Examining Consumer Decisions on Bokashi Fertilizer: Insights from P4S "Karya Tani", Bagorejo Village, Gumukmas District, Jember Regency

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ABSTRACT

This research aims to test and analyze the influence of individual characteristics, the environment, and marketing communications on decision making to purchase production bokashi fertilizer P4S "Karya Tani" , both jointly and partially, and testing which variables have the most dominant influence on purchasing decisions. This research used a survey method with a sample size of 30 people conducted on consumers using P4S "Karya Tani" bokashi fertilizer. Overall, the results of this research can be concluded that individual characteristics, the environment, and marketing communications together have a significant influence on decision making to purchase bokashi fertilizer produced by P4S "Karya Tani". Partially, individual characteristics and marketing communications have a significant effect, while the environment has an insignificant effect. The factors that have a dominant influence on decision making to purchase P4S "Karya Tani" bokashi fertilizer are individual characteristics.

Keywords — consumer behavior, purchasing decision making, bokashi fertilizer

1. Introduction

Agriculture is a sector that plays an important role in national development as planned by the government, because the majority of Indonesian people still work in this sector. Based on BPS data as of February 2020, the majority of the workforce is also absorbed by the agricultural sector (42.8 million people) which is also a source of income for Indonesian people who work as farmers (http://www.bps go.id).

The impact on the environment and economy and farmers' income due to the use of chemical fertilizers is increasingly becoming a concern. Excessive use of chemical fertilizers will have an impact on the erosion of nutrient elements which are increasingly depleted so that the soil is damaged. On the other hand, the problem that arises is the scarcity of fertilizer due to the increase in prices.

Recently there has been a growing discourse on returning to nature in agricultural activities, including the use of natural materials (biological resources) for fertilizer and pesticide needs (pest control), which is known as an environmentally friendly organic farming system.

Nowadays, various kinds of organic fertilizers are sold on the market at varying prices, from cheap to expensive for farmers. Organic fertilizer is made from natural ingredients, such as animal dung, animal urine, or leaves which are actually widely found in the farmer's environment. Therefore, farmers can actually make their own organic fertilizer from natural ingredients (biological resources) from the surrounding environment, thereby saving production costs, and ultimately increasing farmer income.

In Jember Regency there are many businesses producing organic fertilizer carried out by Aponik (Organic Fertilizer Association), Gapoktan (Association of Farmer Groups), as

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well as entrepreneurs or farmers themselves. Based on data from the Jember Regency Agriculture Service in 2010, there was a report from the Head of UPTD Agriculture Region VIII Gumukmas which contained organic fertilizer producers in the Gumukmas sub-district and surrounding areas. This data can be described as follows:

Table 1.   Organic Fertilizer Producers in UPTD Agriculture Region VIII Gumukmas

No	Name	Institution	Capacity Production (tons/month)	Address	Information
1	Sholihin	P4S	100	Bagorejo	Commercially marketed
2	Ir. Iqbal	Gapoktan	40	Wringinagung	Groups and markets
3	Arkanudin	Gapoktan	30	Padomasan	Group
4	Juwarto	Poktan	40	Paleran	Markets and groups
5	Sulton	Poktan	20	Paseban	Groups and markets
6	Herman	Gapoktan	10	Chakra	Group
7	Salkoni	Poktan	20	Umbulrejo	Group
8	Hanto	Poktan	20	Wonorejo	Group
9	H. Mastur	Poktan	20	Gumukmas	Group
10	Hartono	Poktan	20	Chakra	Group
11	Muzed	Individual	20	Paseban	Commercial
12	P. Legi	Agroclinic	20	Sukoreno	Group
13	Sudarno	Poktan	20	Gunungsari	Group
14	H. Samsul	Gapoktan	20	Jombang	Group

Source: Jember Regency Agricultural Service, 2010.

Based on data from organic fertilizer producers at UPTD Agriculture Region VIII Gumukmas, there are forms of organic fertilizer production businesses being developed in Jember, especially in Gumukmas sub-district, one of which is already in production belongs to the Self-Help Agricultural and Rural Training Center (P4S) "Karya Tani" Bagorejo village. P4S "Karya Tani" was established on June 25 1986 with the address Jl. Soekarno Hatta 44 Bagorejo-Gumukmas and Mr HM Sholihin as the owner. P4S is an educational and training/apprenticeship institution operating in the agricultural and rural sectors which is owned and managed directly by farmers, either individually or in groups. One type of organic fertilizer produced and marketed by this institution is bokshi fertilizer with a production capacity of 100 tons per month.

Bokashi is an example of organic fertilizer that utilizes existing local potential. This is because there are many perceived advantages of bokashi fertilizer, such as easy to obtain raw materials, relatively short production time.

The increasing need for use of bokashi fertilizer by farmers is influenced by consumer purchasing behavior. Farmers' reasons for choosing bokashi fertilizer need to be analyzed to determine purchasing patterns. By knowing consumer behavior, it will encourage companies to create various strategies to absorb a larger market share from consumers.

2.   Method

The research design used in this research is *explanatory research ,* namely research that explains the causal relationship between variables through hypothesis testing [1]. Meanwhile, the method used in this research is *survey research* with a purpose to determine the influence of individual characteristics , the environment , and marketing communications partially and simultaneously on decision making to purchase bokashi fertilizer produced by P4S "Karya Tani" .

According to [1], a survey is research that takes samples from a population and uses a questionnaire as the main data collection tool.

Population according to [2] is a generalization area consisting of objects/subjects that have certain qualities and characteristics determined by researchers to be studied and then conclusions drawn. Based on the results of interviews on January 29 2022 at the research location, the population in this study were all people who bought bokashi fertilizer produced by P4S "Karya Tani" Bagorejo Village spread across the Gumukmas, Umbulsari, Kencong and Jombang subdistricts . Meanwhile, the sample is

part of the number and characteristics possessed by the population [2].

The sampling technique used in this research uses a *non-probability sampling* method , namely deliberately selecting a number of names from consumers who have previously purchased P4S "Karya Tani" bokashi fertilizer. The definition of *non-probability sampling* according to [2] is a sampling technique that does not provide equal opportunities for each element or member of the population to be selected as a sample. Researchers used a sampling technique through *Snowball Sampling* , namely by visiting Mr. HM Sholihin as Chair of P4S "Karya Tani" to obtain a number of consumer data. Then the researchers visited consumers who would be used as research respondents. The next stage, the researcher selected a number of new respondents who were deemed more knowledgeable and able to complete the desired data based on previous respondents' instructions. The definition of *Snowball Sampling* according to [2] is a technique for determining samples that are initially small in number, then grow like a snowball that rolls over time and becomes large. According to Roscoe in his book *Research Methods For Business* , as quoted by [2] the appropriate sample size for research is between 30 and 500. Researchers took a sample of 30 people who bought bokashi fertilizer produced by P4S "Karya Tani" Bagorejo Village within the last 3 years (January 2010 to December 2012) in the Jember Regency area. In 1 year, consumers who use P4S "Karya Tani" bokashi fertilizer usually buy 3 times to be used in 3 growing seasons.

A research instrument is a tool used to measure observed natural and social phenomena. The main instrument used in this research was a questionnaire distributed to buyers of bokashi fertilizer produced by P4S "Karya Tani" to obtain data.

The scoring in this questionnaire is by using a Likert scale system, namely:

Table 2. Scoring for Questionnaire Answers

Closed Statement Answer Type			Score
Conformity Level	Satisfaction Level	Purchase Frequency	
Strongly Disagree (STS)	Very Dissatisfied	Sometimes	1
Disagree (TS)	Not satisfied	Seldom	2
Agree (S)	Satisfied	Often	3
Strongly Agree (SS)	Very satisfied	Always	4

The data taken in this research comes from answers from consumers who used P4S "Karya Tani" bokashi fertilizer for the last 3 years. Every year consumers buy bokashi fertilizer 3 times for 3 growing seasons. So, for the frequency of purchases, if we calculate that consumers have used bokashi fertilizer 12 times over the last 3 years. So, for the answers to the purchase frequency questionnaire, the following benchmarks are made:

- Answer a. Sometimes :
  Consumers make purchases 1-3 times
- Answer b. Seldom :
  Consumers make purchases 3-6 times
- Answer c. Often :
  Consumers make purchases 6-9 times
- Answer d. Always :
  Consumers make purchases 9-12 times.

The Likert scale is used to measure attitudes, opinions, And the perception of a person or group of people about social phenomena (Sugiyono, 2011).

Before a research questionnaire is declared ready or suitable for use in research, the questionnaire will be tested first using validity and reliability tests.

Determining the research location was *purposive* , namely selecting the research location deliberately based on the objectives to be achieved in this research [1]. The research locations chosen were respondents who lived in the Bagorejo Village area, Gumukmas District and Sukereno Village, Umbulsari District . The time required for this research was 3 months, namely September-November 2012. The research location was determined deliberately on the basis that Bagorejo Village is the area where P4S "Karya Tani" bokashi fertilizer is produced and Sukereno Village was based on instructions from the management of the "Karya Tani" P4S Institute.

According to [3], based on the source of collection, data is divided into two, namely primary data and secondary data.

a. Primary data

Primary data is data obtained or collected directly in the field by the person conducting the research or who needs it. Primary data is also called original data or new data.
Example :
Questionnaire data (data obtained through questionnaires), survey data, data observation, and so on.

b. Secondary Data

Secondary data is data obtained or collected by people conducting research from existing sources. Data is usually obtained from libraries or previous research reports.
Example :
Data that is already available in certain places, such as libraries, BPS, offices, and so on.
Research data collection is intended as recording events or characteristics of some or all elements of the research population. Research data collection can be carried out based on certain methods .
The technique used in collecting data for this research is:

a. Interview

According to [1] interviews are a process of interaction and communication. In this process the interview is determined by several factors that interact and influence the flow of information. These factors are the interviewer, the respondent, the research topic stated in the list of questions, and the interview situation.

b. Questionnaire

According to [4], a questionnaire is a data collection tool where the data will later be processed to produce certain information. This information can be obtained by giving a score or weight to each answer to each question.

c. Documentation

Used to obtain secondary data originating from written research evidence. For example, the documentation used in this research is photos which can support this research. This documentation method is used to obtain secondary data.

2.1. Validity test

According to [5] to measure the validity of a questionnaire in a study you can use the following formula:

$$r = \frac{n(\sum xy) - (\sum x)(\sum y)}{\sqrt{n \sum x^2 - (\sum x)^2][n \sum y^2 - (\sum y)^2]}}$$

Information :
r = correlation value (comparison test with critical r value table)
n = number of respondents
x = respondent's answer score per question
y = total score of answers to all questions for a respondent.

If the calculated r value is greater than the table r, then the questionnaire distributed is declared valid.

2.2. Reliability Test

According to [6] *Cronbach's alpha* formula is as follows:

$$r11 = \left(\frac{k}{k-1}\right)\left(1 - \frac{\sum \sigma b^2}{\sigma^2 t}\right) \qquad \sigma^2 \ldots = \frac{\sum x^2 - \frac{\sum (x)^2}{N}}{N}$$

Information :
r_{11} = instrument reliability
k = number of questions
$\sum \sigma b^2$ = total item variance
$\sigma^2 t$ = total variance amount

2.3. Multiple Linear Regression Analysis

According to [7] the formula for multiple linear regression analysis is as follows:

$$Y = a + b_1 X_1 + b_2 X_2 + b_3 X_3 + e$$

Information :
Y = dependent variable (purchase decision)
A = Constant
b1,b2,b3 = regression coefficient

e   = confounding variable
X1,X2,X3 = independent variables (individual characteristics, environment, and marketing communications).

The coefficient of determination is used to measure how far the model's ability to explain variations in the dependent variable. The value of the determinant coefficient is between zero and one. If there is only one independent variable then R^2 is used, but if there is more than one independent variable then *adjusted* R^2 is used, thus this measurement uses *adjusted* R^2. For every additional independent variable, R2 ^{will} definitely increase no matter whether that variable has a significant effect on the dependent variable. Meanwhile, the *adjusted R* value $^{is\ 2}$ can increase or decrease if one dependent variable is added to the model.

$$Adjust\_R\_square = \frac{1-(n-1)}{(n-k)(1-R^2)}$$

Information :
R^2 = Coefficient of multiple determination
n = Number of respondents
k = Number of independent variables

F test analysis is used to test whether there is an influence of the independent variables together on the dependent variable . Where the F test formula according to [2] is as follows:

$$F = \frac{R^2 / k}{(1-R^2)\ (n-k-1)}$$

Information:
F = simultaneous testing
R^2 = coefficient of multiple determination
k = number of independent variables
n = number of samples

By comparing the $_{calculated\ F}$ with the F $_{table}$ at α= 0.05 and comparing the F $_{hit\ probability\ value}$ from the calculation results with *a level of significance (α)* of 0.05 if the calculation results show:

a. F $_{count}$ > F $_{table}$, and the probability value of $_{F\ count}$ < *level of significance (α)* 0.05 then Ha $_{is}$ accepted . This means that variations in the regression model are successful in explaining variations in the independent

variables as a whole, to what extent they influence the dependent variable.

b. F $_{count}$ < F $_{table}$, and the probability value of $_{F\ count}$ > *level of significance (α)* 0.05 and Ha $_{is}$ rejected . This means that variations in the regression model fail to explain the independent variation as a whole, to the extent of its influence on the dependent variable .

According to [8], the way to determine the F $_{table}$ is that the F $_{table}$ can be seen in the statistical table (see attachment 6) at a significance level of 0.05 with df 1 (number of variables - 1), and df 2 (nk-1) (df is the degree freedom, n is the amount of data, and k is the number of independent variables).

analysis is used to determine how far each independent variable influences the dependent variable. The t test formula according to [2] is:

$$t = \frac{b_k}{Sb_k}$$

Information :
t = individual testing
bk = Partial Correlation
Sbk = Number of Samples

Through the t test by comparing the $_{calculated\ t}$ with the t $_{table}$ at α0.05 and comparing the probability value of the calculated t $_{calculated\ results}$ with *a level of significance (α)* of 0.05. If the calculation results show:

a. t $_{h\ count}$ > t $_{table}$, and $_{the\ calculated\ probability}$ value < *level of significance (α)* 0.05 then Ha $_{is}$ accepted . This means that variations in the independent variable can explain the dependent variable and there is a significant influence between the two variables tested.

b. t $_{calculated}$ < t $_{table}$, and $_{the}$ probability value t $_{calculated}$ > *level of significance (α)* 0.05 then Ha $_{is}$ rejected . This means that variations in the independent variable cannot explain the dependent variable and there is no significant influence between the two variables tested.

According to [8], the way to determine the t table is that the t table can be seen in the statistical table at a significance of 0.05 with

degrees of freedom df = nk-1 (n is the amount of data and k is the number of independent variables).

3. Discussion

3.1. Validity Test Results

According to [1], the validity test shows the extent to which the measuring instrument measures what it wants to measure. This test is carried out to find out whether the items presented in the questionnaire are truly able to reveal with certainty what will be studied.

The results of this validity test can be briefly seen in Table 1.3 below :

Table 3.   Questionnaire Validity Test Results

Variable	Question Items	r count	r table	Information
Individual Characteristics (X1)	X1.1	0.483		Valid
	X1.2	0.517		Valid
	X1.3	0.364		Valid
	X1.4	0.416		Valid
	X1.5	0.641		Valid
Environment (X2)	X2.1	0.491		Valid
	X2.2	0.399		Valid
	X2.3	0.571		Valid
	X2.4	0.512		Valid
	X2.5	0.440	0.361	Valid
	X2.6	0.579		Valid
Marketing Communications (X3)	X3.1	0.403		Valid
	X3.2	0.697		Valid
	X3.3	0.531		Valid
	X3.4	0.430		Valid
	X3.5	0.511		Valid
Buying decision (Y)	Y1	0.423		Valid
	Y2	0.421		Valid
	Y3	0.427		Valid
	Y4	0.533		Valid

Source: Primary data 2013 (attachment 3)

Based on Table 3 , by testing using SPSS 1 6.00 *for windows* it is known that the correlation coefficient for the individual characteristics, environment and marketing communications variables is positive and greater than the critical r value of 0.3 61 , so it can be concluded that the items The question items in the research instrument are valid.

3.2. Results Reliability Test

Reliability testing is a test tool that is used to determine the consistency of a measuring instrument in its use, or in other words, the measuring instrument has consistent results when used many times at different times.

The method used to measure the reliability of the instrument in this research is to use the *Cronbach alpha* (α) formula. According to [9] explains that "If the *Cronbach alpha* (α) value is close to 1, it means that the questionnaire measurement is reliable . " The following are the results of the reliability test using SPSS 16.00 *for Windows* which can be seen in Table 4 below:

Table 4.   Summary of Reliability Test Results Questionnaire

Reliability Statistics

Cronbach's Alpha	N of Items
,725	20

Source: Primary data processed in 2013 (attachment 3)

Based on Table 4, the test value obtained is 0.725 or in other words the test value is close to 1, so in this case the instrument used is reliable, that is, it has consistent results even though it is used many times at different times. And has been able to show the extent to which a measurement result is relatively consistent if the measurement is repeated two or more times.

3.3. Multiple Linear Regression Analysis

Results of multiple linear regression calculations between the independent variables individual characteristics (X1), environment (X2) and marketing communications (X3) The dependent variable, namely purchasing decisions (Y), can be seen in the following table:

Table 5.   Results of Multiple Linear Regression Analysis Between Independent Variables (X1, X2, and X3) on the Dependent Variable (Y)

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	,256	1,885		.136	,893
X1.Total	,391	,119	,488	3,271	,003
X2.Total	,140	.104	,206	1,350	,189
X3.Total	,273	.116	,300	2,355	.026

Source: Primary data processed in 2013

From Table 1.5, it can be concluded that the multiple linear regression equation is as follows:

Y = 0.256 + 0.391 X1 + 0.140 X2 + 0.273 X3 + e

Furthermore, the multiple linear regression equation above can be explained as follows:

a. The constant value is 0.256

The constant value is positive, meaning that there are factors that influence purchasing decisions (Y), including variables individual characteristics (X1), environment (X2) and marketing communications (X3) will increase the purchasing decision itself by 0.256 . Meanwhile, if the factors are individual characteristics (X1), environment (X2), and marketing communications (X3) equals 0 (zero), then the purchasing decision (Y) is constant , namely 0.256 .

b. Coefficient value individual characteristics (X1) of 0.391

The coefficient value of individual characteristics (X1) shows 0.391, meaning that there is a positive influence on purchasing decisions and every increase in individual characteristic factors (X1) by 1 unit will increase purchasing decisions (Y). P4S "Karya Tani " bokashi fertilizer is 0.391 units assuming X2 and X3 are constant.

c. Coefficient value environment (X2) of 0.140

environmental coefficient value (X2) is 0.140 , which means the environment has a positive influence on purchasing decisions and every increase in the value of environmental factors (X2) by 1 unit, it will increase the purchasing decision (Y) of P4S "Karya Tani" bokashi fertilizer by 0.140 units with the assumption that X1 and X3 are constant .

d. Coefficient value marketing communications (X3) of 0.273

The marketing communication coefficient value (X3) is 0.273 which means has a positive influence on purchasing decisions and every increase in marketing communication value (X3) by 1 unit will increase the purchasing decision (Y) of P4S "Karya Tani" bokashi fertilizer by 0.273 units assuming X1 and X2 are constant.

3.4. Determination Coefficient Analysis (Adjusted R2)

Result of Determination Coefficient using SPSS version 1 calculation 6 .00.

Table 6. Results of Analysis of the Coefficient of Determination (*Adjusted R square*) Between the Independent Variables (X1, X2, and X3) and the Dependent Variable (Y)

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.817 [a]	,667	,628	.63542

Source: Primary data processed in 2013

Based on Table 6 above, it is known that the results of this analysis obtained a value of the Determination Coefficient (Adjusted R square) of 0.628 or 63%. This value also shows the contribution of the independent variable to the dependent variable and the remaining 37% is influenced by other factors that are not included in the model or also called error factors (such as psychological factors, product, price and distribution channels).

R is a measure used to measure the level of closeness of the relationship between the independent variable and the dependent variable. In table 1.6 the R value is written as 0.817.

Table 7. Guidelines for Providing Interpretation of Correlation Coefficients

Coefficient Interval	Relationship Level
0.00 - 0.199	Very low
0.20 - 0.399	Low
0.40 - 0.599	Currently
0.60 – 0.799	Strong
0.80 – 1,000	**Very strong**

Source: Sugiyono, 2011 :231

From the guidelines for providing an interpretation of the correlation coefficient from table 1.7 above, the correlation value of the independent variable (X), namely 0.817, is in the strong range because it is in the interval 0.80-1,000.

3.5. Test Regression Coefficients Together (F Test)

F test results calculated using the SPSS 16.00 program.

Table 8. F Test Results on Joint Regression Coefficients

Model	Sum of Squares	df	Mean Square	F	Sig.
1 Regression	21,002	3	7,001	17,339	,000 ᵃ
Residual	10,498	26	.404		
Total	31,500	29			

Source: Primary data processed in 2013

The F $_{table}$ can be obtained at a significance level of 0.05 with df (number of variables-1) = 3, and df 2 (nk-1) or 30-3-1 = 26. The results obtained for the F $_{table}$ are 2.98.

Based on Table 1.8 above, if you use the first method it can be seen that the results of the multiple linear regression analysis obtained a $_{calculated\ F\ value}$ of 1 7.339 which shows that the $_{calculated\ F\ value}$ is greater than the F $_{table}$, namely 2.98, so Ha is accepted . Likewise, if you use the second method, from the table above it can be seen that the results of the $_{calculated\ F\ probability\ analysis}$ are 0.000, which shows that the $_{calculated\ F\ probability\ value}$ is smaller than *the level of significance (α)* of 0.05, so in this case Ha is accepted , namely that the independent variables are individual characteristics (X1), environment (X2), marketing communications (X3) influence together on the dependent variable, namely purchasing decisions (Y).

3.6. Coefficient Test Partial Regression (t Test)

The t test results were calculated using the SPSS 16.00 program.

Table 9. Results of the t test on partial regression coefficients

Variable	t $_{count\ ung}$	t $_{tab}$	Prob.	Sig.	Information
X1	3,271		0.003		Significant
X2	1,350	2.06	0.189	0.05	Not
X3	2,355		0.026		Significant

Source: Primary data processed in 2013

Determine t table obtained at a significance of 0.05 with degrees of freedom df = nk-1 or 30-3-1 = 26. The results obtained for the t table are 2.06.

Based on the results of multiple linear regression analysis in Table 5.19 above, it can be explained as follows:

a. The independent variable individual characteristics (X1), has a calculated t value of 3.271 is greater than the t table of 2.06 and the calculated probability value of 0.003 is smaller than the level of significance (α = 0.05). This means that individual characteristics as an independent variable (X1) have a significant effect on purchasing decisions (Y), so Ha is accepted .

b. Environmental independent variable (X2) has a calculated t value of 1.350 which is smaller than the t table equal to 2.06 and probability value The t calculated probability value of 0.189 is greater than the level of significance (α = 0.05). This means that the environment as an independent variable (X2) has an insignificant effect on purchasing decisions (Y), so Ha is rejected .

c. The independent variable marketing communications (X3), has a calculated t value of 2.355 bigger than t table is 2.06 and the calculated t probability value is

0.026 smaller than the level of significance (α = 0.05). This means that marketing communication as an independent variable (X3) has a significant effect on purchasing decisions (Y), so Ha is accepted.

Based on calculations from the results of the F test and t test, the first hypothesis states that the independent variables consist of individual characteristics, the environment and marketing communications. have a joint influence on consumer behavior in making decisions to purchase P4S "Kary a Tani" bokashi fertilizer. However, the second hypothesis is different, which states that the variables of individual characteristics, environment and marketing communication partially have a significant influence on decision making to purchase bokashi fertilizer produced by P4S "Karya Tani" and Ha is rejected. This is because partially there is 1 independent variable that has no significant effect on purchasing decisions, namely the environmental variable. Furthermore, for the third hypothesis which suspects that individual characteristic variables have the most dominant influence on decision making to purchase bokashi fertilizer produced by P4S "Karya Tani" is Ha accepted. The value of the individual characteristic variable that is tested partially has a calculated t value which is greater, namely 3.271, of the two independent variables (environment and marketing communications) from the t table value which is 2.06 and the t calculated probability value is also smaller than the level of significance (α) 0.05 so it has the most dominant influence.

Based on the results of research conducted at the P4S Institute "Karya Tani" Bagorejo Village, Gumukmas District, Jember Regency, the influence of individual characteristics, environment and marketing communications on decision making to purchase bokashi fertilizer is as follows:

Individual characteristics (X1), environment (X2), and marketing communications (X3) together they have a significant effect on purchasing decisions (Y), this is shown by the calculated F value of 1 7.339 and the F probability value is 0.000. These results are in accordance with previous researchers, such as [10], who conducted research on the influence of environmental factors, individual factors, and marketing communication factors on decisions to purchase pharmaceutical drugs between pharmacies in Sukoharjo Regency and pharmacies in Surakarta City. Furthermore, it is supported by research by [11] analyzing the factors that influence consumers in making decisions to purchase Indomie Goreng brand instant noodles at the Jember State Polytechnic with the results of research using the F test analysis technique showing that individual consumers (X1), the environment (X2), and marketing strategy (X3) together have a significant effect on purchasing decisions (Y), where the calculated F value is 122.441 which shows that the calculated F value > F table is 2.65.

Partially it can be seen that individual characteristics (X1) have a significant influence on purchasing decisions (Y), this is shown by the calculated t value of 3.271 > t tab el amounting to 2.0 6 and is also shown by the t probability value of 0.003 which is smaller than the level of significance (α = 0.05). The influence of individual characteristics is very strong because most of the respondents who used the P4S "Karya Tani" bokashi fertilizer studied had been using this type of fertilizer for a long time. The confidence factor in the product is considered strong because Respondents felt that after using bokashi fertilizer the soil became more fertile, the production of agricultural crops increased. This confidence factor is supported by the relatively cheap price of P4S "Karya Tani" bokashi fertilizer, namely IDR 500.00 per Kg or IDR 25,000.00 per 50 Kg. Apart from that, the P4S "Karya Tani" bokashi fertilizer has sufficient nutritional content to fulfill the nutrients in the soil and has passed the Soil Laboratory Test at the Jember State Polytechnic in 2008.

This research is supported by research by [12] which analyzes the influence of environmental factors, individual factors and the marketing mix on the decision to purchase herbal medicine products from PT Deltomed Wonogiri in the Surakarta area. In this case the most dominant influencing variable is the individual factor. This research is also consistent with research by [12] entitled Factors that Influence Consumers in Making Decisions to Purchase Indomie Goreng Brand Instant Noodles at the

Jember State Polytechnic. The individual consumer variable is shown by a calculated t value of 5.358, which means that the calculated t is greater than the t table of 1.960. This shows that individual consumers determine how a consumer chooses based on age, pocket money, personality and lifestyle .

The influence of the environment (X2) on purchasing decisions (Y) has a calculated t value of 1,350 < t tab el of 2.06 and the t probability value of 0.189 which is greater than the level of significance (α = 0.05), this shows that environmental variables partially have an insignificant effect on purchasing decisions. Environmental factors do not have a significant influence because The habit factor of farmers who still use chemical fertilizers predominantly for basic fertilization is the main reason . Furthermore, the function of direct invitations or suggestions from family members, colleagues, or social groups to use bokashi fertilizer still requires a long process. In this case, the P4S "Karya Tani" managers and field extension officers from the local agricultural service need to collaborate with university academics as experts to emphasize the importance of using bokashi fertilizer to the community.

Another obstacle faced is complaints from users due to the presence of weed seeds in the fertilizer which causes bushes to grow after the fertilization process. In contrast to manufactured organic fertilizers which choose to kill the microorganisms contained in the fertilizer, the P4S "Karya Tani" bokashi fertilizer is produced without killing the microorganisms in the fertilizer content. This is intended to maintain the quality and quality of the bokashi fertilizer. Apart from that, the availability of raw materials for bokashi fertilizer, which sometimes stagnates, causes production to experience stagnation, in addition to seasonal factors and rainy weather, which results in no production of business activities so that they cannot fulfill orders for bokashi fertilizer. On the other hand, the P4S institution "Karya Tani" has to face its competitors, namely petroganic fertilizer produced by PT. Petrosida Gresik which is commonly found in agricultural shops in the Jember district. Improving facilities and equipment quantitatively and qualitatively is important to overcome the problem of stagnation in the production process. Furthermore, it is hoped that improvements in infrastructure will also result in an increase in the quality and quality of bokashi fertilizer so that it is not inferior to manufactured organic fertilizer.

This research is supported by previous research which states that [13] with the title The Influence of Environmental Factors and Personal Factors on Drug Purchasing Decisions at Kimia Farma Pharmacy No. 27 Medan stated that from the partial test it was found that the environmental variable was 0.265 . This shows that individually environmental factors have no significant influence on drug purchasing decisions at Kimia Farma Pharmacy No. 27 Medan. Contrary to research, [10] conducted research on the influence of environmental factors, individual factors, and marketing communication factors on decisions to purchase pharmaceutical drugs between pharmacies in Sukoharjo Regency and pharmacies in Surakarta City . The results are for the district area with a significance level of 5% for environmental variables (X1) is significant at a probability of 0.041.

The influence of marketing communications (X3) on purchasing decisions (Y) has a calculated t value of 2,355 > t tab el of 2.0 6 and a probability value of t of 0.0 26 which is smaller than the level of significance (α = 0.05), this shows that marketing communication partially has a significant effect on purchasing decisions.

Mr. HM Sholihin as the manager of the P4S institution "Karya Tani" actively provides training on making bokashi organic fertilizer to farmer groups and other community organizations in the form of field schools assisted by the local Agriculture Service. Apart from that, the P4S institution "Karya Tani" also uses leaflets and door to door marketing concepts to introduce its products. With the pilot concept, namely using elements of community leaders as figures who use bokashi fertilizer, it has been implemented and proven to be effective in improving the marketing performance of P4S "Karya Tani" bokashi fertilizer. The process of fostering good public relations is also carried out by the P4S institution "Karya Tani" to maintain relationships between sellers and buyers so as to create buyer satisfaction and loyalty. Henceforth,

it is important to increase the use of billboards or banners as promotional media to clarify the identity of a product being marketed. This research is consistent with [10] research with the title The Influence of Environmental Factors, Individual Factors, and Marketing Communication Factors on the Decision to Purchase Pharmaceutical Drugs Between Pharmacies in Sukoharjo Regency and Pharmacies in Surakarta City with an explanation at a significance level of 5% for the district area. Marketing communication variables have a significant effect on purchasing decisions at a probability of 0.036. This research is also supported by research by Santoso and Kunarto (2008) with the title Analysis of Students' Internal Factors and Marketing Mix on Tea Purchasing Decisions (Case Study of Boarding House Students in Semarang) which partially explains that promotional variables have a significant influence on tea purchasing decisions with a calculated t value of 2.332 > t table of 1.662 and the significance result of 0.027 is smaller than 0.05.

4. Conclusion

Based on the results of research analysis and discussion in the previous chapter, the following conclusions can be drawn:

a. Testing jointly concluded that individual characteristics ($X1$), environment ($X2$), and marketing communications ((Y).

b. Partial regression testing obtained the following conclusions:

- Individual characteristic variables ($X1$) have a significant effect on purchasing decisions (Y).
- Environmental variables ($X2$) have an insignificant effect on purchasing decisions (Y).
- communication variable ($X3$) has a significant effect on purchasing decisions (Y).

c. Partial regression testing concluded that the individual characteristic variable ($X1$) has the most dominant influence on consumer purchasing decisions (Y)

compared to environmental variables (X2) and marketing communications (X3).

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