate measurements are temperature, rain humidity, rainfall and solar irradiation.

### Profit Margin

Determination of margin value is the determination of profits from a certain amount of selling price by considering the profits to be taken, the costs borne including the anticipation of congestion and the period of return. While profit margin in Hariyadi's opinion (2012: 297) is a measure of management's ability to control operational costs in relation to sales. The lower the operating cost per dollar of sales, the higher the margin obtained. The profit margin ratio can also describe the company's ability to set the selling price of a product, relative to the costs incurred to produce the product.

### Definition of Sales

According to (Kotler, 2000), Sales is an integrated effort to develop strategic plans directed at satisfying the needs and desires of buyers, in order to get sales that generate profits. Sales are the lifeblood of a company, because from sales can be obtained profits and an effort to attract consumers who are trying to find out their attractiveness so that they can find out the results of the products produced. The level of sales has an important meaning, namely the magnitude of activities carried out effectively by sales to encourage consumers to make purchases. And the purpose of this level of sales is to estimate the amount of profit received by selling products to consumers and the costs that have been incurred.

## METHOD

### Research Approach

The type of research that the author uses in this study is quantitative research that aims to determine the relationship between two or more variables with research so that a theory can be built that can function to explain, predict and control symptoms (Rusiadi et al., 2016).

### Population and Sample

Population is a generalized area consisting of objects or subjects that have certain qualities and characteristics set by researchers to be studied, and then drawn a conclusion (Rusiadi et al., 2016). From the understanding of population above, it can be concluded that population is the total number of samples used in this study, namely sweet orange farmers in Kutabuluh Gugung Village, Kutabuluh District, Karo Regency, as many as 50 respondents. A sample is a portion of the population taken as a data source and can be representative of the entire population (Rusiadi et al., 2016). In this study, the author conducted a sampling technique by Non Probability Sampling, namely by using census sampling or saturated sampling because the entire population is sampled if the population is below 100. Therefore, the sample in this study was as many as 50 respondents.

### Data Analysis Techniques

#### Multiple Linear Regression

The data analysis model used to determine the magnitude of the influence of commission agents, climate and profit margins on sales is an econometric model with analytical techniques using ordinary least squares models. The model equation is as follows:

$$Y = \alpha + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \epsilon$$

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**Information:**

- Y = Sales (Dependent Variable)
- $\alpha$  = Constant
- $\beta$  = Multiple Regression Coefficient (Multiple Regression)
- X1 = Commission Agent (Independent Variables)
- X2 = Climate (Independent Variables)
- X3 = Profit Margin (Independent Variables)
- $\epsilon$  = Error term

**Test Goodness Of Fit**

**Simultaneous Test (Test F)**

This test was conducted to determine whether the effect of commission agents, climate and profit margins simultaneously had a significant effect on sales at the confidence level (Confidence Interval) or the level of hypothesis testing 5%.

**Partial Test (Test t)**

The Partial Test (t-test) shows how far the independent variables (commission agent, climate and profit margin) are from the dependent variable (sales). To find out whether or not the hypothesis proposed is accepted, a test is carried out.

**Coefficient of Determination (R<sup>2</sup>)**

The coefficient of determination is used to find out how much the relationship of several variables in a clearer sense (Rusiadi et al., 2016). The coefficient of determination will explain how much change or variation in a variable can be explained by changes or variations in other variables. Colloquially it is the ability of an independent variable to contribute to its dependent variable in percentage units.

**RESULTS AND DISCUSSION**

**Contents Results and Discussion**

**Multiple Linear Regression**

Multiple linear regression aims to calculate the magnitude of the influence of two or more independent variables on one dependent variable and predict the dependent variable using two or more independent variables. The formula of multiple regression analysis is as follows:

$$Y = \alpha + b_1X_1 + b_2X_2 + b_3X_3 + e$$

**Table 1. Multiple Linear Regression**

**Coefficients<sup>a</sup>**

Type	Unstandardized Coefficients		t	Sig.	Collinearity Statistics	
	B	Std. Error			Tolerance	VIF
1 (Constant)	2.150	2.359	.911	.367		
Commission Agent	.303	.123	2.468	.017	.535	1.869
Climate	.385	.157	2.449	.018	.692	1.444
Profit Margin	.334	.144	2.317	.025	.649	1.542

a. Dependent Variable: Sales

Source : SPSS Processing Results Version 16.0

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Based on table 1, multiple linear regression is obtained as follows:  $Y = 2.150 + 0.303 X_1 + 0.385 X_2 + 0.334 X_3 + e$ .

The interpretation of the multiple linear regression equation is:

1. If everything on the independent variables is considered zero then the sales value (Y) is 2.150.
2. If there is an increase in agent commissions by 1, then sales (Y) will increase by 0.303.
3. If there is an increase in climate by 1, then sales (Y) will increase by 0.385.
4. If there is an increase in profit margin by 1%, then sales (Y) will increase by 0.334.

### Test Goodness Of Fit

#### Simultaneous Significant Test (Test F)

The F test (simultaneous test) is performed to see the effect of the independent variable on the dependent variable simultaneously. The method used is to look at the level of significant ( $=0.05$ ). If the significance value is less than 0.05 then  $H_0$  is rejected and  $H_a$  is accepted.

**Table 2. Simultaneous Test ANOVAb**

Type	Sum of Squares	Df	Mean Square	F	Sig.
1 Regression	230.884	3	76.961	<b>19.075</b>	<b>.000a</b>
Residuals	185.596	46	4.035		
Total	416.480	49			

a. Predictors: (Constant), Profit Margins, Climate, Commission Agent

b. Dependent Variable: Sales

Source : SPSS Processing Results Version 16.0

Based on table 2. above it can be seen that  $F_{\text{calculate}}$  is 19.075 while  $F_{\text{table}}$  is 2.81 which can be seen in  $\alpha = 0.05$  (see appendix to table F). The significant probability is much smaller than 0.05 which is  $0.000 < 0.05$ , so the regression model can be said that in this study commission agents, climate and profit margins simultaneously have a significant effect on sales. Then the previous hypothesis is Accept  $H_a$  (reject  $H_0$ ) or the hypothesis is accepted.

#### Partial Significant Test (Test t)

The Partial Test (T-test) shows how far the independent variables individually explain the variation of this test performed using a significance level of 5%.

Based on table 3 above it can be seen that:

1. The effect of commission agents on sales.  
Significant testing with decision-making criteria:  
 $H_a$  is accepted and  $H_0$  is rejected, if  $t_{\text{count}} > t_{\text{table}}$  or  $\text{Sig. } t < \alpha$   
 $H_a$  is rejected and  $H_0$  is accepted, if  $t_{\text{count}} < t_{\text{table}}$  or  $\text{Sig. } t > \alpha$   
 $t_{\text{calculate}}$  is 2.468 while  $t_{\text{table}}$  is 1.678 and significant is 0.017, so  $t_{\text{calculate}} 2.468 > 1.678$   $t_{\text{table}}$  and significant  $0.017 < 0.05$ , then  $H_a$  is accepted and  $H_0$  is rejected, which states partially commission agent has a significant effect on sales.
2. The influence of climate on sales.  
Significant testing with decision-making criteria:  
 $H_a$  is accepted and  $H_0$  is rejected, if  $t_{\text{count}} > t_{\text{table}}$  or  $\text{Sig. } t < \alpha$   
 $H_a$  is rejected and  $H_0$  is accepted, if  $t_{\text{count}} < t_{\text{table}}$  or  $\text{Sig. } t > \alpha$

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tcount is 2.449 while ttable is 1.678 and significant is 0.018, so tcount is 2.449 > ttable is 1.678 and significant is 0.018 < 0.05, then Ha is accepted and H0 is rejected, which states partially that climate has a significant effect on sales.

3. The effect of profit margins on sales.

Significant testing with decision-making criteria:

Ha is accepted and H0 is rejected, if tcount > ttable or Sig. t < α

Ha is rejected and H0 is accepted, if tcount < ttable or Sig. t > α

tcalculate is 2.317 while ttable is 1.678 and significant is 0.025, so tcalculate 2.317 > ttable 1.678 and significant 0.025 < 0.05, then Ha is accepted and H0 is rejected, which states partially the profit margin has a significant effect on sales.

### Coefficient of Determination

This coefficient of determination analysis is used to determine the percentage of variation in the influence of the independent variable on the dependent variable.

**Table 4. Coefficient of Determination**

**Model Summary<sup>b</sup>**

Type	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.745 <sup>a</sup>	.554	.525	2.00866

a. Predictors: (Constant), Profit Margins, Climate, Commission Agent

b. Dependent Variable: Sales

Source : SPSS Processing Results Version 16.0

Based on table 4. above it can be seen that the adjusted R Square figure of 0.525 which can be called the coefficient of determination which in this case means 52.5% of sales can be obtained and explained by the commission agent, climate and profit margin. While the remaining 100% - 52.5% = 47.5% is explained by other factors or variables outside the model, such as product quality, location, service and others.

## CLOSING

### Conclusion

In relation to Commission agents, climate and profit margins affect the sale of sweet oranges in Kutabuluh Gugung Village, Kutabuluh District, Karo Regency, cooperation between farmers should be improved, especially knowledge in the field of marketing so that sales can increase. Likewise, the role of economic institutions such as cooperatives, fruit markets needs to be improved.

This study uses three independent variables to measure sales, but climate is dominant which affects sales, so that future researchers are expected to pay attention to these variables by developing more precise indicators or adding other variables so that they can see the effect on sales.

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