

# Consumer Satisfaction Levels Towards Hydroponic And Conventional Lettuce Vegetables in the Seberida Sub-District of Indragiri Hulu

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**Abstract.** Lettuce is commonly consumed raw as a salad, besides, it also contains high nutritional value and is highly favored by the community. Basically, the purpose of marketing is to create customer satisfaction. It is necessary to understand well what factors influence consumer satisfaction so that product improvement can continue. The research objectives are 1) Analysis of characteristics of consumers, farmers, business profiles and product descriptions of hydroponic and conventional lettuce systems. 2) Analysis of the level of consumer satisfaction with the products and sales services of hydroponic lettuce and conventional lettuce. 3) Marketing strategies for hydroponic lettuce and conventional lettuce. A survey method was used in this research with the accidental sampling technique involving 120 respondents, consisting of 60 hydroponic lettuce consumers and 60 conventional lettuce consumers. Data analysis was conducted to determine the level of consumer satisfaction using IPA (Importance-Performance Analysis) and CSI (Customer Satisfaction Index). The research results indicate that the age range of hydroponic lettuce consumers is between 32,03 years, while conventional lettuce consumers are between 36,72 years. Both hydroponic and conventional lettuce consumers are predominantly female 91,67% and 81,67%. The average number of dependents for both types of consumers is 4 people. Based on the IPA analysis, the attributes that need improvement for hydroponic consumers are discounts, the number of promotional media, promotional intensity, and promotional quality, while for conventional consumers, the attributes that need improvement are lettuce freshness, lettuce cleanliness, the number of promotional media, promotional intensity, and promotional quality. Meanwhile, the strategy to enhance satisfaction among conventional lettuce consumers involves improving product freshness and cleanliness levels, as well as increasing product sales promotions. The CSI index value for hydroponic lettuce is 75,78% (Satisfied), on conventional lettuce namely 59,45% (Not satisfied) Entrepreneurs in both hydroponic and conventional lettuce businesses should continuously innovate and develop themselves.

## 1. Introduction

Lettuce (*Lactuca sativa* L) is a type of vegetable plant that is used and utilized by the community as a salad. Lettuce has great potential as a provider of important mineral elements needed by the body because of its high nutritional value. Lettuce contains vitamin C and folic acid which are efficacious in helping important reactions of amino acid metabolism and also helps the formation of red blood cells and white blood cells in the bone marrow, prevents cancer, increases endurance, and overcomes insomnia.

The purpose of marketing is to create a sense of satisfaction in customers. Consumer satisfaction is a feeling of liking or disliking a person (consumer) towards a product or service after comparing the performance of the product with their expectations (Kotler, 2007). It is necessary to know well what factors influence consumer satisfaction so that they can continue to improve the products produced. One alternative method that can be used by lettuce farmers is to use a marketing mix or marketing strategy that includes products, prices, places, people, promotions, processes and physical facilities in the marketing strategy.

In order to develop hydroponic and conventional lettuce products, it is necessary to know well what factors influence consumer satisfaction so that they can continue to improve the products produced. In addition, consumer responses to lettuce vegetables need attention, especially in the strategy that will be used in marketing to make it more effective and efficient

## **2. Research Methods**

This study uses a survey method, the location of the study was carried out in Seberida District, Indragiri Hulu Regency. The determination of the research area was based on the consideration that Seberida District is a center for hydroponic and conventional lettuce businesses. The sampling method in this study was carried out by accidental sampling, determining the sample based on coincidence, anyone who accidentally met the researcher was used as a sample, namely consumers who bought lettuce from Alpanun Hydroponic farmers, conventional farmers. The number of samples in this study was 60 hydroponic farmer consumers and 60 conventional farmer consumers.

## **3. Results and Discussion**

Results and discussion be written in the same part. They should be presented continuously start from main result until supporting results and equipped with a discussion. Figures and Tables (if any) should be put in the same part of this section and should be actively edited by the editors.

### *3.1. Characteristics of Farmers and Farming*

#### **a. Business Profiles.**

The average age of hydroponic lettuce consumers is younger, 32.03 years, than conventional lettuce consumers, 36.72 years. Hydroponic and conventional lettuce consumers are mostly women and have a family of 4 people and a high school education level.

#### **b. Farming Business Profile**

The variety used by hydroponic lettuce farmers is the caipira variety while conventional lettuce farmers are the red arrow variety. The form of business carried out by hydroponic lettuce farmers and conventional lettuce farmers is an individual business (small), with the source of capital for hydroponic lettuce and conventional lettuce farming is their own capital and hydroponic lettuce and conventional lettuce farming in Seberida District is more dominant in using family labor (TKDK) of 85.39%

### *3.2. Analysis of Consumer Satisfaction Levels*

#### **Sub-heading of the discussion 1**

Following main headings should be provided in the manuscript while preparing. The separation between main headings, sub-headings and sub-sub headings should be numbered in the manuscript with following example:

#### **Sub-heading of the discussion 2**

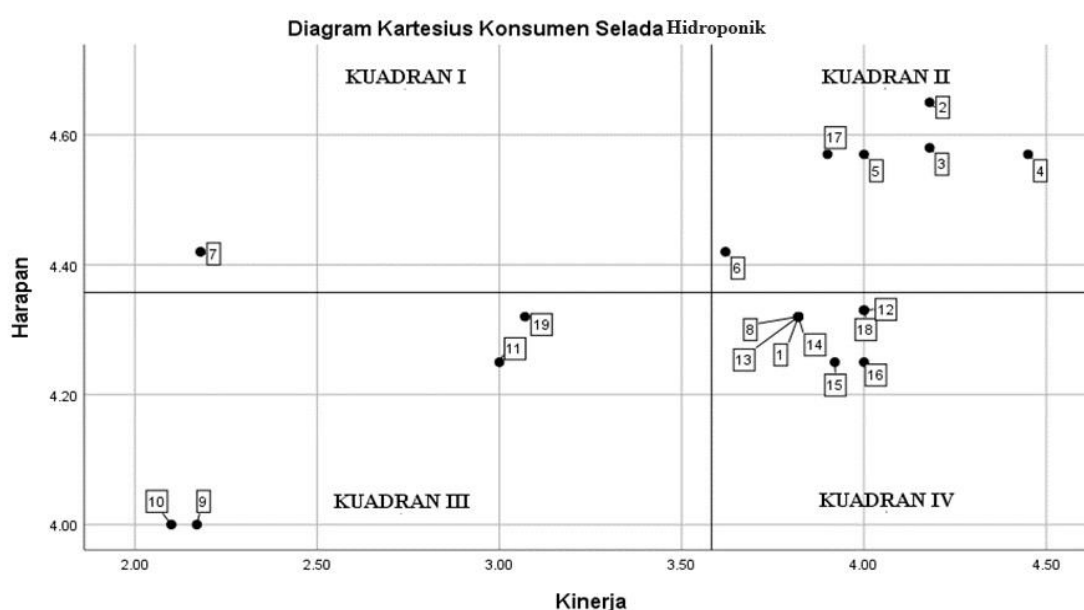
Tables and Figures are presented center and cited in the manuscript. The figures should be clearly readable and at least have a resolution of 300 DPI (Dots Per Inch) for good printing quality. Table made with the open model

(without the vertical lines) as shown below:

Customer Satisfaction Index (CSI) of Hydroponic and Conventional Lettuce Consumers. The Customer Satisfaction Index (CSI) is a quantitative analysis of consumer satisfaction with products and services.

### CSI of Hydroponic Lettuce Consumers

In the product attribute variables, promotion, people, place, process, and promotion are already in the satisfied category. Consumer satisfaction with the discount price variable needs to be a top priority, traders can pay attention and continue to review the price of hydroponic lettuce vegetables that are considered expensive by consumers, there needs to be a discount or price cut. Price discounts will later encourage existing consumers to remain loyal and become an attraction for new consumers to try hydroponic lettuce. In general, hydroponic lettuce consumers stated that they were satisfied with a percentage (75.78%) based on 19 existing Attributes/Variables. Cartesian Diagram of Hydroponic and Conventional Lettuce Consumers (*Figure 1*)



**Figure 1.** Cartesian Diagram of Hydroponic Lettuce

### 3.3. CSI of Conventional Lettuce Consumers

In the promotion attribute variables, people, place, and process are already in the satisfied category. Consumer satisfaction with the product variables (freshness and cleanliness) and promotion needs to be a top priority, traders need to improve the freshness and cleanliness of the lettuce vegetables they sell in addition to increasing promotions in the form of advertising, personal selling, sales promotions and publicity. In general, consumers of hydroponic lettuce stated that they were less than satisfied with the percentage (59.45%) based on the 19 existing attributes/variables.

### 3.4. Hydroponic and Conventional Lettuce Marketing Strategy

#### 1. Hydroponic Lettuce Marketing Strategy

- a. According to the characteristics of hydroponic lettuce consumers: consumers aged 32.03 years, female, and high school educated can be done with the right market segmentation with relevant messages about the health benefits and practicality of hydroponic lettuce. Promotion on social media such as Instagram, Facebook, and TikTok through attractive visual content and influencer marketing will be very effective. An easy-to-understand educational campaign about the advantages of hydroponic lettuce is also important, accompanied by special promotions such as first-purchase discounts and loyalty programs. Collaboration with health stores and supermarkets, as well as events and live demonstrations at locations

frequently visited by the target market, can increase product visibility. Attractive and informative packaging, as well as the development of digital content such as blogs and e-books about healthy lifestyles, will help strengthen marketing messages and attract consumer interest.

- b. According to the results of the IPA, hydroponic lettuce traders should provide discounts or price cuts. Price discounts will later encourage existing consumers to remain loyal and become an attraction for new consumers to try hydroponic lettuce.
  - c. According to the CSI results, hydroponic lettuce traders pay attention to and continue to review the price of hydroponic lettuce which is considered expensive by consumers, there needs to be a discount or price reduction
2. Hydroponic Lettuce Marketing Strategy
- a. The marketing strategy for conventional lettuce targeted at consumers with an average age of 37 years, female, and high school education can be formulated as follows. Market segmentation must be precise with an emphasis on traditional values and affordable prices, because consumers in this group tend to value stability and balance between quality and cost more. Promotion should be done through media that they often access, such as Facebook and WhatsApp, as well as advertisements in traditional markets and grocery stores. According to the IPA results, conventional lettuce traders should pay attention to the freshness and cleanliness of the lettuce they sell. According to the CSI results, conventional lettuce traders increase advertising, personal selling, sales promotion, and publicity.

#### **4. Conclusions and Suggestions**

##### *4.1 Conclusions*

Based on the results of the analysis and research conducted, the following conclusions can be drawn :1) Characteristics of consumers, farmers, business profiles and descriptions of hydroponic and conventional lettuce products: a. Consumers are of productive age, female, high school education level and have a relatively moderate number of family members, namely 4 people. b. Lettuce farmers are of productive age, male, hydroponic farmers have a higher education, namely high school while conventional farmers have a lower education, namely elementary school, hydroponic farmers have 3 family members and conventional farmers have 4 people, hydroponic farmers' farming experience is relatively low, namely 6 years while conventional farmers have 17 years, and the area of farmer's land is 0.25 ha. c. Hydroponic lettuce farmers use superior varieties while conventional farmers do not, the form of individual business (small) with personal capital, conventional farmers use family labor (TKDK) and outside family labor (TKLK), while hydroponic farmers only use family labor (TKDL). d. Hydroponic lettuce products are fresher, cleaner and do not wilt easily, the selling price is more expensive than conventional lettuce, the sales location for hydroponic and conventional lettuce is strategic, the traders are friendly and neat in their clothes, consumers are satisfied with the service process and physical environment such as comfort, security and parking facilities available. 2) Based on the results of the IPA analysis, the attributes that need to be improved for hydroponic lettuce consumers in quadrant I (main priority) are price discounts such as price reductions on purchases of a certain amount, while the IPA analysis, the attributes that need to be improved for conventional lettuce consumers are lettuce freshness, lettuce cleanliness, number of promotional media, promotion intensity and promotion quality. The results of the analysis of consumer satisfaction for hydroponic lettuce have a CSI Index value of 75.78% categorized as satisfied, while conventional lettuce has a CSI Index value of 59.45% in the less satisfied category. 3) Marketing strategies that can be done to increase consumer satisfaction of hydroponic lettuce based on IPA results are by providing discount prices or product price cuts, while for conventional lettuce, it is by improving the level of freshness, product cleanliness, discounts and improving the quality of promotion. According to the CSI results, hydroponic lettuce vegetable traders need to pay attention and continue to review prices that are considered expensive by consumers and need

discounts, while conventional lettuce traders increase the attributes of the number of promotional media, promotion intensity and promotion quality in product sales.

#### 4.2 Suggestions

1) It is expected that the government or related agencies can prepare a program or policy to provide training for hydroponic and conventional lettuce farmers and facilitate farmers in increasing their farming capital. 2) Improvements are needed in discount attributes for hydroponic lettuce prices, such as price reductions for purchases of a certain amount. Improvements are needed in lettuce freshness, lettuce cleanliness, number of promotional media, promotion intensity and quality of conventional lettuce promotions. 3) Marketing strategies are needed to increase consumer satisfaction of hydroponic and conventional lettuce so that consumers who buy these products feel satisfied.

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