

Satisfaction Factors and Farmers' Loyalty to the Virtako 300 SC Pesticide Brand

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Abstract

Insecticide Virtako 300 SC is an insect toxin produced by PT Syngenta Indonesia. Companies that produce pesticides under various trademarks have stiff competition, therefore pesticide companies must be able to maintain loyalty from the pesticide brand by providing satisfaction for their consumers, so that consumers are satisfied with the results of the pesticides they buy so that consumers buy and use these pesticide products. This study aims to 1) determine the characteristics of consumers Virtako 300 SC, 2) determine the level of satisfaction and level of consumer loyalty Virtako 300 SC. The analytical tools used are descriptive analysis, Importance Performance Analysis (IPA), Customer Satisfaction Index (CSI), and Loyalty Pyramid. Based on the analysis using the IPA method, the attributes that have good performance and are considered important by consumers of the Virtako 300 SC brand of pesticide products are the price attributes according to quality, well-known brands, attractive packaging, easily soluble in water, Virtako Pesticides have the ability to complete kills, and easy to find at the farm shop in Quadrant II. Attributes that need to be improved where these attributes are included in Quadrant I, namely the extension attributes of the company. However, overall, based on the results of the CSI calculation, the score is 73.7. The results of the Loyalty Pyramid are quite good, as seen at the higher level, the wider it reaches the Satisfied Buyer level. It means that the farmers who consume the Virtako 300 SC pesticide are loyal enough.

Keywords

Satisfaction; loyalty; farmers; pesticides



I. Introduction

The pesticide industry is a strategic industry in Indonesia. In the context of increasing agricultural production and food self-sufficiency, the factor of using plant protection chemicals or pesticides in controlling plant pest organisms (OPT) is one of the important supporting factors. Pesticides are chemicals used to control the development and growth of pests, diseases and weeds, without the use of pesticides there will be a decrease in agricultural yields. According to Abdurahim (2016) pesticide products exist because farmers must increase production capacity as much as possible by expanding production areas and suppressing pest populations as much as possible. Untung (1993) explained that the use of pesticides was proven to increase farmers' production, so that almost all farmers used chemical pesticides on their farms. This has become a necessity and dependence for farmers to be able to suppress the decline in production due to pests and diseases.

Therefore, farmers generally control pests/diseases by spraying pesticides. The development of technology and the high use of pesticides attract new players to enter this business. This is reflected in the increasing number of pesticide products circulating in the market. Development is a systematic and continuous effort made to realize something that is aspired. Development is a change towards improvement. Changes towards improvement

require the mobilization of all human resources and reason to realize what is aspired. In addition, development is also very dependent on the availability of natural resource wealth. The availability of natural resources is one of the keys to economic growth in an area. (Shah, M. et al. 2020)

The development of technology and the high use of pesticides attract new players to enter this business. This is reflected in the increasing number of pesticide products circulating in the market. As reported by the Ministry of Agriculture (2005) in Legina (2006), since the establishment of the Pesticide Commission in 1970, the number of registered pesticide products has increased. If in that year the number of pesticides registered was 40 products, then in three decades the number would be 900 products, or an increase of more than 2000 percent. This condition makes the competition among pesticide business actors increasingly tight. The number of pesticides registered for agriculture reached 2,793 formulations. Based on data from the Pesticide Commission under the Ministry of Agriculture, 350 brands of fungicides have been registered, 600 brands of herbicides and 800 brands of insecticides have been registered, with permanent permits. This number does not include illegal products.

One of the pesticide products on the market is a product from PT Syngenta. The pesticides produced by PT Syngenta include fungicides, herbicides and insecticides. As a global agribusiness company, currently PT Syngenta is listed as one of the leading companies in the field of plant protection and seedling. PT Syngenta has a complete range of products for the protection of food crops, vegetables and plantation crops. Insecticide Virtako 300 SC is a type of insect poison or insecticide produced by PT Syngenta Indonesia.

Companies that produce pesticides under various trademarks have stiff competition. Companies must be able to highlight the advantages of the various variables offered in fighting the competition. Competition occurs in a market environment that can quickly change both the type of product and the price of a product or technology. Therefore, pesticide companies must be able to maintain loyalty from the pesticide brand by providing satisfaction for their consumers, so that the farmers are satisfied with the results of the pesticides they buy so that consumers buy and use the pesticide product. According to Tjiptono (2008), the main key in winning the competition is to provide value & satisfaction to customers for the products or services offered. Therefore, companies must know the satisfaction factors that affect consumer loyalty in order to be able to market pesticide products properly

This study aims to 1) determine the consumer characteristics of the pesticide product of the Virtako 300 SC brand, 2) determine the level of satisfaction and the level of consumer loyalty to the attributes of the pesticide product of the Virtako 300 SC brand.

II. Review of Literature

2.1 Pesticide

According to Government regulation no. 7 of 1973 the definition of pesticide is all chemical substances or other materials as well as micro-organisms and viruses that are used to:

- Eradicate or prevent destructive pests and diseases _ plant or results agriculture .
- Eradicate grass .
- turn off leaves and prevent growth plant or parts plant , no including fertilizer .
- Eradicate or prevent pests outside on animals pets and livestock .
- Eradicating and preventing water pests .

- Give or prevent animals and bodies tiny in House stairs , buildings and tools transportation , eradicating or prevent the animals that can cause disease in humans or necessary animal protected with use in plants , soil and water.

Pesticides used in agriculture are specifically called crop protection products to distinguish them from products used in other fields. prevent animals that can cause disease in humans or animals that need to be protected by use on plants, soil and water.

2.2 Products and Product Attributes

According to Kotler (2005), consumers view each product as a collection of attributes with different abilities to provide benefits that can be used to satisfy consumer needs. While Engel *et. al.* (1994) said that the object attributes of consumer behavior are the factors that consumers consider in making purchasing decisions for a brand/product category itself. Consumers will pay the greatest attention to the attributes that provide the benefits they seek. Product attributes can be a separate assessment for consumers of a product. Consumers will evaluate the product by evaluating the product attributes. Consumers will describe the importance of an attribute for him.

2.3 Consumer behavior

Consumer behavior is “the study of how individuals, groups, and organizations select, buy, use and use goods, services, ideas or experiences to satisfy their needs and wants” (Kotler and Keller 2009). According to Schiffman and Kanuk (2007) consumer behavior can be defined as the behavior that consumers display in searching for, purchasing, using, evaluating, and disposing of products and services that they expect will satisfy their needs. Kotler and Keller (2009) add that before and after making a purchase, a consumer will carry out a number of processes that underlie decision making, namely: problem recognition (problem *recognition*), information search (information *search*), evaluating alternatives (alternative *evaluation*), purchasing decisions (purchase *decision*) and post-purchase evaluation (post-*purchase evaluation*).

2.4 Satisfaction Consumer

Consumer satisfaction is an important concept in marketing and consumer research. Engel *et. al.* (1994) explains that consumer behavior is an action that is directly involved in obtaining, consuming, and disposing of a product or service, including the decision processes that precede and follow these actions. Feelings of satisfaction and dissatisfaction with a product or service arise after consumers buy and consume the product or service. Consumer satisfaction is found in the post-purchase evaluation stage of a consumer purchasing decision. It is a common opinion that if consumers are satisfied with a product, they tend to continue to buy and use it and will tell others about the pleasant things with the product, but if consumers are not satisfied with the product, they tend to switch. other products and raise objections to manufacturers, retailers and even other consumers (Peter and Olson 2000).

According to Kotler (2005), consumer satisfaction is a feeling of pleasure or disappointment that arises after comparing the interests (expectations of a product) with the performance obtained (perceived *performance*). If the performance of the product or service is lower than the interest, the consumer will feel dissatisfied. If the performance is in accordance with the interests, the consumer will feel satisfied. If performance exceeds interests, consumers will feel very satisfied (delighted).

According to Irawan (2004), there are five main driving factors for customer satisfaction, namely: product quality, price, *service quality*, *emotional factor*, and the ease of getting the product or service.

2.5 Product quality

Product quality is related to product quality. Quality is the totality of characteristics and characteristics of a product or service that affect its ability to satisfy stated or implied needs. Dimensions of product quality can be in the form of a function of the product, product appearance, brand image, safe time span for consumption, and other things related to the product.

2.6 Price

For sensitive customers, low prices are an important source of satisfaction, because they get high value for money. In contrast, the price component is relatively unimportant for those who are not price sensitive.

2.7 Service Quality

This factor depends on three things, namely the system, technology, and people. This factor has five dimensions, namely tangible, reliability, responsiveness, assurance, and empathy. The tangible aspect is very important as a service measure because this aspect is invisible and cannot be touched. Reliability measures the company's reliability in providing services to customers. The dimension of responsiveness must be considered because customer expectations for the speed of service can almost certainly change from time to time. The assurance dimension relates to the company's ability and behavior of front-line staff to instill trust and confidence in its customers. The last dimension is empathy. This dimension is considered the most important for customers from the upper middle-class economy.

2.8 Emotional Faktor

This factor can be divided into three aspects, namely aesthetics, self-expensive value, and brand personality. Aesthetics include the size, shape of the angle, proportion and symmetry. Self-expensive value is satisfaction that arises because of the surrounding social environment, such as satisfaction that arises from the judgment of others. The third aspect is brand personality, which will give satisfaction to consumers internally depending on the views of those around them. For product categories related to lifestyle, overall, this factor is quite important in determining customer satisfaction.

2.9 Ease of Getting Products

This factor relates to the costs incurred to obtain a product or service. Customers will be more satisfied if it is relatively easy, convenient, and efficient to get a product or service

2.10 Loyalty Consumer

Companies that produce pesticides under different brand names face stiff competition. Companies must be able to highlight the benefits of the various variables offered against the competition. Competition occurs in a market environment where the nature of the product and the price of the product or technology can change rapidly.

Sumarwan (2015) explains that pesticide companies must be able to maintain loyalty from pesticide brands by providing satisfaction to farmers as consumers, so that farmers are satisfied with the results of the pesticides they buy so that consumers buy and use the

pesticide product again because a consumer is more satisfied with a brand. the consumers will be more loyal to the brand. Consumers who are satisfied with the product or brand consumed will repurchase the product. Manufacturers expect consumers to make purchases continuously and repeatedly for a product and the same brand will show consumer loyalty to the brand (Dwiastuti, *et. al.* 2012).

According to Sudarti and Iva (2013) regarding the phenomenon of increasingly fierce competition, consumers have more and more choices for purchasing decisions, so that when a company's products no longer meet their needs, they can easily switch to other products. Therefore, customer satisfaction plays a role in maintaining consumer loyalty.

Aaker (1997) suggests that brand loyalty has several levels, namely as follows:

1. *Switcher buyers* (buyers who change brands). The most basic level of loyalty is that buyers are disloyal or completely uninterested in the brand.
2. *Habitual buyers* (buyers choose a brand based on habits). *Habitual buyers* are buyers who buy something product due to habit.
3. *Satisfied buyers*, buyers who are satisfied with the switching costs. *Satisfied buyers* are buyers who feel satisfied when using the product certain
4. *Liking the brand*, buyers choose a brand because they like the brand. These consumers are buyers who really like the product certain
5. *Committed buyers*, where buyers have a high level of loyalty because they do not move around in buying a brand of a product. This group is a loyal consumer. Consumers have a pride as users of a brand even the brand becomes very important.

III. Research Method

This research was conducted in an agricultural area in the District of Bojong Picung, Cianjur Regency year 2020. Respondents are selected by using *convenient sampling* method with the number of respondents as many as 150 people.

3.1 Validity Test

The indicator is declared valid if the correlation coefficient (r -count) $>$ r -table or p -value < 0.05 . The r -table for $n=30$ ($df=28$) is 0.361. The results of the validity test show that all indicators are valid.

3.2 Reliability Test

The reliability test that will be used in this study is using the SPSS facility, namely the *Cronbach Alpha statistical test*. The following table shows the results of reliability testing

Ghozali (2011) states that a construct or variable is declared reliable if the *Cronbach alpha value* is $>$ 0.60. The results show that the Satisfaction variable and Loyalty variable are reliable.

Importance and Performance Analysis (IPA) and *Customer Satisfaction Index* (CSI) for analyze satisfaction.

The data analysis technique used on consumer loyalty is using the *Top two boxes method*, which combines the answers of consumers who answer the questions "agree" and "strongly agree" divided by the total number of respondents. For a scale of 1-5, the loyalty index is obtained from the percentage of the number of respondents who answered on a scale of 4 and 5.

The formula for the *two top boxes* in this study is as follows:

$$Klik = \frac{n + x}{i} \times 100\%$$

Information:

Click : level of consumer loyalty,

n : the number of those who answered agree (scale 4),

x : The number who answered strongly agree (scale 5)

i : number of respondents.

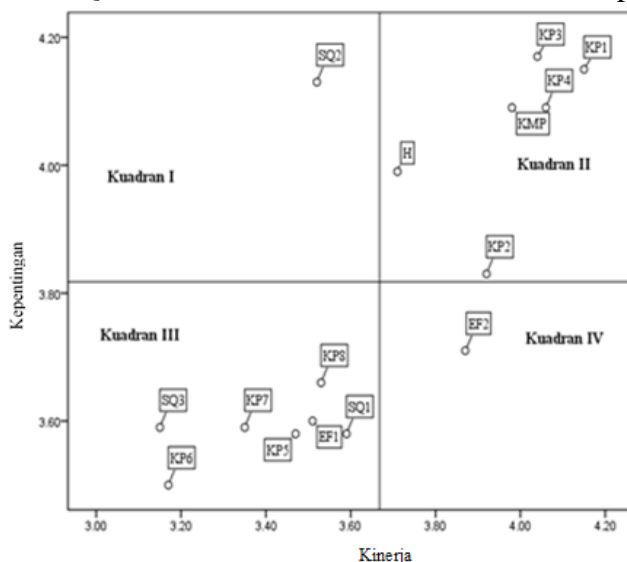
IV. Result and Discussion

4.1 e-Government Innovation

The results of the study describe consumer assessments of how important and influential an attribute is in the process of selecting a pesticide product of the Virtako 300 SC brand.

Information:

Quadrant I SQ2 Often conducts outreach from the company



Quadrant II KP1 Pesticide Virtako 300 SC. Is a famous brand

KP2 Virtako pesticide has an attractive packaging

Figure 1. The results of the analysis of the Importance-Performance method Analysis

KP3 Virtako pesticide easily dissolves in water when mixed

KP4 Virtako pesticide has the ability to kill completely

KMP virtako products are easy to get at farm shops

H The price is in accordance with the quality of the virtako pesticide

Quadrant III KP5Virtako Products have a variety of sizes

KP6 Expiration date information is on the packaging label

KP7 Information on the content of the active ingredients is on the packaging label

KP8 Instructions for use can be found on the packaging label

SQ1 Information services for consumers are easy to obtain

SQ3 often hold Advertising and promotion

EF1 I feel proud when using virtako products

Quadrant IV EF2Virtaco pesticides are widely used by people

The level of importance in Figure 1 shows how strongly consumers want an attribute to have the desired characteristics. While the level of performance is the consumer's assessment of product attributes. The attributes used are as follows: well-known brands, attractive packaging, easily soluble in water, the ability to kill completely, size variations, date information, expiration information, active ingredient content, information on instructions for use, price according to quality, service information, counseling from companies, advertisements and promotions, easy to get, a sense of pride and widely used by people.

Quadrant I (Main Priority) Quadrant I is an indicator that is considered important but the performance is not satisfactory, so it needs to be improved. In Quadrant I, the company is considered to need to make a number of improvements based on the variables included in Quadrant I. These variables are considered to have a high level of importance by consumers, but the performance of these variables is still considered underperforming (the performance value is below the average total level of importance). Attribute the is Counseling from the company

Quadrant II (Maintain Achievement) Quadrant II is an indicator that is considered important and performance is satisfactory, so it needs to be maintained. Attributes in this quadrant are attributes that are considered important by customers and these attributes are considered to have a high level of satisfaction for customers (the average value of importance and performance is above the average value of total importance and performance). The company must maintain the performance of these variables so that efforts to satisfy consumers can be achieved. There are 6 variables included in this quadrant, namely the price according to the quality of the pesticide Virtako 300 SC, Pesticide Virtako 300 SC is a well-known brand, Pesticide Virtako has an attractive packaging, Pesticide Virtako easily dissolves in water when mixed, Pesticide Virtako has the ability to kill After all, Virtako products are easily available in farm shops

Quadrant III (Low Priority) Quadrant III is an attribute that is considered less important and the company carries it out normally. The attributes that are in this Quadrant have an average value of importance which is smaller than the total average value and also has an average performance value that is smaller than the total average value. The attributes of the Virtako 300 SC brand pesticides that are in this Quadrant include Virtako products that vary in size, Expiration date information is on the packaging label, Information on active ingredients is found on the packaging label, Information on usage instructions is on the packaging label, Information services for consumers easy to get, Often holds advertisements and promotions, I feel proud when using Virtako products.

Quadrant IV (Excessive) Quadrant IV is a variable that is considered less important and the company's performance is good. Attributes in this area are attributes whose average value of importance is below the average value of the total importance of the attribute, but its performance is relatively satisfactory to consumers. Based on the average performance value, these attributes are included in the good performance class. Attributes in this quadrant are Virtako Pesticides which are widely used by people.

4.2 Customer Satisfaction Index (CSI)

The Consumer Satisfaction Index is measured based on the average level of importance and performance level of each product attribute.

The CSI number will be obtained by dividing the WT value by the maximum scale used in this study, then multiplied by 100%. Based on the above calculation, the CSI figure is 73.7 percent. The overall CSI value of 73.7 percent is in the range of 0.6-0.8. This means the Pesticide Consumer Satisfaction Index brand Virtako 300 SC which is

calculated based on product attributes is in the satisfied criteria. A value of 73,7 percent means that PT Syngenta Indonesia has met consumer expectations for products based on its attributes of 73,7 percent. The remaining 26,3 percent of consumer expectations have not been able to be satisfied by PT Syngenta Indonesia. Companies need to track consumer satisfaction with the attributes of pesticide products brand Virtako 300 SC. Improved performance must be continuously improved by the company so that consumers feel very satisfied with the overall performance of the product.

4.3 Loyalty Level Analysis

Brand loyalty is a central idea in marketing, is a measure of a person's attachment to a brand (Aaker 1997). Brand loyalty reflects how customers might switch to another brand. When brand loyalty is high, the vulnerability of customer groups from competitive attacks can be reduced. This is an indicator of brand equity that is clearly related to future earnings, because brand loyalty is directly interpreted as future sales.

In this study, consumer loyalty to product brands is based on loyalty criteria consisting of *switcher/price buyer criteria*, *habitual buyers*, *satisfied buyers*, *liking the brand*, and *committed buyers*. The results of the analysis using the *top-two boxes method* show the distribution of the level of consumer loyalty to the pesticide product Virtako 300 SC. Distribution respondents for each type of loyalty level can be seen in Figure following:

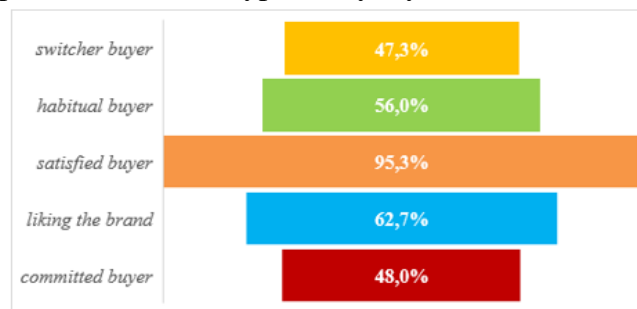


Figure 2. Distribution of respondent's types of loyalty based on the response to the reasons for buying the product Virtako 300 SC

A good loyalty pyramid is in the shape of an inverted triangle, that is, the higher you go, the wider it gets. Pyramid of loyalty Virtako Pesticide 300 SC. shows quite good loyalty, it can be seen that the higher the level, the wider it reaches the Satisfied Buyer level. But at higher levels, the shape of the pyramid narrows. This shows that consumers are quite loyal to the Pesticide Virtako 300 SC., but only a few have reached the stage of promoting. The switcher buyer value has the smallest value, which is 47.3%. This is presumably because consumers think that basically all branded pesticides are the same, and the choice of pesticide brand is also heavily influenced by price.

V. Conclusion

Based on the analysis using the Importance-Performance Analysis method, the attributes that have good performance and are considered important by consumers of the Virtako 300 SC brand of pesticide products are price attributes according to quality, well-known brands, attractive packaging, easily soluble in water, pesticides. Virtako has the ability to kill thoroughly, and is easily obtainable at the farm shop located in Quadrant II. Attributes that need to be improved where these attributes are included in Quadrant I, namely the extension attributes of the company. However, overall, based on the results of

the Customers. calculation Satisfaction Index, consumers are satisfied with the overall attributes of the pesticide brand Virtako 300 SC (CSI=73,7).

The results of the Loyalty Pyramid show quite well, it can be seen that the higher the level, the wider it reaches the Satisfied Buyer level. This means that farmers who consume pesticides Virtako 300 SC are quite loyal.

References

- Aaker, AD (1997). Management equity brand. Jakarta. Main Partner.
- Abdurrahim, Andi. (2016). Integrated Pest Management, Concept Integrated Protection Plants. Jakarta. Directorate Protection Horticulture.
- Dwiasuti, Rini., Agustina Shinta and Riyanti Isaskar. (2012). Knowledge Behavior Consumers. Poor. Universitas Brawijaya Press (UB Press)
- Engel et al. (1994). Behavior Consumers. Volumes 1 and 2. Indonesian Edition. Jakarta. Bodybuilder characters.
- Ghozali, Imam. (2011). Application Multivariate Analysis with IBM SPSS19 Program, Semarang. Diponegoro University Publishing Agency.
- Irawan, Handi. (2007). 10 Characters Indonesian consumers. Marketing Magazine Edition Special /II/2007.
- Ken Sudarti and Iva Atika. (2013). Creating Satisfaction and Loyalty Customer Through Image and Service Recovery (Study Case in Lombok Ijo Restaurant Semarang). Semarang. Journal of Economic Focus Vol. 8 No. 2 December 2013: 81 – 102.
- Kotler, Philip and Kevin Lane Keller. (2009). Management Marketing, Edition 13th. Translation by Benjamin Molan. Jakarta. PT Index.
- Kotler, Philip. (2005). Management Marketing. Volumes 1 and 2. Indonesian Edition. Jakarta. PT INDEKS Gramedia Group.
- Regulation Government Republic of Indonesia. (1973). Regulation government republic Indonesia number 7 of 1973 concerning supervision on circulation, storage and use pesticides. Jakarta: Regulation Government Republic of Indonesia.
- Peter, J. Paul and Jerry C. Olson. (2000). Consumer Behavior Behavior Consumer and Marketing strategy. Issue 4 Volume 1. Jakarta. Erlangga.
- Ramadhanti, Legina. (2006). Competitive strategy herbicide paraquat (PT Syngenta). [thesis], Institute Bogor Agriculture.
- Schiffman, Leon.G and Leslie Lazar Kanuk. (2007). Behavior Consumers. Edition 7. Translation by Drs. Zulkifli Kasip. Jakarta. PT Index.
- Shah, M. et al. (2020). The Development Impact of PT. Medco E & P Malaka on Economic Aspects in East Aceh Regency. Budapest International Research and Critics Institute-Journal (BIRCI-Journal). P. 276-286.
- Sumarwan, Ujang. (2015). Behavior consumer. Theory and its application. Second printing. _ Bogor. Indonesian Ghalia.
- Tjiptono, Fandy. (2008). Marketing Strategy. Edition III. Yogyakarta. CV. Andi Offet.
- Lucky K. (1993). Application Pesticides. Bandung Alfabet.