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MARKETING | RESEARCH ARTICLE

Analysis of Factors Affecting Consumer Demand

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Abstract: The objectives of this study are (1) To determine the effect of price and income partially on consumer demand and (2) To simultaneously determine the effect of price and income on consumer demand. This research is a quantitative study with two independent variables and one dependent variable with the test tools to be used, namely (1) validity test, (2) reliability test, (3) multiple linear regression test, t-test (partial), and f-test (Simultaneous). The sample used in this study was 96 respondents. Processing research data using multiple linear regression with SPSS version 24.0 software tools to read the direction of the influence of the independent variable on the dependent variable partially t-test and f-test. The results showed that price partially affects consumer demand. Income has a partially significant effect on consumer demand. The results show that price and income significantly affect consumer demand.

Keywords: Price, Income, Consumer Demand.

JEL Classification Code: D12, E21, M31

1. INTRODUCTION

The most significant potential of Indonesia is its abundance of natural resources such as mines, land, and oceans. The community generally manages natural resources through land management (agriculture). Various needs for facilities and infrastructure that support the processing of agricultural land include seeds, fertilizers, pesticides, hoes, tractors, and others. Currently, the needs of production facilities and infrastructure that support agriculture are widely offered on the market. They are easy to find in various salesplaces or shops that provide and sell them. Therefore, there is competition between producers in offering agricultural products, so consumers are interested and intend to choose and buy the products offered. This activity is often known as marketing, although sales are not the most essential part of marketing. According to Tjiptono and Diana (2020: 3) Marketing is creating, distributing, promoting, and pricing goods, services, and ideas to facilitate satisfying exchange relationships with customers and to build and maintain positive relationships with stakeholders in a dynamic environment.

Demand theory is an economic theory that states that prices are influenced by demand. Therefore, the theory assumes that when demand in the market rises, so will the price of goods. However, if demand falls, prices will also fall. The fall in demand is initially caused by rising or too high prices in the market, so people rethink spending. So, when people are not interested in buying their goods (producers), producers will reduce their prices so that people can consume the goods they produce again. According to Fitri (2021), Demand is a certain amount of goods at various price levels that a person wants and can buy, whereas other factors are considered constant (*ceteris paribus*).

The object of this research is a business that provides special equipment and products for agriculture, namely Toko Ratu Tani. Which is located on Jalan Kompleks Pasar Sudu, Kambiolangi Village, Alla District, Enrekang Regency, South Sulawesi Province. The initial survey of researchers found several factors influencing consumer demand at Toko Ratu Tani, namely price and income factors. Toko Ratu has also offered consumers payment terms (Term Of Payment) or payment on



time, where consumers can take goods in advance with the terms of the specified payment tempo. However, this is also complained about by the community, where the increase in the price of goods is not by the regular price offered. Furthermore, the problems that are often complained about by the community in terms of income, where in cultivating crops, the community requires a relatively large supply of fertilizers and pesticides, but sometimes the results of the cultivation are not by the initial expectations of the community (farmers). Seeing this indirectly, the community's demand for fertilizer and pesticide needs must be met to get the expected results; besides, the selling price increases every time and makes people think about using fertilizers and pesticides.

2. LITERATURE REVIEW

The marketing concept emphasizes forecasting consumers' needs and wants, juxtaposed with structured or integrated marketing activity, to achieve individual and group goals within a company. According to Alma (2021), Marketing is an activity or process carried out by someone not only offering goods or selling but also using various methods to create a sale and purchase agreement between consumers and producers. Meanwhile, Warnadi and Triyono (2019) say marketing includes activities to identify consumer needs, marketing research, product development, pricing distribution, and promotion. Kotler and Armstrong (2019) also express a similar opinion, stating that marketing is a social and managerial process by which individuals or organizations get what they need and want through creating and exchanging value with others. According to Alma (2021), price is the currency value consumers exchange for using or consuming certain products or services with the benefits consumers need or want. Meanwhile, according to Kotler & Armstrong (2019), Price is one of the elements in the marketing mix that generates revenue, while the other elements cost money. According to Sukirno (2002), income is the amount of income the population receives for their work performance during a specific period, either daily, weekly, monthly, or annually. There are several classifications of income, namely:

- a. Personal income is earned without providing any activity received by country residents.
- b. Disposable income is personal income minus taxes that income recipients must pay; the remaining income ready to be spent is called disposable income.
- c. National income is the value of a country's finished goods and services in one year.

According to Samowo and Sunyoto (2013), Demand is the goods demanded in a particular market at a certain price level. This comes from the assumption that every human being has needs. Because of this need, there is a demand for goods to fulfill human needs. Meanwhile, according to Akhmad (2014), Demand can also be interpreted as a certain amount of goods at various price levels that a person wants and can buy, where other factors are considered constant (*ceteris paribus*). Syafii (2020) also expressed a similar opinion: Demand can be interpreted as the result of negotiations in the purchasing process carried out with consumers at a time or period of several goods or services.

3. RESEARCH METHOD AND MATERIALS

3.1. Data Type and Source

In terms of its nature, data is categorized into qualitative data and quantitative data. According to Sugiyono (2019), Quantitative data is data in the form of numbers or graded qualitative data. Sugiyono (2019) states that qualitative data is data in words, sentences, schemes, and images. Based on the explanation above, the author concludes that quantitative data is data in the form of numbers or data sourced from statistical results. Meanwhile, qualitative data is in words, documents, and an overview of the research object. Based on its source, data can be categorized into primary and secondary. Sugiyono (2019) states that primary data is a data source that directly provides the data for data collection. According to Sugiyono (2019: 193), Secondary data is a source that does not directly provide data to data collectors. Based on the explanation above, the researcher concludes that he processes primary data. Meanwhile, secondary data is data obtained from other parties or sources.

3.2. Population and Sample

According to SuSugiyono, (2019) Population is a generalization area consisting of objects or subjects with specific qualities and characteristics set by researchers to study and then draw conclusions. This study uses a limited population, namely a population with clear quantitative boundaries. Hence, the population in this research is all consumers who make purchases at Toko Ratu Tani Enrekang Regency with an unknown or unlimited population. According to Sugiyono, (2019) The sample is part of the number and characteristics researchers consider representative. In this study, the population is unknown or unlimited. According to Sugiyono (2019), if the population in the study is uncertain, then the number of samples can be calculated using the Cochran formula.

$$\frac{z^2pq}{e^2}$$

Description:

- n = Number of samples determined
- z = Normal curve for 5% deviation, with the value set at 1.96
- p = 50% chance of being correct = 0.5
- q = 50% chance of being wrong = 0.5
- e = Sampling error rate, 10% = 0.1.

The calculation of the Cochran formula above shows that the number of samples in this study was 96.04, then rounded up to 96 samples as respondents. Furthermore, according to Sugiyono (2019), Incidental Sampling is a sampling technique based on chance; that is, anyone who coincidentally / incidentally meets the researcher can be used as a sample if it is deemed that the person who happened to meet was suitable as a data source.

3.3. Data Collection Methods

The data collection method is essential in research because it is a strategy or method researchers use to collect the data needed for their research. Researchers obtain data and information related to this research activity using:

- a. Observation is direct observation of the research object to see the activities happening up close. Sugiyono (2019). Observations were made in this study by observing and recording employees' behavior, habits, and behavior on the move and observing the objects, attributes, or equipment used at work.
- b. Interview is a way of collecting data to obtain information directly from the source. Sugiyono (2019). The interview aims to obtain preliminary information related to issues or problems in the object so that the researcher can determine precisely what problems or variables should be studied.
- c. Questionnaire, according to Sugiyono (2019) It is a data collection technique that gives respondents a set of questions or written statements to answer. The measurement of variables in this research questionnaire uses a Likert scale, which measures the attitudes, opinions, and perceptions of a person or group related to phenomena in research. Sugiyono (2019).

Table 1. Likert Scale for Measuring Attitudes, Opinions, and Perceptions

Description	Score
Strongly Agree	5
Agree	4
Neutral	3
Disagree	2
Strongly Disagree	1

3.4. Data Processing and Analysis Techniques

Analyzing data is an effort or strategy to manage information obtained from research so that it becomes meaningful data so that the nature of the information can be understood and used to answer problems that arise, including in the research activities carried out. The research approach used in this research is quantitative research with an associative method approach to see the relationship between the research variables, the dependent variable, and the independent variable. To make it easier for researchers to manage and analyze data, Microsoft Excel software is used to help tabulate data, and IBM SPSS software for data processing.

3.5. Testing the Quality of Research Instruments

In testing the quality of research data, a researcher's initial perception highly depends on the quality of the questionnaire statements used in collecting data. In this research, two parts were used to test the quality of the data, namely.

a. Instrument Validity Testing

According to Sugiyono, (2019) The validity or validity test is used to determine the extent of the accuracy of a measuring instrument in performing its measuring function. This test is carried out by comparing the results of the recount with the results of the table; the significant level used by this study is 0.05. count is seen from the Pearson correlation output from SPSS, while the table is seen from the r-distribution table. First, the Degree of Freedom must be known, combined with the significance level of the research used. Degree of freedom formulation: $df = N - 2$

Description: N = Number of samples
 2 = Number of independent variables

Decision parameters for validity testing:

When the number r-estimated $>$ r-, the research instrument items are valid

When the number r count $<$ r table, the research instrument item is invalid

b. Reliability Testing

Reliability testing means the extent to which the measurement results can be trusted. This means that a measurement result can be trusted if several measurements are carried out on the same subject; relatively the same results are obtained as long as the aspects measured in the subject have not changed. In other words, the questionnaire is said to be reliable or reliable if a person's answer to a statement is consistent or stable over time.

Decision parameters for reliability testing:

When Cronbach's alpha number $>$ 0.60 is stated to be reliable

When the Cronbach's alpha number $<$ 0.60, it is stated to be unreliable.

3.6. Data Analysis Testing

The data analysis test used multiple linear regression analysis in this study because it has two independent variables and one dependent variable. Ghazali (2018) states that multiple linear regression models are used to test the effect of the independent variable on the dependent variable. In multiple regression, the independent variables influence the dependent variable, the number of which is more than one.

Multiple regression equation: $Y = \alpha + b X_1 + b X_2 + e$

Description :

Y = Consumer Demand



- α = Constant (state when not influenced by other variables)
- β = Regression Coefficients Line (Direction of Influence)
- X1 = Price
- X2 = Revenue
- E = Error (Variables not included in the model)

3.7. Research Hypothesis Testing

a. Partial Test (t statistical test)

Ghozali, (2018) Argues that t-statistical testing is carried out to witness all independent variables' ability to describe the dependent variable's behavior independently (partially). Testing individually is used to compare the count and table numbers. To see the count number, the method used pays attention to the results of the coefficient regression analysis while looking at the t-value; the technique used is the determination of the degree of freedom or degree of freedom, using the amount of error worth 5% or 0.05. Furthermore, it is looked for on the T-distribution table.

- Formulation t-estimated = $a/2 ; N - K - 1$
- Description:
 - a = Confidence level
 - N = Sample
 - K = Total independent variables

Parameters for deciding the effect of the partial test:
 When the number t-calculate > t-estimated = partial effect
 When the t-calculated < t-estimated = has no partial effect
 Parameters for determining significance decisions:
 When the significance number < 0.05 = significant
 When significance > 0.05 = not substantial

b. Simultaneous Test (F statistical test)

According to Sugiyono (2019), The F-statistical test is carried out to show all independent variables included in the model that have a joint (simultaneous) influence on the dependent variable. This F-test compares the F-calculated value with the F-value. The F-calculated value is determined by looking at the results of the Analysis of Variance (ANOVA) regression analysis at the SPSS output. To find out the F value, first assess the degree of freedom, namely DF1 (numerator or denominator) and DF2 (numerator or denominator), then choose the significance level and see the F distribution table.

4. RESULTS AND DISCUSSION

4.1. Data Quality Testing Results

a. Validity Test Results

Ghozali (2018), Suggests that validity testing is used to measure whether each statement item made on the questionnaire is valid. This test is carried out by comparing the count value with the t-value. The value of the count can be determined by looking at the SPSS output in the Pearson Correlation column. Meanwhile, to find out the value of travel with steps, the first is to assess the significance of the research, then look for the degree of freedom, and then see the product moment distribution table.

Table 1. Validity Test Results

No.	Item Response	Loading Factor	Measurement	Description
1	X1.1	0,612	0,201	Valid
2	X1.2	0,473	0,201	Valid
3	X1.3	0,557	0,201	Valid
4	X1.4	0,396	0,201	Valid

No.	Item Response	Loading Factor	Measurement	Description
5	X1.5	0,449	0,201	Valid
6	X1.6	0,336	0,201	Valid
7	X1.7	0,717	0,201	Valid
8	X1.8	0,738	0,201	Valid
9	X2.1	0,466	0,201	Valid
10	X2.2	0,502	0,201	Valid
11	X2.3	0,548	0,201	Valid
12	X2.4	0,580	0,201	Valid
13	X2.5	0,559	0,201	Valid
14	X2.6	0,617	0,201	Valid
15	X2.7	0,542	0,201	Valid
16	X2.8	0,531	0,201	Valid
17	Y.1	0,307	0,201	Valid
18	Y.2	0,713	0,201	Valid
19	Y.3	0,463	0,201	Valid
20	Y.4	0,593	0,201	Valid
21	Y.5	0,657	0,201	Valid
22	Y.6	0,298	0,201	Valid
23	Y.7	0,531	0,201	Valid
24	Y.8	0,5667	0,201	Valid

The results of testing the validity of Table 1 show that each instrument item proposed in this study has a value greater than the label (0.201); this means that all instrument items proposed in this research variable are said to be valid and meet the requirements for reliability testing.

b. Reliability Test Results

Ghozali (2018) States that reliability testing is a questionnaire measuring tool contained in the indicators of each variable; a questionnaire or questionnaire is said to be reliable or reliable if the respondent's response to the statement offered is consistent or stable over time. This test compares the Cronbach's Alpha Value with the Cronbach's Alpha Standard Value (0.60).

Table 3. Reliability Test Results

Variable Name	N of Items	Cronbach's Alpha	Cronbach's Alpha Standard	Info
Price (X1)	8	0,658	0,60	Reliable
Income (X2)	8	0,656	0,60	Reliable
Consumer Demand (Y)	8	0,632	0,60	Reliable

The results of testing table 2 related to the results of reliability testing, it is concluded that all variable statements in this study show a Cronbach's alpha value more significant than the standard Cronbach's alpha value (0.60), so it is said that all statements in the proposed variables are considered reliable or relatively reliable and consistent, meaning that they are eligible for data analysis.

4.2. Multiple Linear Regression Analysis Results

Ghozali (2018) The multiple linear regression model is used to test the effect of the independent variable on the dependent variable; in multiple regression, the independent variables that are considered affect the dependent variable, which is more than one. The study uses multiple linear regression analysis because it has three independent variables (capital, production, and price) while the dependent variable (income).

Table 3. Multiple Linear Regression Analysis Results

Coefficients						
Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3,970	1,804		2,201	0,030
	Price	0,397	0,083	0,413	4,766	0,000
	Revenue	0,481	0,085	0,489	5,650	0,000
a. Dependent Variable: Consumer Demand						

Table 3 shows the results of multiple linear regression analysis; the results obtained: $Y = 3.970 + 0.397 X_1 + 0.481 X_2 + e$

The results of the multiple linear regression equation are interpreted as follows:

- The Constant (a) value is 3.970 or the state where the consumer demand variable (Y) has not been influenced by other variables, meaning that if there is no change in the price and income variables, the value of consumer demand at Toko Ratu Tani Enrekang Regency is 3.970.
- Price regression coefficients with a positive direction of 0.397. This shows that the price variable positively influences consumer demand at Toko Ratu Tani, Enrekang Regency, meaning that every time there is an increase in the price variable, it can increase consumer demand by 0.397 if other variables do not change or are constant.
- Coefficients Regression income with a positive direction of 0.481. Indicates that the income variable positively influences consumer demand at Toko Ratu Tani Enrekang Regency, meaning that every increase in the income variable will increase consumer demand by 0.481, assuming other variables do not change or are constant.

4.3. Research Hypothesis Testing

Table 4. The results of testing the first research hypothesis

Coefficients				
Model	t count	t tabel	b1X1	Sig.
Price	4,766	1,986	0,397	0,000
a. Dependent Variable: Consumer Demand (Y)				

Table 4 of the results of testing the first research hypothesis, the effect between price and consumer demand, shows the count value 4.766 < ttable 1.986, which is interpreted as having a partial effect; the significance value is 0.000 < 0.05, which is interpreted as significant. The results of the analysis show that price partially affects consumer demand at Toko Ratu Tani Enrekang Regency. This answers the initial perception of the researcher; in other words, the first hypothesis proposed in this study is accepted.

Table 5. The results of testing the second research hypothesis

Coefficients				
Model	t count	t-estimated	b2X2	Sig.
Revenue	5,650	1,986	0,418	0,000
a. Dependent Variable: Consumer Demand (Y)				

Table 5 of the results of testing the first research hypothesis, the effect between income and consumer demand, shows the count value 5.650 > ttable 1.986 is interpreted as having a partial effect, and the significance value is 0.000 < 0.05 is interpreted as significant. The results of the analysis show that income partially affects consumer demand at Toko Ratu Tani Enrekang Regency. This has answered the initial perception of the researcher; in other words, the second hypothesis proposed in this study is accepted.

a. Simultaneous Hypothesis Testing Results (F Test)

Simultaneous statistical testing or simultaneous testing aims to describe all the abilities of independent variables included in the model that simultaneously influence the dependent variable. Simultaneous hypothesis testing criteria are compared by comparing the count with the table. The significance level used is 5% or 0.05.

Table 6. The results of testing the third research hypothesis

ANOVA ^a						
	Model	Sum of Squares	df	Mean Square	F	Sig.
1	Regression	1036,037	2	518,018	122,056	.000b
	Residuals	394,703	93	4,244		
	Total	1430,740	95			
a. Dependent Variable: Consumer Demand						
b. Predictors: (Constant), Income, Price						

The results of simultaneous testing of price and income variables in Table 6 show the value of F-calculated $122.056 > F$ -estimated 3.094 , which means that it has a simultaneous/simultaneous effect. The significance value of $0.000 < 0.05$ is interpreted as significant. This answers the researcher's initial perception that price and income simultaneously significantly affect consumer demand at Toko Ratu Tani Enrekang Regency. In other words, H_0 is rejected, and H_3 is accepted, which means the third hypothesis proposed in this study is accepted.

4.4. Research Discussion

a. The Effect of Price on Consumer Demand at Toko Ratu Tani Enrekang Regency

The results of data analysis obtained in this study using a partial statistical test, showing the count value $4.766 < \text{table } 1.986$ is interpreted as having a partial effect, and the significance value of $0.000 < 0.05$ is interpreted as significant. The results of the analysis show that price partially affects consumer demand at Toko Ratu Tani Enrekang Regency.

b. The Effect of Income on Consumer Demand at Toko Ratu Tani, Enrekang Regency

The results of this partial research show that the t-calculated value $5.650 > t$ -estimated 1.986 is interpreted as partially influential; the significance value of $0.000 < 0.05$ is interpreted as significant. The results of the analysis show that income partially affects consumer demand at Toko Ratu Tani Enrekang Regency.

c. The Effect of Price and Income on Consumer Demand at Toko Ratu Tani, Enrekang Regency

The simultaneous hypothesis test research results show that f-calculated $122.056 > F$ -estimated 3.094 means that it has a simultaneous/simultaneous effect, and the significance value of $0.000 < 0.05$ is interpreted as significant. This answers the researcher's initial perception that price and income simultaneously significantly affect consumer demand at Toko Ratu Tani Enrekang Regency.

5. CONCLUSION

Referring to the discussion previously described, the conclusion of this research is based on the results of data analysis, which is associated with the formulation of the problems discussed earlier. Therefore, the researcher concludes: (1) Price has a partially significant effect on consumer demand at Toko Ratu Tani, Enrekang Regency (2) Income has a partially significant effect on consumer demand at Toko Ratu Tani, Enrekang Regency (3) Price and income simultaneously significantly affect consumer demand at Toko Ratu Tani, Enrekang Regency. From the research results, the researcher must provide suggestions in the form of input as a material consideration to increase consumer demand at Toko Ratu Tani Enrekang Regency (1). It is recommended to the owner or owner of Toko Ratu Tani Enrekang Regency, so that it is necessary to pay attention to providing

prices for goods and services to consumers, such as giving discounts or discounts when consumers make large purchases, providing low prices for goods and services compared to several competitors, so that consumers will increase demand for goods and services at Toko Ratu Tani Enrekang Regency. (2) It is recommended to the owner or owner of Toko Ratu Tani Enrekang Regency to pay attention to the quality of each product offered to consumers, such as pesticides and fertilizers, and explain how to use the product properly and correctly, to be able to obtain maximum production, so that consumers will continue to increase demand at Toko Ratu Tani Enrekang Regency.

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