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THE INFLUENCE OF NUTRITION AWARENESS ON COW'S MILK CONSUMPTION IN INDONESIA

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Abstract

This study aims to determine the level of nutritional awareness among Indonesian people in consuming cow's milk. The method used in this study is quantitative analysis with Ordinary Least Square (OLS) data processing techniques. The type of data used is Time Series data, namely 2002 to 2022, in a period of approximately 20 years. This study uses data on average milk consumption as the dependent variable and data on per capita income, and average length of schooling as independent variables. The data used comes from the Central Statistics Agency (BPS), the Organisation for Economic Co-operation and Development (OECD), and the World Bank. The results of the analysis show that there is only 1 independent variable that significantly influences the average consumption of cow's milk, where the level of education plays an important role in shaping consumer behavior related to cow's milk. A higher level of education can increase nutritional awareness and public knowledge about the benefits of cow's milk.

Keywords: ***Nutrition Awareness, Cow's Milk Consumption, Indonesia***

Background

Public health plays a vital role in sustainable development efforts amidst rapid global change. In rapidly developing Indonesia, we are facing major changes in people's lifestyles and the way they consume food. These changes are mainly related to the increase in living standards, which is not only due to a growing economy, but also reflects more general changes in people's lifestyles that are increasingly modern and complex. In this regard, the way people choose and consume food has a major impact on their general well-being and health. Therefore, people's consumption patterns are very important to pay attention to.

Rising living standards, accompanied by economic development and lifestyle transformation, create unique challenges and opportunities, especially in the public health sector. Changes in people's consumption patterns are becoming increasingly complex and diverse, and nutritional awareness is a key determinant in navigating these dynamics. Nutritional awareness does not only include an understanding of nutrition, but also involves psychological and social factors that shape people's consumption preferences and choices. As a country with a strong agricultural history, Indonesia faces challenges in managing cow's milk consumption patterns, given its potential as a source of high-value nutrition.

The gap in public understanding of the nutritional benefits that can be obtained from cow's milk is the basis for the emergence of serious challenges for the livestock sector in Indonesia. This challenge is particularly evident in the face of the potential decline in demand for cow's milk which can have an impact on producers and create economic imbalances in the livestock industry. Therefore, a deep understanding of the influence of the level of nutritional awareness on cow's milk consumption is a very crucial aspect, especially considering the dynamic changes in community consumption patterns. In this context, it is important to identify the impact of the lack of nutritional awareness among the community on their consumption choices, so that effective strategies can be formulated to increase nutritional awareness and ensure the sustainability of the livestock industry in Indonesia. Concrete efforts to increase public understanding of the nutritional benefits of cow's milk are an important foundation in facing this challenge and lead to

the development of supportive policies, in line with the dynamics of changes in consumption patterns that continue to develop.

Facing the dynamic changes in people's consumption patterns requires a holistic and deeply informed approach. By investigating and understanding the factors that influence nutritional awareness, this study is expected to be the basis for formulating more effective strategies in overcoming the complexity of challenges faced by the livestock industry in this era of dynamically changing consumption patterns. Higher nutritional awareness among the community can be the key to improving the economic conditions and welfare of livestock in Indonesia, while supporting efforts to achieve sustainable development goals in the context of ever-growing globalization.

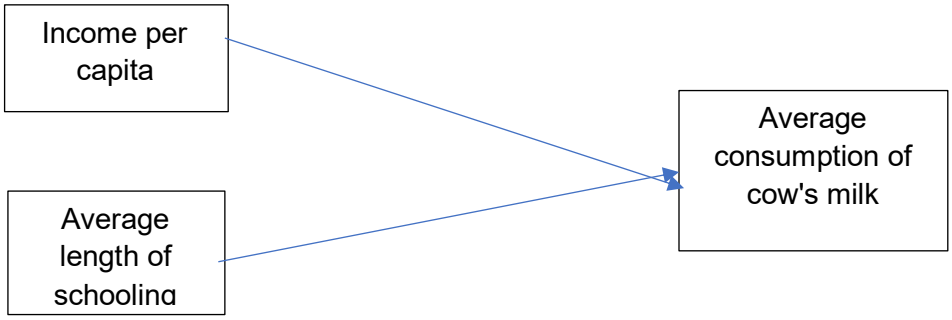
Formulation of the problem

The increase in living standards in the transformation of people's consumption preferences, which often causes a shift in priorities in choosing food and drinks. The lack of comprehensive understanding of the nutritional benefits obtained from consuming cow's milk can create serious consequences for the livestock industry, because people tend to make less than optimal consumption choices, potentially causing a decrease in demand for cow's milk. This impact not only affects cow's milk producers, but can also create economic imbalances in the livestock sector as a whole. Therefore, concrete efforts need to be made to increase nutritional awareness among the community to overcome this problem and ensure healthier and more sustainable consumption choices.

Research purposes

This study aims to determine the level of nutritional awareness among Indonesian people in consuming cow's milk.

Framework of thinking



Theoretical basis

The theory used in this study is the theory of consumer behavior. According to Kotler and Keller (2022), consumer behavior is about exploring how individuals, groups, and organizations choose, buy, use, and evaluate goods, services, ideas, or experiences to meet their needs and desires.

Research methods

The method used in this study is quantitative analysis with Ordinary Least Square (OLS) data processing techniques. The type of data used is Time Series data, namely 2002 to 2022, in a period of approximately 20 years. This study uses average milk consumption data as the dependent variable and per capita income data, and average length of schooling as independent variables. The following is the econometric model:

$$RKSt = \beta_0 + \beta_1 PPKt + \beta_2 RLSt + \varepsilon t$$

Information :
RKSt = Average Milk Consumption
PPKt = Income per Capita
RLSt = Average Length of Schooling

β_0= Constant
εt= Error term

The tests conducted in this study were classical assumption tests consisting of multicollinearity tests, autocorrelation tests, heteroscedasticity tests, and normality tests.

Table 1. Data Summary

No	Variable Name	Unit	Source
1	Average Milk Consumption in Indonesia per Year (Kg) 2002-2022	Ton	*Organisation for Economic Co-operation and Development*(OECD)
2	Income per Chapter Indonesia 2002-2022	% (Percent)	*World Bank*
3	Average Length of Schooling 2002-2022	Year	Central Bureau of Statistics

Results and Discussion
Classical Assumption Test
Classical assumption tests are a series of statistical tests conducted to check whether the classical regression model meets important basic assumptions. The classical regression model relies heavily on four main assumptions, namely linearity, multicollinearity, heteroscedasticity, and absence of autocorrelation. Classical assumption tests are used to evaluate whether these assumptions are met or not.

- Multicollinearity Test
  Multicollinearity test is a test whether the regression model is formed by a high correlation between independent variables. If there are high symptoms between independent variables, it can be stated that there are symptoms of multicollinearity in the study with a tolerance value of 70% or 80%.

	PPK	RLS
PPK	1.000000	-0.451515
RLS	-0.451515	1.000000

  From the results of the multicollinearity test, the variables are below 0.8, namely 0.451515, so it can be concluded that there are no problems or symptoms of multicollinearity.

- Autocorrelation Test
  Autocorrelation test is a correlation that occurs between residuals in one observation with other observations in the regression model. Autocorrelation can be known through the Breusch-Godfrey test, which is a test used to test whether or not there is a correlation in the regression model or to find out whether in the model used there is autocorrelation between the observed variables.

Breusch-Godfrey Serial Correlation LM Test:
Null hypothesis: No serial correlation at up to 2 lags

F-statistic	6.824382	Prob. F(2,16)	0.0072
Obs*R-squared	9.667318	Prob. Chi-Square(2)	0.0080

From the results of the autocorrelation test that we conducted, the probability is 0.0800 > 0.05, so it can be concluded that there is no autocorrelation symptom in the research model.

- Heteroscedasticity Test

The heteroscedasticity test is used to determine whether or not there is a deviation from the classical assumption. Heteroscedasticity is the existence of inequality of residual variance for all observations in the regression model.

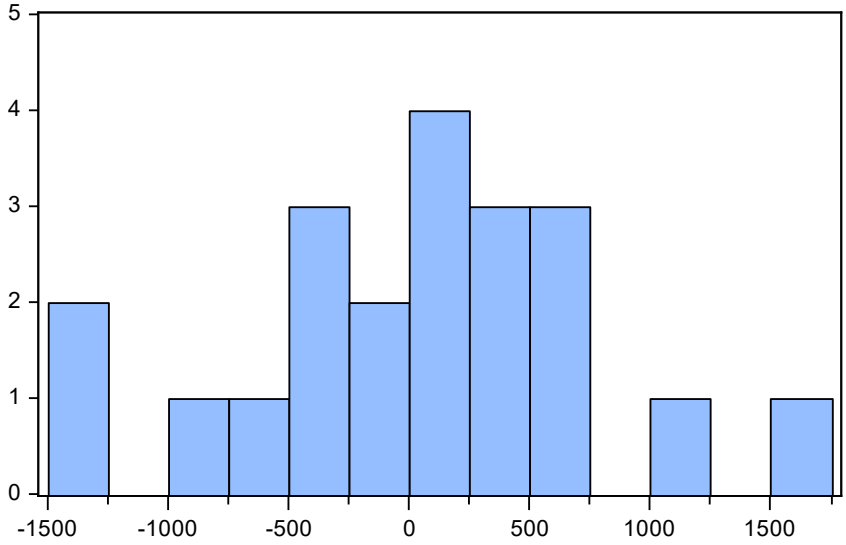
Heteroskedasticity Test: White
Null hypothesis: Homoskedasticity

F-statistic	0.637465	Prob. F(5,15)	0.6747
Obs*R-squared	3.680246	Prob. Chi-Square(5)	0.5963
Scaled explained SS	0.887612	Prob. Chi-Square(5)	0.9711

From the results of the heteroscedasticity test using the White method, the probability value is 0.5963 > 0.05 so it can be concluded that there are no symptoms of heteroscedasticity in the research model.

- Normality Test

Normality test to test whether the standardized residual value in the regression model is normally distributed or not. This test is carried out using the normal probability plot graph analysis approach. The residual value is normally distributed if the line that describes the actual data follows or approaches its diagonal line.



Series: Residuals
Sample 2002 2022
Observations 21

Mean	-7.04e-13
Median	25.08345
Maximum	1550.616
Minimum	-1385.759
Std. Dev.	728.5693
Skewness	0.038956
Kurtosis	2.910370
Jarque-Bera	0.012341
Probability	0.993849

From the test results above, it can be seen that the probability value is 0.421886 > 0.05, meaning that the residual research data is normally distributed.

Regression Results

Dependent Variable: RKS
Method: Least Squares
Date: 12/08/23 Time: 05:18
Sample: 2002 2022
Included observations: 21

Variable	Coefficient	Std. Error	t-Statistic	Prob.
C	46811.79	9981.797	4.689716	0.0002
PPK	399.3507	318.4511	1.254041	0.2259
RLS	6882.038	1180.584	5.829350	0.0000

R-squared	0.668913	Mean dependent var	102189.8
Adjusted R-squared	0.632126	S.D. dependent var	3625.758
S.E. of regression	2199.117	Akaike info criterion	18.36106
Sum squared resid	87050059	Schwarz criterion	18.51028
Log likelihood	-189.7912	Hannan-Quinn criter.	18.39345
F-statistic	18.18323	Durbin-Watson stat	0.628631
Prob(F-statistic)	0.000048		

Based on the results of the regression that has been done, it can be concluded that from the variables of income per capita and average length of schooling, only the average length of schooling has significance on milk consumption owned by 0.000 <0.05 (alpha). There are several factors that may cause per capita income to be insignificant. Although per capita income can reflect the purchasing power of the community in general, high inequality in income distribution can make most of the population unable to access or have sufficient purchasing power to consume cow's milk which is relatively expensive compared to other food products. The assumption that only per capita income is insignificant on average cow's milk consumption in Indonesia, while the variables of population and average length of schooling are significant, can be explained through an analysis of the impact of these factors on consumer behavior and structural characteristics of society.

Meanwhile, the significant average length of schooling can be interpreted as meaning that the level of education of the community plays an important role in increasing nutritional awareness and knowledge about the benefits of consuming cow's milk. A more educated community tends to have a better understanding of the nutritional value and health benefits of cow's milk, thus increasing their demand for this product. Thus, these results can strengthen the argument regarding the influence of nutritional awareness on cow's milk consumption in Indonesia. Nutrition awareness driven by higher education levels can be the main driver in increasing cow's milk consumption, while economic factors, especially insignificant per capita income, may be less influential due to significant economic disparities among social strata. This assumption is explained by considering that nutritional awareness may have a stronger role in determining cow's milk consumption than relying solely on per capita income. Nutrition awareness in the community is an important step in designing an effective strategy to increase cow's milk consumption in Indonesia.

Conclusion

The results of the regression conducted using average milk consumption data as a dependent variable, per capita income variables and average length of schooling (independent), can show that there is only 1 independent variable that significantly influences the average consumption of cow's milk, where the level of education plays an important role in shaping consumer behavior related to cow's milk. Higher levels of education can help increase nutritional awareness and public knowledge about the benefits of cow's milk. Nutritional awareness is considered a key element that can trigger positive changes in consumer behavior, which in turn can support economic balance in the livestock sector as a whole.

Therefore, concrete efforts to increase public understanding of the nutritional benefits of cow's milk are a strategic step in designing policies that support the development of the livestock industry in Indonesia amidst dynamic changes in consumption patterns.

REFERENCES

Anggraeni, E. D., Hidayat, S. I., & Amir, I. T. (2021). Persepsi dan Minat Masyarakat Terhadap Konsumsi Susu. *Jurnal Sosial Economic of Agriculture, 10*(01).

Badan Pusat Statistik. (n.d.). *{Metode Baru} Rata-rata Lama Sekolah (Tahun) 2010-2022*. Retrieved from Badan Pusat Statistik: https://www.bps.go.id/id/statistics-table/2/NDE1IzI=/-metode-baru--rata-rata-lama-sekolah.html

Badan Pusat Statistik. (n.d.). *Rata-rata Lama Sekolah (Tahun), 2002-2009*. Retrieved from Badan Pusat Statistik: https://www.bps.go.id/id/statistics-table/2/NSMy/rata-rata-lama

Menteri Kesehatan Republik Indonesia. (2014). *Peraturan Menteri Kesehatan Republik Indonesia Nomor 23 Tahun 2014 tentang Upaya Perbaikan Gizi*. Retrieved from chrome-extension://efaidnbmnnnibpcajpcglclefindmkaj/https://platform.who.int/docs/default-source/mca-documents/policy-documents/law/IDN-CH-38-03-LAW-2014-ind-MoH-Regulation-23-2014---Means-to-Improvement-of-Nutrition.pdf

Organisation for Economic Co-operation and Development. (n.d.). *OECD-FAO Agricultural Outlook 2022-2031*. Retrieved from OECD-FAO Agricultural Outlook: https://stats.oecd.org/Index.aspx?DataSetCode=HIGH_AGLINK_2022#

World Bank. (n.d.). *GDP growth (annual %) - Indonesia*. Retrieved from The World Bank: https://data.worldbank.org/indicator/NY.GDP.MKTP.KD.ZG?end=2022&locations=ID&start=2022&view=bar