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SINTA 2

Factors Influencing Indonesian Organic Certification Rice Consumption (Case Study of PT. Berkah Dua Agri and Agriwira Mandiri Sejahtera)

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ABSTRACT

Organic rice is rice that has the benefit of being a high source of carbohydrates and having health benefits, being fluffier and delicious to eat. Organic certification for agricultural products has a very important meaning in gaining consumer trust. The aim of this research is to analyze the factors that influence the consumption of organic rice with Indonesian Organic certification and analyze which factors have the most dominant influence on the consumption of organic rice with Indonesian Organic certification. The basic method is quantitative descriptive with purposive location determination with a total of 60 respondents. The location of this research was carried out at PT Berkah Dua Agri and Agriwira Mandiri Sejahtera. This location was determined because the research location provides organic rice with Indonesian Organic certification and has direct access to consumers who will be used as samples. The data analysis method uses multiple linear regression analysis. The research results show that the price of organic rice, number of family members and tastes have a negative influence on the consumption of organic rice with Indonesian organic certification. The price of complementary goods and the price of substitute goods have a positive influence. The income variable has no effect. The most dominant factors are the prices of complementary goods and the prices of substitute goods.

Keywords: Multiple Linear Regression, Organic Rice, Indonesian Organic Certification, Consumption

INTRODUCTION

Indonesia's population continues to increase yearly, playing an essential role in increasing consumption because population growth is directly proportional to increased consumption. Rice is a basic need for Indonesian people. A healthy lifestyle is necessary for most Indonesians, making organic rice an organic product that people in Indonesia like (Fitriah et al., 2020). Demand for organic rice in Indonesia is increasing.

Organic rice is a high source of carbohydrates, has health benefits, and is fluffier and delicious to eat. It is free from chemicals found in fertilizers, pesticides, hormones, and drugs. Organic rice cultivation uses rice seeds free from genetic engineering and fertilizer derived from animal waste and compost (Suyanto, 2016).

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According to data from the Ministry of Trade (Kemendag), Indonesia has a market share for organic products of 0.4% of the total world market share; there were 17,948 organic rice producers in 2020. The land area available for organic farming in Indonesia is enormous, from 75.5. Of the million ha of land used for agricultural businesses, 25.7 million ha has been processed for rice fields. Quality and area are considerations in land selection (Purwantini & Sunarsih, 2020).

Organic certification for agricultural products is essential to building consumer trust. Organic food products generally have higher prices compared to non-organic products. *Organic* is a labeling term stating that a product has been produced according to organic farming system standards and is certified by an accredited Organic Certification Agency. According to the laws and regulations in Indonesia, producers may only include organic claims if their products have organic certification issued by an accredited certification body. The use of the SNI Organic logo proves Indonesian standards. Research on organic rice consumption was conducted by Ar-Rozi et al. (2020) and Dadas et al. (2022).

Even Fitrial et al. (2020) researched organic rice consumption in Surakarta City. However, these studies have not used Indonesian organic certification for research objects. Therefore, this research aims to determine what factors influence the consumption of Indonesian organic rice and the dominant influence on the consumption of organic rice with Indonesian organic certification.

METHODOLOGY

Method of collecting data

The primary method of this research is a quantitative descriptive method. The quantitative descriptive method is a method that attempts to describe something that exists in the field at the time of research which is related to the factors that influence the consumption of organic rice with Indonesian Organic certification. The research location was determined purposively. The location chosen was PT. Blessings of Dua Agri and Agriwira Mandiri Sejahtera. This location was determined because the research location provides organic rice with Indonesian Organic certification and has direct access to consumers who will be used as samples in this research.

The sampling technique uses the Accidental Sampling method. According to (Fauzy, 2019), in the Accidental Sampling method, sample selection is based on spontaneity, where anyone who accidentally meets the researcher and meets the criteria. These namely individuals have purchased organic rice with Indonesian Organic certification. The minimum number of samples in this research is 60 samples.

Data analysis method

The data analysis method uses research instrument tests, namely validity and reliability tests for taste variables. The data analysis method uses classic assumption tests, namely the normality, heteroscedasticity, and multicollinearity tests. The data analysis method using multiple linear regression analysis was used to determine the effect of using factors that influence organic rice consumption, namely as follows:

$$Y = a + b1x1 + b2x2 + b3x3 + b4x4+ b4x4 + b5x5+ b6x6 + e$$

Information:

Y = Organic Rice Consumption in Surakarta City (kg/month)

X1 = Price of Organic Rice (Rp/kg)

X2 = Price of Complementary Goods (Rp/kg)
X3 = Price of Substitute Goods (Rp/kg)
X4 = Number of Family Members (People)
X5 = Household Income (Rp/month)
X6 = Consumer Tastes
a = Constant
bi = Regression coefficient
e = standard error

RESULTS AND DISCUSSION

General Conditions of Research Locations

The Indonesian organic certified rice products respondents purchased here are from PT Berkah Dua Agri and Agriwira. The brands of rice produced at Agriwira are Rice Me Up, Nut Rice, Agrorice, My Natural Shop, Karya Aguna Nusantara, and the types of rice are pandan fragrant, C4, mentik susu, black rice, brown rice, brown rice, and black rice. The superior products from Agriwira are fragrant mentik and red rice, which are very popular. The brand of rice produced at PT Berkah Dua Agri is seloromo. The types of rice at PT Berkah Dua Agri are milk mentik, fragrant mentik, C4, black, and brown rice. The superior type of PT Berkah Dua Agri product is fragrant mentik, which is in great demand everywhere. Certified and non-certified organic rice involves understanding the differences, benefits, and challenges of both types of rice. The certified organic rice production process uses organic farming methods based on certification standards. Consumers have more confidence in certified products because there is a guarantee that the product complies with organic standards.

Sixty respondents in this study were differentiated based on their characteristics. These different characteristics are seen based on gender, age, domicile address, occupation, education completed, brand of organic rice consumed, type consumed, and amount of organic rice consumed. The respondents in this study were 50% female and 50% male. The majority of respondents in this study were aged 31-64 years, and there were 58 people. Age can influence behavior toward purchasing organic rice with Indonesian organic certification. The most significant number of domiciles who purchased organic rice with Indonesian organic certification were from Karanganyar Regency, namely 28 respondents. Respondents' work types were very diverse; most worked as entrepreneurs, with 18 respondents. Based on the research results, most respondents' education was graduate from undergraduate college. The most prominent brand of organic rice with organic certification in Indonesia is Seloromo, which has 38 respondents. The most widely consumed organic rice with Indonesian organic certification is mentik wangi. The average family consumption of organic rice is 12,833 kg/month.

Factors that Influence the Consumption of Indonesian Organic Certified Organic Rice

This research uses multiple linear analysis. The factors included in the model include the price of organic rice (Rp/kg), the price of complementary goods (Rp/kg), the price of substitute goods (Rp/kg), the number of family members (people), family income (Rp/month) and taste.

Respondents Characteristics

Category	Characteristics	Jumlah
Gender	Male	30
	Female	30
Age	<30 Years	0
	31-64 Years	58
	>65 Years	2
Origin Domicile	Surakarta City	18
	Karanganyar Regency	28
	Sukoharjo Regency	11
	Boyolali Regency	3
Job	Doctor	3
	Civil Servant/Teacher	8
	Private Employee	15
	Trader/Enterpreneur	18
	TNI/POLRI (Indonesian National Military/Police)	2
	BUMN (state-owned company)	7
	Housewife	2
	Retired	5
Educational Level	Elementary Education	-
	Secondary Education	2
	Senior High School Education	2
	Diploma (D3)	1
	Bachelor Degree (S1)	44
	Master Degree (S2)	11
Organic Rice Brand	Seloromo	39
	Rice Me Up	14
	Kans	3
	Nut Rice	1
	My Natural Shop	3
Organic Rice Type	Mentik Wangi	13
	Mentik Susu	12
	Brown Rice	12
	Black Rice	1
	Ir64	2
	C4	1
	Black Sticky Rice	1

The coefficient of determination measures the extent to which the model can explain variations in the dependent variable. The coefficient of determination (R2) test shows that the R2 value is 0.652. This shows that 65.2% of the variation in the dependent variable of organic rice consumption can be explained by variations in six independent variables: the price of organic rice, price of complementary goods, price of non-certified rice, number of family members, family income, and taste. The R-value here is closer to one, the stronger the relationship between var

Model	Coeffient	Standard Error	Sig.
(Constant)	-2.624	3.051	0.394
Price of Organic Rice (X1)	-261***	.096	0.009
Price of Complementary Goods (X2)	.546**	.238	0.026
Price of Non-Certified Organic Rice (X3)	.330**	.129	0.014
Number of Family Members (X4)	-127**	.041	0.003
Family Income (X5)	.061ns	.042	0.150
Taste (X6)	-.820***	.099	0.000
R2	0,652		
Fcount	19,404***		0.000
Number of Observation	60		

Source: Primary Data Analysis, 2024

Information
*** = Real effect at 99% confidence level
** = Real effect at 95% confidence level
Ns = No real effect

The F test's function is to find out several independent variables that influence the dependent variable. Independent variables such as the price of organic rice (X1), price of complementary goods (X2), price of non-certified rice (X3), number of family members (X4), family income (X5), and Taste (X6) have a 99% confidence level and significance value 0.000 < α value (0.000 < 0.01). The regression model tested has statistical significance, meaning that the independent variables collectively have a significant relationship with the dependent variable.

The t-test aims to check the significance of the results. Independent and dependent variables can influence

this. The relationship between each variable can be explained as follows.

First, the price of organic rice (X1) has a significance value of 0.009. This value is lower than α = 0.05, so the significance is 99%. The calculated t for the organic rice price variable reached 2,724, exceeding the t table value of 1,674. This shows that H0 is accepted and H1 is rejected, which means that the price of organic rice hurts the consumption of organic rice certified by Organic Indonesia. The coefficient value is -261, which means that if there is an increase in the price of organic rice by 1%, it will reduce the amount of organic rice consumption. This research by Made et al. (2023) shows that price suitability can influence consumer interest in purchasing and consuming organic rice. The relatively high price can inhibit or reduce interest in buying and consuming organic rice.

Second, the price of complementary goods (X2) is significant at 0.026. This value is lower than α = 0.05, so the confidence level is 95%. The calculated t for the price variable for complementary goods reaches 2,290, which exceeds the t table value of 1.674. This shows that H0 is rejected and H2 is accepted, which means that the price variable of complementary goods positively affects the consumption of Indonesian Organic Certified organic rice. Complementary goods in this research are eggs and chicken; this means that eggs and chicken are complementary goods that greatly influence the consumption of organic rice. According to research by Fitriah et al. (2020), egg prices are one of the factors that influence rice demand. The demand for rice can influence rice consumption. Rice is the dominant staple food. If the price of other foodstuffs rises, it is possible to return to consuming more rice because of its availability and more stable or affordable prices.

Third, the price of substitute goods (X3) is significant at 0.014. This value is lower than α = 0.05, so the confidence level is 95%. The calculated t for the price variable for complementary goods reaches 2,549, which exceeds the t table value of 1.674. This shows that H0 is rejected and H3 is accepted, which means that the price of substitute goods positively affects the consumption of Indonesian Organic Certified Organic Rice. Substitute goods are non-certified organic rice. The price of non-certified organic rice itself is lower than that of certified organic rice. This variable price of substitute goods or non-certified organic rice shows that respondents consider substitute rice economically satisfactory, reflecting their acceptance of rice alternatives and price comparisons. This aligns with research by Bandrang (2017), where consumers tend to choose relatively cheap products that offer the best economic value, especially in challenging economic conditions. This emphasizes the importance of pricing strategies that align with consumer purchasing power. This can be concluded if the economic situation is where consumers need to save; they can switch to more affordable and economical products.

Fourth, the number of family members (X4) has a significance value of 0.003. This value is lower than α = 0.05, so the confidence level is 99%. This shows that H0 is accepted and H4 is rejected, which means that the number of family members hurts the consumption of Indonesian Certified Organic Rice. The coefficient value is -127, which means that if there is an increase in the number of family members by 1%, it will reduce the amount of organic rice consumption. Organic rice with organic certification is generally more expensive than non-certified or non-organic rice. Families with more members

may have a more limited budget, so they tend to choose cheaper rice to meet the family's needs.

Fifth, family income (X5) has a significance value of 0.150. This value is higher than α = 0.05. This shows that H0 is accepted and H5 is rejected; this means that family income has no natural partial effect on Indonesian Certified Organic Rice consumption. Family income, which does not significantly affect organic rice consumption, can be caused by several things, such as prioritizing family expenditure; even though the family has sufficient income, it has other expenditure priorities considered more critical than purchasing organic rice. In addition, families with higher incomes may still view the price of organic rice as too expensive; the perception of additional benefits in organic rice is not commensurate with the price. The income variable does not have a significant effect, which aligns with research by Dewi et al. (2023), where the variables that do not have an effect are education and income variables. The results of this research can be used as consideration for producers to maintain the quality and price of organic vegetables so that consumers can continue to consume organic vegetables regularly at affordable prices so that the community's culture of healthy living continues to increase.

Sixth, taste (X6) has a significance value of 0.000. This value is lower than α = 0.05, with a confidence level of 99%. This shows that H0 is accepted and H6 is rejected, which means that taste hurts the consumption of Indonesian Certified Organic Rice. The coefficient value is -820, which means that if there is an increase in taste by 1%, the consumption of organic rice will decrease. Consumers feel that the health benefits of organic rice are not enough to offset the habitual ones. Consumers consume organic rice because rice is affordable and satisfying. This research aligns with Risty Cut TB (2018), who states that the taste variable has no natural effect on the demand for organic rice. Even though most consumers dislike organic rice, demand remains because consumers prioritize the food's safety.

The Most Dominant Factors in the Consumption of Indonesian Organic Certified Organic Rice

Variable	*Standardized Coefficients (β)*
Price of Organic Rice (X1)	-0,229
Price of Complementary Goods (X2)	0,181
Price of Substitute Goods (X3)	0,204
Number of Family Members (X4)	-0,263
Income (X5)	0,121
Taste (X6)	-0,697

The most dominant factor is the price of substitute goods with a Standardized Coefficient value of 0.204. The Standardized Coefficient value for the substitute goods price variable is the highest compared to the Standardized Coefficient values for other variables. The price of substitute goods has a positive effect on Indonesian Certified Organic Rice consumption. It can also be interpreted that every increase in standard deviation will affect the consumption of organic rice with Indonesian organic certification.

CONCLUSION

Based on the research results, the price of organic rice, the number of family members, and tastes negatively influence the consumption of organic rice with Indonesian organic certification. In contrast, the price of complementary goods and the price of substitute goods have a positive influence. Meanwhile, the income variable does not affect organic rice consumption. Based on the analysis results, the most dominant factor is the price of substitute goods.

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