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The Effect of Product Differentiation and Customer Relationship on the Increase in Organic Fertilizer Sales in Sidoarjo Regency

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Abstract

This study is intended to evaluate the impact of product differentiation and customer relations on the increase in organic fertilizer sales volume in the Sidoarjo Regency area. A quantitative approach was applied through a survey involving 120 participants, namely farmers and organic fertilizer traders in the area. Sample selection was carried out by stratified random sampling technique. Information collection was carried out through a questionnaire, then processed using multiple linear regression analysis with the support of SPSS software version 25. The findings of the study revealed that product differentiation had a significant positive effect on the increase in organic fertilizer sales, with a coefficient of 0.458 ($p<0.05$). Similarly, customer relationships showed a significant positive impact on the increase in sales, with a coefficient of 0.412 ($p<0.05$). Simultaneously, product differentiation and customer relationships contributed significantly to the increase in organic fertilizer sales, with a percentage of 71.6% ($R^2 = 0.716$), while the remaining 28.4% were influenced by external variables that had not yet been explored. This study suggests that organic fertilizer makers in Sidoarjo Regency continue to innovate in product differentiation and strengthen long-term ties with consumers to encourage higher sales.

Keywords: Product Differentiation, Customer Relationship, Sales, Organic Fertilizer, Sustainable Agriculture

INTRODUCTION

Background

In Indonesia, agriculture continues to function as the main foundation of the country's economy, making a significant contribution to the Gross Domestic Product

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(GDP) and absorbing a large amount of labor. In an effort to increase sustainable agricultural productivity, the use of organic fertilizers is becoming increasingly important as an alternative to chemical fertilizers that have long dominated the agricultural sector. According to data from the Ministry of Agriculture, the use of organic fertilizers in Indonesia has continued to increase by 15-20% per year since 2018 (Kementerian Pertanian Republik Indonesia, 2020).

Sidoarjo Regency, which is located in the East Java Province, is one of the areas with a fairly developed agricultural sector. The area of agricultural land there reaches 21,127 hectares, which includes rice fields, moors, and plantations (BPS Kabupaten Sidoarjo, 2023), Sidoarjo Regency has great potential in the development of organic agriculture. However, the adoption of organic fertilizers among farmers still faces various challenges, including competition with previously known chemical fertilizers and a lack of understanding among farmers about the long-term benefits of organic fertilizers.

In the midst of increasingly fierce competition, organic fertilizer makers must adopt efficient marketing tactics to increase sales volume. As stated by (Kotler & Armstrong, 2018), "Product differentiation is a step in designing a series of important differences to separate a company's offer from a competitor's." Product differentiation strategies are an important strategy because they can create a competitive advantage that is difficult for competitors to replicate.

In addition to product differentiation, customer relationships are also a key factor in increasing sales. According to (Buttle & Maklan, 2019), "Customer Relationship Management (CRM) refers to a business's primary strategic approach that brings together internal procedures and functions, coupled with external networks, to generate and deliver value to the intended customer, with a primary focus on profit generation." In the context of the organic fertilizer business, building strong relationships with farmers as key customers can increase loyalty and repeat purchases.

Several previous studies have examined the influence of product differentiation and customer relationship on sales performance. Studies conducted by (Tjiptono & Diana, 2020) reveals that "successful product differentiation can increase customer perceived value and ultimately drive purchase decisions." Meanwhile, research (Peppers & Rogers, 2017) states "Businesses that use a solid customer relationship approach can increase customer retention rates by 27% and increase profits by up to 25%."

However, research that specifically analyzes the influence of product differentiation and customer relationship on organic fertilizer sales, especially in Sidoarjo Regency, is still inadequate. Thus, this study was conducted to bridge the gap and provide practical contributions to organic fertilizer business people in developing a more successful marketing approach.

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LITERATURE REVIEW

Product Differentiation

Product differentiation strategies are used by companies to make their products stand out compared to competitors' products. By (Kotler & Armstrong, 2018), "Product differentiation is the act of designing a meaningful set of differences to differentiate a company's offering from a competitor's offering."

(Tjiptono & Diana, 2020) Product differentiation is an approach in marketing that aims to create characteristics in a good or service so that it can look different compared to the offers of competitors. Differentiation can be done through various dimensions such as product features, quality, design, technology, or additional services.

(Porter, 2015) states that "differentiation provides protection against competition because it generates brand loyalty and reduces customer price sensitivity." Thus, product differentiation not only helps companies win the competition, but also creates added value for customers.

In the context of organic fertilizers, differentiation can be carried out through various means such as special formulas containing certain microorganisms, practical packaging, organic certification, or agronomic consulting services to farmers. According to (Kotler & Keller, 2016), "Effective differentiation must meet several main criteria, namely having uniqueness, providing excellence, easy to convey to consumers, difficult to imitate, affordable, and able to generate profits."

Product Differentiation Indicator

According to (Fandy Tjiptono, 2014), Product differentiation indicators include:

1. Product uniqueness: Special characteristics that distinguish it from similar products
2. Product quality: The level of product excellence in meeting customer needs
3. Product features: Additional attributes that complement the basic functions of the product
4. Design and packaging: Attractive and functional physical appearance of the product
5. Product innovation: The process of creating new products and continuously improving products
6. Certifications and standards: Official recognition of product quality (e.g. organic certificates)

Customer Relationship

Customer relationship is a process that companies carry out to build and maintain long-term mutually beneficial relationships with their consumers. According to (Buttle &

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Maklan, 2019), "Customer Relationship Management (CRM) is a core business strategy that brings together various internal functions and processes as well as external networks to create and deliver value to target customers with the goal of profiting."

(Peppers & Rogers, 2017) defines customer relationships as "a systematic approach to identifying, establishing and maintaining closeness with customers through the management of continuous interactions over time to maximize customer lifetime value."

(Zeithaml et al., 2018) states that "strong customer relationships can increase loyalty, reduce the cost of acquiring new customers, and increase profitability through repeat purchases and word-of-mouth recommendations." In the organic fertilizer industry, building a good relationship with farmers is essential because fertilizer purchasing decisions are often based on previous beliefs and experiences.

According to (Kotler & Armstrong, 2018), "Customer relationship management includes in-depth management of customer data and the planned management of every point of interaction with customers, so that companies can optimally increase customer loyalty."

Indicator Customer Relationship

According to (Buttle & Maklan, 2019), Customer Relationship indicators include:

1. Effective communication: The intensity and quality of communication between the company and customers
2. Customer trust: The level of customer confidence in the product and the company
3. Corporate commitment: The company's willingness to maintain long-term relationships
4. Complaint handling: The company's response to the problem the customer is facing
5. Loyalty program: Incentives provided to retain loyal customers
6. Service personalization: Customization of products or services according to individual customer needs
7. Continuous interaction: Frequency and consistency of relationships with customers

Sales

Sales can be interpreted as an activity or series of processes in which goods or services are exchanged for money by the seller to the buyer. As stated by (Swastha & Irawan, 2015), "Sales is an interaction between individuals who meet face-to-face that is intended to create, improve, master, or maintain an exchange relationship so that it is beneficial to the other party."

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In a more comprehensive view, (Kotler & Keller, 2016) Describe sales as "a social and managerial process in which individuals and groups obtain what they need and want through the creation and exchange of products and value with others." Increased sales are an important indicator of the success of the company's efforts to achieve marketing objectives effectively." While (Stanton et al., 2016) stated, "Sales increase can be measured by sales volume, sales value, and sales growth in a given period."

Indicators of Sales Increase

According to (Swastha & Irawan, 2015), Indicators of sales increase include:

1. Sales volume: The total units of goods that were successfully sold within a predetermined period of time.
2. Sales value: Total revenue from product sales in a given period
3. Sales growth: The percentage increase in sales compared to the previous period
4. Market share: The proportion of a company's sales to the total sales of the industry

Relationships Between Variables

The Effect of Product Differentitation on Sales Increase

A well-done product differentiation is able to strengthen the competitive position of a product, which ultimately contributes to an increase in sales volume. Study by (Tjiptono & Diana, 2020) revealed that "product differentiation has a positive and significant effect on sales volume with a contribution of 58.3%." Differentiated products create a higher perceived value in the eyes of consumers so that they are willing to pay a premium price or choose the product over competitors' products.

In the context of organic fertilizers, differentiation can be in the form of more effective special formulas, practical packaging, or free consulting services. Research (Santoso & Rahayu, 2019) It found that "organic fertilizer producers who innovated products sustainably saw an average increase in sales of 23% per year, higher than producers who did not differentiate." (Porter, 2015) It also affirms that "the differentiation strategy allows companies to avoid price wars and compete based on the unique value offered, so that profit margins and sales volumes can be maintained or increased."

The Influence of Customer Relationships on Sales Increase

Good customer relationships can increase loyalty and encourage repeat purchases, which ultimately increases sales. Research (Peppers & Rogers, 2017) indicates that "businesses that implement CRM well are able to increase consumer loyalty by up to 27% and increase sales volume by 32%."

In the organic fertilizer industry, building farmer trust is crucial because purchasing decisions are often influenced by experience and recommendations from other farmers.

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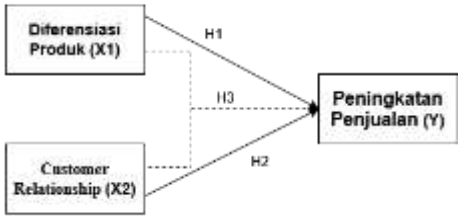
Research (Wahyudi & Susanto, 2018) It found that "organic fertilizer producers who actively communicate with farmers, provide education, and respond to complaints quickly experienced a 28% higher increase in sales than producers who did not implement a customer relationship strategy."

(Zeithaml et al., 2018) It also states that "the cost of retaining existing customers is 5-7 times cheaper than the cost of acquiring new customers, so investing in customer relationships provides better returns in the long run."

Frame of Mind

Based on the literature review, the conceptual framework of this research can be illustrated as follows:

Figure 1 Conceptual framework of the research



Source: Processed Researcher

Information:

- Product differentiation (X1) and customer relationship (X2) are independent variables
- Increase in organic fertilizer sales is a dependent variable (Y)
- H1, H2, and H3 indicate the hypothesis to be tested

Research Hypothesis

Based on the framework of thought and theoretical studies above, the hypothesis in this study is:

1. H1: Product differentiation has a positive and significant effect on increasing organic fertilizer sales in Sidoarjo Regency
2. H2: Customer relationship has a positive and significant effect on increasing organic fertilizer sales in Sidoarjo Regency
3. H3: Product differentiation and customer relationship simultaneously have a positive and significant effect on increasing organic fertilizer sales in Sidoarjo Regency

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RESEARCH METHODS

Types of Research

This study adopts a quantitative approach through a survey method. This approach was chosen because the focus is to test hypotheses and analyze the causal relationship between variables by utilizing numerical data and statistical analysis techniques.

Research Location and Time

This study took place in Sidoarjo Regency, East Java, with a period of four months, starting from September to November 2025, with a focus on sub-districts that have significant agricultural activities and a fairly high use of organic fertilizers.

Population and Sample

The population in this study consists of farmers and organic fertilizer distributors in Sidoarjo Regency. Based on data from the Sidoarjo Regency Agriculture Office in 2023, there are around 15,420 farmers who have used or have used organic fertilizers, as well as 45 organic fertilizer distributors who are actively operating in the Sidoarjo Regency area.

Determination of the number of samples using the Slovin formula:

$n = N / (1 + N(e)^2)$

Information:

1. n = number of samples
2. N = total population
3. e = margin of error (10% atau 0,1)

$n = 15.465 / (1 + 15.465(0,1)^2)$ $n = 15.465 / 155,65$ $n = 99,38 \approx 100$ responden

To increase the validity of the research results, the number of samples was enlarged to 120 respondents consisting of:

- 100 farmers who use organic fertilizer
- 20 Organic Fertilizer Distributors/Agents

The sampling technique uses stratified random sampling, where the population is divided into several strata based on sub-district, then from each strata is sampled randomly proportionally. Stratification is carried out based on the 5 sub-districts with the largest agricultural activities in Sidoarjo Regency: Sidoarjo, Gedangan, Taman, Krian, and Porong.

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Data Colletion Techniques

Data Primer

Primary data is collected through:

- Questionnaire: The main instrument is a list of structured statements on a Likert scale of 1-5 (Strongly Disagree to Strongly Agree)
- Interviews: In-depth interviews with several organic fertilizer producers and distributors to gain additional information
- Observation: Direct observation of organic fertilizer marketing practices in the field

Data Second

Secondary data is obtained from:

- Sidoarjo Regency Agriculture Office
- BPS (Central Statistics Agency) Sidoarjo Regency
- Scientific literature (journals, books, articles)
- Sales report from organic fertilizer manufacturers/distributors
- Online data and publications related to organic farming

Test Instruments

Validity Test

A validity test is carried out to assess whether the questionnaire used is accurate or not. This test leverages Pearson Product Moment correlation by comparing the r-calculated value to the r-table. The assessment criteria are:

If r-counts > r-table and the significance < 0.05, then the statement item is declared valid

If r-count < r-table or significance > 0.05, then the statement item is declared invalid

Reliability Test

Reliability tests are carried out to evaluate the consistency of the research tools. This test uses Cronbach's Alpha method with the following criteria:

If Cronbach's Alpha value > 0.60, then the instrument is declared reliable (Ghozali, 2018)

If Cronbach's Alpha value < 0.60, then the instrument is declared unreliable

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Classic Assumption Test

Normality Test

The normality test aims to check whether in the regression model, the disturbance or residual variables are distributed normally. This test uses the Kolmogorov-Smirnov test with certain criteria:

If the significance value > 0.05, then the data is normally distributed

If the significance value < 0.05, then the data is not normally distributed

Multicolinearity Test

The multicollinearity test was performed to ensure that each independent variable in the regression model did not correlate with each other. This audit relies on the Tolerance and VIF (Variance Inflation Factor) parameters as a reference, with the following assessment conditions:

If the Tolerance value is > 0.10 and the VIF is < 10, then multicollinearity does not occur

If the Tolerance value is < 0.10 or VIF is > 10, then multicollinearity occurs

Heteroscedasticity Test

The heteroscedasticity test aims to examine whether in the regression model there is a residual variance inuniformity from one observation to another. This test uses the Glejser test with certain criteria:

If the significance value > 0.05, then heteroscedasticity does not occur

If the significance value < 0.05, then heteroscedasticity occurs

Data Analysis Techniques

Descriptive Analysis

Descriptive analysis was applied to provide a description of the characteristics of the respondents and present a summary of the research variables through statistical measures such as mean, middle value, most frequently occurring value, standard deviation, and frequency distribution.

Multiple Linear Regression Analysis

Multiple linear regression analysis is used to test the impact of independent variables on dependent variables. The regression equation model in this study is:

$Y = a + b1X1 + b2X2 + e$

Information:

Y = Increase in Organic Fertilizer Sales

a = constant

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b1, b2 = Regression coefficient
X1 = Product Differentiation
X2 = Customer Relationship
e = Error term (disruptive variable)

Hypothesis Test

T Test (Partial test)

The t-test is used to test the influence of each independent variable partially on the dependent variable. Test criteria:

If the significance value < 0.05, then H0 is rejected and Ha is accepted (independent variable has a significant effect)

If the significance value > 0.05, then H0 is accepted and Ha is rejected (independent variables have no significant effect)

If t-calculates > t-table, then H0 is rejected and Ha is accepted

F Test (Simultaneous test)

The F test is used to test the influence of all independent variables together (simultaneously) on the dependent variables. Test criteria:

If the significance value < 0.05, then the regression model is worth using

If the significance value > 0.05, then the regression model is not feasible to use

If F-calculates > F-table, then H0 is rejected and Ha is accepted

Coefficient of Determination (R^2)

The determination coefficient is used to measure how much an independent variable is able to explain the variation of the dependent variable. The value of R^2 ranges from 0 to 1. The closer it is to 1, the better the regression model is in explaining the dependent variable.

RESULT AND DISCUSSION

Instrument Test Results

Validity Test Result

Table 1 Validity Test Results

Variable	r-count	r-table	Information
Product Differentiation (X1)	0,782	0,179	Valid
	0,824	0,179	Valid
	0,798	0,179	Valid

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	0,815	0,179	Valid
	0,789	0,179	Valid
	0,802	0,179	Valid
Customer Relationship (X2)	0,836	0,179	Valid
	0,812	0,179	Valid
	0,793	0,179	Valid
	0,825	0,179	Valid
	0,788	0,179	Valid
	0,809	0,179	Valid
	0,796	0,179	Valid
Increased Sales (Y)	0,845	0,179	Valid
	0,867	0,179	Valid
	0,829	0,179	Valid
	0,812	0,179	Valid
	0,798	0,179	Valid
	0,823	0,179	Valid

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The results of the validity test revealed that all statement items had an r-count value greater than the r-table (0.179 for n=120) with a significance level below 0.05, so all items were declared valid and suitable for use as research tools.

Reability Test Results

Table 2 Reliability Test Results

Variabel	Cronbach's Alpha	Information
Product Differentiation (X1)	0,912	Reliabel
Customer Relationship (X2)	0,928	Reliabel
Sales Increase (Y)	0,935	Reliabel

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The results of the reliability test showed that all variables had a Cronbach's Alpha value above 0.60, so that the research instrument was declared reliable and consistent in measuring the research variables. Values exceeding 0.90 indicate a very high level of reliability.

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Clasical Assumption Test Results
Normality Test Results

Table 3 Kolmogorov-Smirnov Test Results

Test	Value	Significance
Kolmogorov-Smirnov Z	1,128	0,156

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The results of the normality test showed a significance value of 0.156 which was greater than 0.05, so that the residual data was distributed normally and met the normality assumptions in the linear regression model.

Multi collinearity Test Results

Table 4 Multicollinearity Test Results

Variabel	Tolerance	VIVID	Information
Product Differentiation (X1)	0,486	2,058	Multicollinearity does not occur
Customer Relationship (X2)	0,486	2,058	Multicollinearity does not occur

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The results of multicollinearity analysis showed that all independent variables had a Tolerance value **of > 0.10** and a VIF value **of < 10.** Thus, it can be affirmed that this regression model is free of the symptoms of multicollinearity, since no high linear relationships between independent variables are found.

Heteroscedasticity Test Results

Table 5 Glejser Test Results

Variabel	Significance	Information
Product Differentiation (X1)	0,284	Heteroscedasticity does not occur
Customer Relationship (X2)	0,312	Heteroscedasticity does not occur

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The results of the heteroscedasticity test showed that all independent variables had a significance value of > 0.05, so it can be ascertained that the regression model is free from heteroscedasticity symptoms.

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Multiple Linear Regression Analysis Results

Table 6 Multiple Linear Regression Analysis Results

Model	Coeficin	Std. Error	t-count	Significance
Konstanta	3,256	0,892	3,651	0,000
Product Differentiation (X1)	0,458	0,095	4,821	0,000
Customer Relationship (X2)	0,412	0,098	4,204	0,000

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

A model of the regression equation formed:

Y = 3.256 + 0.458X1 + 0.412X2

Interpretasi:

1. Constant (a) = 3.256

   The constant of 3.256 indicates that when all free variables are at zero, the increase in organic fertilizer sales has a base value of 3.256 units.

2. Product Differentiation Coefficient (b1) = 0.458

   The value of the product differentiation regression coefficient of 0.458 indicates that every one unit increase in product differentiation will increase organic fertilizer sales by 0.458 units, assuming that the customer relationship variable is fixed or constant. Positive values indicate a one-way relationship, meaning that the better the product differentiation carried out, the higher the increase in organic fertilizer sales.

3. Koefisien Customer Relationship (b2) = 0,412

   The value of the customer relationship regression coefficient of 0.412 indicates that every one unit increase in customer relationship will increase organic fertilizer sales by 0.412 units, assuming that the product differentiation variable is fixed or constant. Positive values indicate a one-way relationship, meaning that the better the relationship with the customer that is built, the higher the increase in organic fertilizer sales.

Hypothesis Test Results

Results of the t test (Partial)

Table 7 Results of the t test

Variabel	t-count	T-Table	Significance	Results
Product Differentiation (X1)	4,821	1,980	0,000	H1 accepted
Customer Relationship (X2)	4,204	1,980	0,000	H2 accepted

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

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Hypothesis 1: The Effect of Product Differentiation on Sales Increase

The value of the product differentiation t-calculation of 4.821 exceeds the t-table of 1.980 with a significance value of 0.000 below 0.05. These results show that H1 is accepted, which means that product differentiation has a positive and significant impact on increasing organic fertilizer sales in Sidoarjo Regency.

Hypothesis 2: The Influence of Customer Relationship on Sales Increase

The customer relationship t-count value of 4.204 exceeds the t-table of 1.980 with a significance value of 0.000 below 0.05. These results show that H2 is accepted, which means that customer relationships have a positive and significant impact on increasing organic fertilizer sales in Sidoarjo Regency.

F Test Results Hasil (Simultaneous)

Table 8 Test Results F

Type	F-count	F-Table	Significance	Results
Regression	148,672	3,07	0,000	H3 accepted

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The F-count value of 148.672 exceeds the F-table of 3.07 with a significance value of 0.000 below 0.05. These results show that H3 is accepted, which means that product differentiation and customer relationship together have a positive and significant impact on increasing organic fertilizer sales in Sidoarjo Regency. The regression model used is appropriate and can be used to estimate an increase in organic fertilizer sales.

Determination Coefficient Results

Table 9 Determination Coefficient Results

R	R Square	Adjusted R Square	Std. Error of the Estimate
0,846	0,716	0,711	1,678

Source: SPSS 2025 Data Processing Output Results (processed by researchers)

The R Square value of 0.716 indicates that 71.6% of the change in the increase in organic fertilizer sales can be explained by the variables of product differentiation and customer relationship. Meanwhile, the remaining 28.4% was influenced by other factors that were not included in this study, such as pricing strategies, promotional activities, service quality, distribution coverage, farmers' level of environmental concern, and

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government regulations. The Adjusted R Square value of 0.711 shows that after adjusting for the number of independent variables and sample size, the model remains to show solid predictive ability. These figures confirm that this research model has an adequate and reliable level of suitability in explaining the phenomenon being studied.

DISCUSSION

The effect of Product Differentiation on the Inrease in Organic Fertilizer Sales

The findings of this study indicate that product differentiation has a positive and significant effect on increasing organic fertilizer sales in Sidoarjo Regency. This can be seen from the value of the regression coefficient of 0.458 with a significance level of 0.000 which is below the limit of 0.05. In other words, the company's efforts in creating clear differentiators in its products have proven to be able to drive sales increases. These results are consistent with the view (Kotler & Armstrong, 2018) which states that "Product differentiation is an attempt to design various unique features that are of value in order to show the special characteristics that make a company's product different from the solutions provided by competitors."

These results are consistent with (Tjiptono & Diana, 2020) which found that product differentiation had a significant effect on sales volume of 58.3%, as well as (Santoso & Rahayu, 2019) which reports an average increase in sales of 23% per year at manufacturers that innovate sustainably. Interviews with respondents showed that farmers most valued plant-specific formulas, practical packaging, organic certification, and free consulting services.

(Porter, 2015) confirms that differentiation creates brand loyalty and lowers price sensitivity. This can be seen from the loyalty of farmers who use differentiated organic fertilizers as long as the quality is maintained. Practically, organic fertilizer producers in Sidoarjo need to continue to innovate through formula development, packaging improvement, and improvement of assistance services to maintain and expand market share.

The Influence of Customer Relationship On Increasing Sales of Organic Fertilizers

The findings of the study show that customer relationship has a positive and significant impact on increasing organic fertilizer sales in Sidoarjo Regency, with a regression coefficient of 0.412 and a significance of 0.000 below 0.05. This shows that a strong and well-managed relationship between producers and farmers contributes significantly to increased sales. By (Buttle & Maklan, 2019) which confirms that CRM serves as a key business strategy that focuses on creating and delivering value for customers so that companies can make a profit.

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The results of the research are the same as (Peppers & Rogers, 2017) where the implementation of an effective CRM can increase customer retention by up to 27% and sales by up to 32%, and support the findings (Wahyudi & Susanto, 2018) which recorded a 28% increase in sales to organic fertilizer producers who actively communicate with farmers. Field observations show that the CRM strategy implemented includes regular field visits, training and plot demonstrations, intensive communication via WhatsApp, prompt complaint handling, loyalty programs, and technical assistance for fertilizer applications.

(Zeithaml et al., 2018) emphasizing that retaining existing customers is 5-7 times more cost-effective than finding new customers, so that investment in customer relationships provides long-term benefits. Interviews with distributors also reveal that farmers who have a good relationship with producers have the potential to make further purchases and provide positive references to other farmers, so word-of-mouth becomes an effective sales driver.

The practical implications of these findings are the need for organic fertilizer producers and distributors to allocate resources to strengthen customer relationships, such as increasing field personnel, developing communication applications, and expanding community development programs involving farmers.

The Effect of Product Differentiation and Customer Relationship Simultanesously on Sales Increase

The results of the F test show that product differentiation and customer relationship simultaneously have a positive and significant effect on increasing organic fertilizer sales in Sidoarjo Regency. This is indicated by an F-count value of 148.672 with a significance level of 0.000 which is below the limit of 0.05. In addition, an R^2 value of 0.716 indicates that the two variables are able to explain 71.6% of the variation in sales increase, so the model used has very strong predictive capabilities. The remaining 28.4% is influenced by other factors such as pricing, promotional activities, distribution systems, environmental awareness levels, subsidy policies, and the economic conditions of farmers.

Of the two variables, product differentiation had a slightly greater influence (0.458) than customer relationship (0.412), although a small difference (0.046) showed that the two were equally important and complementary. Coordinated by (Kotler & Keller, 2016) which emphasizes that successful differentiation must meet a number of criteria, namely providing meaningful value, having clear uniqueness, offering advantages over competitors, easy to convey to the market, difficult for competitors to imitate, reachable by consumers, and able to provide real benefits to the company.

Instead (Peppers & Rogers, 2017) emphasizing that customer trust is built not only through personal interactions, but also through consistency of product quality. Thus,

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product quality and the strength of customer relationships must go hand in hand. These findings provide an idea that an effective organic fertilizer marketing strategy requires a holistic approach that integrates product excellence with the quality of customer relationships. Focusing on one aspect without paying attention to the other will not result in an optimal increase in sales.

CONCLUSIONS AND SUGGESTIONS

The findings of the study reveal that the implementation of product differentiation combined with consumer relationship management can produce a large, positive, and meaningful impact in accelerating the increase in organic fertilizer sales volume in the Sidoarjo Regency area. Product differentiation made the most dominant contribution (0.458) through unique recipes, diverse packaging choices, organic certification, and consulting services, while customer relationship (0.412) played a crucial role through in-depth interactions, site visits, problem-solving, and loyalty initiatives. Together, these two factors were able to explain 71.6% of the fluctuations in sales increases, indicating that an optimal organic fertilizer marketing approach requires an integration of product specialties and solid customer linkages.

Based on these findings, producers are advised to continue to develop product innovations through formula research, packaging quality improvement, official certification, and the addition of agronomic services as added value. On the other hand, strengthening customer relationships needs to be done through field visits, farmer communities, quick responses to complaints, and loyalty programs. Distributors are expected to improve product technical knowledge, expand distribution networks, and maintain stock availability. Local governments are advised to provide support in the form of training, incentives for the use of organic fertilizers, certification facilitation, and the development of organic farming demonstration centers. Farmers are expected to be more proactive in participating in education, gradually trying products, and communicating with producers for the right application.

For academics, future research may include additional variables such as price, promotion, brand image, or subsidies; expanding the research site; using mixed-method or longitudinal methods; as well as examining the economic and environmental aspects of the use of organic fertilizers. This approach will enrich understanding of the factors that influence the success of organic fertilizer marketing and help improve the effectiveness of future industry strategies.

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