

EFFECT PRODUCT, PRICES, PLACES, AND PROMOTION ON THE DECISION TO BUY HYDROPONIC VEGETABLES ONLINE AT PT. SAYURAN PAGI DURING THE COVID-19

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Abstract

The emergence of the COVID-19 pandemic has caused a change in behavior in society. Healthy and nutritious food such as hydroponic vegetables can be the right choice during a pandemic. This is an excellent entry for hydroponic businesses such as PT. Sayuran Pagi, but until sales are known to be still volatile and tend to decline. This research aims to analyze online purchasing decisions during the pandemic, are influenced by product most variability, price and promotion on hydroponic vegetable products from PT. Sayuran Pagi both simultaneously and partially, weaning which variables have the dominant effect. The sampling techniques used are descriptive analysis and multiple linear regression analysis. The results showed that a calculated F of 66,901 was obtained with a significance of 0.000. F table known with alpha 5% of 2,467. The results of calculation calculates $> F$ table ($66,901 > 2,467$) with a significance of $< \alpha$ ($0.000 < 0.005$) This is mean. This the variables Product, Price, Place and Promotion have a significant effect together (simultaneously) on purchasing decisions. Meanwhile, based on t-test, it is known that the Promotion variable does significantly influence decision to buy hydroponic vegetables online at PT. Sayuran Pagi during the pandemic.

Keywords: Product, Price, Place, Promotion, Purchase Decision

INTRODUCTION

Vegetables are an essential that provides vitamins, antioxidants, minerals, and other health-supporting compounds (Ebert, 2017). Along with the development of technology, vegetables are not only grown conventionally, and nowadays any have implemented cultivation without soil such as hydroponics. Hydroponics is a soilless planting system that can potentially increase agricultural yields quickly and can reduce land use by up to 75% (Croft et al., 2017).

According to Treftz & Omaye (2016: 679) there are, their cultivation system. Hydroponics has many advantages techniques can reduce soil and groundwater contamination, and can reduce vernalization (Vinci & Rapa, 2019). Vegetables produced by hydroponic techniques are relatively claimholder and have a longer shelf life. These advantages then cause their own attraction for some consumers buy hydroponic vegetables and change their consumption patterns from conventional vegetables to hydroponic vegetables. In addition, the increase in public awareness of a healthy lifestyle during the pandemic is also a reason for consumers to consume hydroponic vegetables. According to Hesham et al., (2021: 2), the existence of covid-19 has changed food. People tend to prefer products people's more health benefits (Vukasović, 2014), so that not a few ultimately prefer to consume health and nutritious foods such as hydroponic vegetables.

The Internet can be a potential market for the hydroponics business. Internet is the most promising method of selling (Tariq et al., 2019). The internet can bridge sellers with buyers online (Wahyuningrum Internet2020). At the same time, it is a challenge to be able to apply

new concepts in *online* marketing (Roy et al., 2017). Online purchases have been in demand by many people and are considered to provide more benefits (O'Hara & Low, 2020)(O'Hara & Low, 2020). Jilcott Pitts O'Hara., (2018) in O'Hara research mentioned that consumers are motivated by convenience and the ability to save time in making purchases *online*, so that consumers can do other activities when shopping. Not only in Indonesia, online grocery purchases are also quite popular in other countries such as the UK, France, US, China and South Korea (Bhatnagar et al., 2021). The use of the internet as a marketing medium can influence purchasing build loyalty to customers (Hasan & Sohail, 2020: 13), and can help companies improve their relationships with consumers and business partners (Yang, 2021).

PT Sayuran Pagi is one of the first hydroponic companies in Depok City that has been incorporated as a Limited Liability Company (PT). The company sells different types of hydroponic vegetables *online* in hopes of increasing sales significantly. However, in its implementation, *online* sales carried out by the company are known to have not made a maximum contribution and are still volatile. This is a result of changes in behavior in consumers during the pandemic. Consumers who originally bought *online* began to return to making purchases offline (Jensen et al., 2021). In addition, the lack of maximum marketing mix implemented by the company also affects the company's sales. Therefore, companies must respond company's changes as soon as possible (Rudawska, 2019), by reviewing the marketing activities they carry out to suit the wishes of consumers.

Marketing mix is a basic marketing theory used to assist companies in achieving the goals of marketing, by controlling the combination of elements of the marketing mix to influence consumer response (Lim, 2021: 3). As for this study aims to 1) Analyze the influence of product variables, prices, places, and promotions simultaneously and partially on the decision to buy hydroponic vegetables *online* at PT. Sayuran Pagi during the *COVID-19* pandemic, 2) Identifying what variables have a more dominant influence on the decision to buy hydroponic vegetables *online* at PT. Sayuran Pagi during the *covid-19* pandemic.

RESEARCH METHODS

Research Location and time

This research was conducted at PT. Sayuran Pagi which is located on Jl. Terong No.01, RT.06/RW.12 Beji, Depok, West Java. This research was conducted in June - September 2022.

Data Types and Sources

The type of research used is quantitative research. This type of research is a study that uses data in the form of numbers that are analyzed using statistical analysis. The data sources in this study used primary data obtained from filling out questionnaires assisted by Likert scale techniques related to research problems. The population in this study are consumers of hydroponic vegetables at PT Sayuran Pagi who have made online purchases for the last 6 months (December 2021 – June 2022), are >18 years old, and domiciled in Jabodetabek. The respondents in this study were as many as 100 respondents, the determination of the number used the Rao Purba formula because the number of populations is unknown. The sampling technique uses *purposive sampling technique*.

Data Analysis

Processing methods and data analysis in this study using descriptive analysis and multiple linear regression analysis. Descriptive analysis is used to analyze the data that has been collected to determine the characteristics of consumers, while multiple linear regression analysis is used to determine the effect of the independent variables namely Product (X1), Price

(X2), Place (X3) and Promotion (X4) on the dependent variable Purchase Decision (Y) using Statistical Package for the Social Science (SPSS) 26 software with the following equation model:

$$Y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + e \dots\dots\dots (1)$$

Description:	Y	= Purchase Decision	X2	= Price
	β_0	= Constanta	X3	= Place
	$\beta_1 - \beta_4$	= Regression coefficient	X4	= Promotion
	X1	= Product	e	= Standard error

To measure the contribution of product variables (X1), price (X2), place (X3), and promotion (X4) to the decision to buy hydroponic vegetables online (Y), the coefficient of determination test (R2) is used. Hypothesis testing was carried out using the F test and t test. The F test was carried out to see the simultaneous (together) effect of the independent variables on the dependent variable. Meanwhile, the t test was conducted to see the partial (individual) effect of the independent variables on the dependent variable.

Hypothesis Test

F-test (Simultaneous)

ANOVA or F test is a regression coefficient test simultaneously or together to test the significance of the influence of several independent variables on the dependent variable (Priyatno, 2014)

t-test (Partial)

The t-test is used to partially test the regression coefficient whether it has a significant effect or not. This test shows whether there is an effect of each independent variable tested at a significant level of 0.05 (Ghozali, 2011).

Dominance Test (Beta Coefficient)

The test used to find out which variable is most decisive (dominant) in influencing the dependent variable in a linear regression model sees the greatest beta coefficient value (Ghozali, 2011).

RESULTS AND DISCUSSION

The following is the result of calculations using multiple linear regression analysis.

The general equation of multiple linear regression used in this study is as follows:

$$Y = 7.268 + 0.420 X_1 + 0.383 X_2 + 0.263 X_3 + 0.068 X_4 + e$$

The result of the regression equation has a constant with a positive value, which is 7.268. This value indicates a positive (unidirectional) influence between the free variables which include product (X1), price (X2), place (X3) and promotion (X4) with a bound variable, namely the purchase decision. As for the linear regression equation above, it can be concluded as follows:

- 1) The product variable (X1) has a positively marked regression coefficient of 0.420. This means that if the variety of types of hydroponic vegetables offered by PT Sayuran Pagi online increases, with better quality and packaging, it will increase the decision to buy hydroponic vegetables *online* at PT Sayuran Pagi by 0.420.
- 2) The price variable (X2) has a positively marked regression coefficient of 0.383. This means that the more affordable and in accordance with the price with the quality and benefits of the product, it will increase the decision to buy hydroponic vegetables *online* at PT Sayuran Pagi by 0.383.
- 3) The place variable (X3) has a positively marked regression coefficient of 0.263 which means that the easier it is to access and order online, and the wider the market coverage set, the more it will increase the decision to buy hydroponic vegetables *online* at PT Sayuran Pagi by 0.263.
- 4) The promotion variable (X4) has a positive marked coefficient of 0.068, which means that the better the promotion method carried out, the more it will increase the purchase decision of hydroponic vegetables at PT Sayuran Pagi by 0.068.

Table 1. Multiple Linear Regression Analysis Calculation Results

Model	Unstandardized Coefficients		Standardized Coefficients	T count	Itself.
	B	Std. Error	Beta		
(Const-ant)	7.268	1.380		5.266	0.000000867
Product	0.420	0.071	0.464	5.933	0.000000048
Price	0.383	0.102	0.274	3.767	0.000286259
Place	0.263	0.081	0.231	3.254	0.001578742
Promotion	0.068	0.136	0.030	0.498	0.619468842
T table = 1,985					
F count = 66.901					
F table = 2,467					
R ² = 0.727					

Source: Primary Data, Processed (2022)

Hypothesis Test

Coefficient of Determination Test

The coefficient of determination indicates the magnitude of the dependent variable which can be explained by its independent variable. In this study, it was found that the adjusted *R square* was 0.727 or 72.7%. So that the variables of Product, Price, Place and Promotion jointly affect the bound variable, namely the Purchase Decision of 72.7% while the remaining 27.3% is influenced by other variables that are not studied in this study.

F-test

Based on the results of simultaneous hypothesis tests, it is known that the F value of calculating >the F of the F table is 66.901 > 2.467 with a significant rate of 0.000 < 0.05. So that the first hypothesis on the simultaneous hypothesis is declared accepted, namely H₀ is rejected and H_a is accepted, meaning that the four variables of the marketing mix, namely Product (X₁), Price (X₂), Place (X₃) and Promotion (X₄) have a significant effect together (simultaneously) on the Purchase Decision (Y) of hydroponic vegetables online at PT Sayuran Pagi. The better the marketing mix felt by consumers, the better the company's brand image in the eyes of consumers (Fcompany's al., 2020), this will certainly have a positive impact on the company, as well as affect purchasing decisions on the company. These results are in line with several studies that show a significant influence of choice motives (price, quality, comfort), socio-demographic characteristics, purchase intensity and reviews from others on food purchase decisions on a B2C basis through *online* platforms (Wang et al., 2020).

T-test

1) Product Variable T Test (X₁)

The results of the product variable t test obtained a calculated t value of 5.933 > t table 1.985 with a significance value of 0.000000048 < 0.05 which means that the product has a positive and significant influence on the purchase decision. The better the quality of the products provided by the company, the more opportunities for consumers to make purchases (Kotler and Amstrong, 2016: 114). For consumers, the quality of vegetables is an important thing that must be considered (Hsu et al., 2017), because quality both in terms of quality food standards and safety is related to the health of consumers (Olaitan et al., 2020). Therefore, whatever form of added value is offered by the company, product quality is the main thing that consumers consider in making purchases (Rayi & Aras, 2021).

2) Variable Price T Test (X₂)

The results of the price variable t test obtained a calculated t value of 3,767 > t table 1,985 with a significance value of 0.000286259 or 0.0002 < 0.05 which means that the price has a positive and significant influence on the purchase decision. The more affordable the price

offered by the company, the more it will increase purchasing decisions for consumers. The company must provide products that suit the needs of consumers, and set reasonable prices (Zhu et al., 2018). Prices that match the quality will make consumers loyal and willing to spend more money on the product itself (Hoffmann et al., 2020). suitability of price with quality can be seen from the durability of a product (Boyle et al., 2018).

3) Place variable T Test (X3)

The results of the t test of the place variable obtained a calculated t value of $3,254 > t$ table 1,985 with a significance value of 0.001578742 or $0.002 < 0.05$ which means that the place has a positive and significant influence on the purchase decision. According to Suryati (2015: 50), a place in the marketing mix is considered a critical decision that will influence the response of consumers. Strategic location and easy access can make it easier for consumers to make purchases (Nurmadina, 2016). Companies also need to provide a good and unique experience as possible (Confetto et al., 2020). With a strategic place and easy access, companies can provide a good experience for consumers in making purchases *online*, so as to convince them to make repurchases (Rudansky-Kloppers, 2017).

4) Promotion Variable T Test (X4)

The results of the promotion variable t test obtained a calculated t value of $0.498 < t$ table 1.985 with a significance value of 0.619468842 or $0.619 > 0.05$ which means that the promotion variable did not have a partial significant effect on the variable of purchasing hydroponic vegetables *online* at PT Sayur Pagi. This is because the promotions carried out by the company are currently still not strong, so they will only affect the initial purchase decision for consumers and only some will make repurchases (Horvat et al., 2022). Therefore, companies still need to increase their promotional activities, because online promotions can affect consumer interest in products (Zhang & Du, 2020), and can build a brand image in the eyes of customers (Khalayleh & Al-Hawary, 2022)

CONCLUSIONS AND SUGGESTIONS

Based on the research that has been carried out, it can be concluded that Product variables, prices, places, and promotions have a simultaneous effect on purchasing decisions, while partially the promotion variables have no effect. Product variables are variables that have a more dominant effect. Therefore, to be able to increase the decision to purchase hydroponic vegetables, PT. Sayuran Pagi needs to improve product quality, consider affordability, and increase access to online services.

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