# THE EFFECT OF INCOME ON THE SELECTION OF THE PRICE OF WALL PAINTING MATERIALS IN LOW INCOME COMMUNITY HOME CONSTRUCTION (MBR)

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## ABSTRACT

**KEYWORDS**

Income of selection; (MBR); wall painting

Indonesia is no longer a developing country, but has grown gradually to become a developed country. In fact, according to The Office of the United States Trade Representative (USTR), which released the official release on Saturday 22 February 2020, Indonesia is no longer in the developing country category. The Ministry of Public Works and Public Housing (PUPR) admits that housing development for low-income people (MBR) is currently experiencing a number of obstacles. This study aims to determine the effect of income on the price of wall paint materials. The methodology to be used in this study is a rationalistic quantitative methodology. Quantitative research method is research that is full of nuances of numbers in data collection techniques in the field. Quantitative research has characteristics namely hard sciences, 'brief' and narrow focus, reductionistic, logical and deductive reasoning, knowledge base: causal relationships testing theories, control over variables, instruments, basic elements of analysis: numbers, statistical data analysis, generalization Based on statistical tests using the IBM SPSS application, the results obtained are in the form of a very strong influence between monthly income on the choice of wall paint material prices in the construction of houses for Low Income Communities (MBR).

## INTRODUCTION

Indonesia is no longer a developing country, but has grown gradually to become a developed country (Winarno, 2018). In fact, according to The Office of the United States Trade Representative (USTR), which released the official release on Saturday 22 February 2020, Indonesia is no longer in the developing country category (Patriasari, 2020). Urbanization and population growth mean urban areas in Indonesia lack affordable and quality housing. The shortage is estimated at 820,000 – 920,000 new units per year in urban areas due to the high rate of household formation and migration to urban areas (Sidemen, 2017).

The results of the 2010 population census show that as many as 22% or 13 million households out of 61 million Indonesian households do not have a place to live. While 78% of the population already has a place to live, there are still many whose homes are not suitable for habitation or are located in illegal places (Rostiana, 2014).

The Ministry of Public Works and Public Housing (PUPR) admits that housing development for low-income people (MBR) is currently experiencing a number of obstacles (Winarno, 2018). The Director General of Housing Provision of the Ministry of PUPR said that there were at least 3 obstacles faced by MBR housing developers in urban areas, namely limited land, regional regulations and financing (Widarti, Marfuaf, & Retnosari, 2019).

The third problem is financing. This financing problem can be a very important problem for low-income people (MBR). As is well known, low-income people (MBR) have limitations in financing housing construction due to their monthly income. One of the biggest factors of financing is the price of the materials used in the construction of the house (Hakim, 2016).

Generally, the quality of a material product is directly proportional to the price of the material. So usually to reduce the number of financing from building houses, people choose materials at affordable prices (Agustriana, 2018).

In this study, researchers tried to find the effect of low-income people's income (MBR) on the choice of wall paint prices that they would use for finishing the houses they built (Abdurahman & Rudiarto, 2017).

The purpose of this research is to find a relationship or effect between consumer income on the choice of wall paint material prices in low-income community (MBR) house construction (Indrianingrum, 2016).

The benefit of this research is to be able to find out the relationship or influence between consumer income on the choice of wall paint material prices in the construction of houses for low-income people (MBR) (Sunarti, Yuliastuti, & Indriastjario, 2018).

## RESEARCH METHOD

The methodology to be used in this study is a rationalistic quantitative methodology. Quantitative research method is research that is full of nuances of numbers in data collection techniques in the field. Quantitative research has characteristics namely hard sciences, 'brief' and narrow focus, reductionistic, logical and deductive reasoning, knowledge base: causal relationships testing theories, control over variables, instruments, basic elements of analysis: numbers, statistical data analysis, generalization (Djollong, 2014).

Based on (Kusumo & SITI, 2011) in Quantitative Research Methodology, rationalistic research methodology is a valid science which is an abstraction, simplification or idealization of reality, and is proven to be coherent with its logical system. Some descriptions of the method approach, namely:

a) Data collection methods:
- The data that has been studied are not isolated from their environment, selected by random or purposive sampling
- The survey is directed by a hypothesis/theoretical basis

b) Methods of data analysis:
- The results are brought to the environmental setting, then raised to the population
- After obtaining data directly from the population, then the data is analyzed using a statistical approach using the SPSS application.

c) Arguments in Rationalistic research:
- First, viewed from an ontological point of view, positivism is weak in building a theoretical concept, with the consequence that the theoretical conceptualization of science developed with a methodology based on positivism becomes unclear, not even sequential in building theory, thus the sciences developed with a methodology based on the positivism becomes poorer in its theoretical conceptualization, this causes no new fundamental theories to emerge.
- Second, in terms of axiology, empirical truth (which is sensual) has degraded human dignity. This truth cannot be measured using only our senses, some are

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captured from human meanings and based on the human ability to think and reason which has a broader meaning to the sensual empirical itself.

- Third, in terms of ontology and axiology, there are fundamental differences in the foundations of positivism and rationalism research. But when viewed from an epistemological perspective, there is a fundamental similarity between the two, namely, trying to separate the subject from the object of research. Based on the results of their knowledge, they have similarities, namely reaching nomothetic knowledge, making predictions and making laws.

## RESULTS AND DISCUSSION

The statistical hypothesis in this study is that there is an effect of income on the choice of wall paint material prices in the construction of low-income community houses (MBR) (Taufik & Sriharyati, 2020).

H0: $\rho \leq 0$
H1: $\rho > 0$

## I. DUMMY DATA

The following is a Dummy Data Table from Consumers who buy Wall Paint

**Table 2**
**Research data**

| Consumer Name | Sex | Age | Work | Wall Paint Material Price Options | Income |
|---|---|---|---|---|---|
| A | 1 | 43 | 1 | 55.000 | 1 |
| B | 1 | 55 | 5 | 88.000 | 3 |
| C | 1 | 41 | 1 | 88.000 | 2 |
| D | 1 | 53 | 1 | 88.000 | 3 |
| E | 1 | 48 | 3 | 170.000 | 5 |
| F | 1 | 58 | 7 | 230.000 | 6 |
| G | 1 | 45 | 1 | 55.000 | 0 |
| H | 1 | 65 | 0 | 55.000 | 2 |
| I | 1 | 37 | 5 | 230.000 | 5 |
| J | 1 | 61 | 1 | 55.000 | 0 |
| K | 1 | 35 | 3 | 230.000 | 6 |
| L | 1 | 67 | 1 | 88.000 | 2 |
| M | 1 | 48 | 2 | 88.000 | 2 |
| N | 1 | 51 | 7 | 230.000 | 6 |
| O | 1 | 35 | 4 | 230.000 | 5 |
| P | 2 | 48 | 3 | 170.000 | 4 |
| Q | 2 | 42 | 2 | 88.000 | 2 |
| R | 2 | 46 | 6 | 230.000 | 6 |
| S | 2 | 39 | 0 | 55.000 | 0 |
| T | 2 | 34 | 6 | 170.000 | 4 |
| U | 2 | 36 | 1 | 170.000 | 4 |

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| | | | | | |
|---|---|---|---|---|---|
| V | 2 | 30 | 5 | 230.000 | 6 |
| W | 2 | 41 | 7 | 230.000 | 5 |
| X | 2 | 52 | 3 | 170.000 | 4 |
| Y | 2 | 42 | 7 | 55.000 | 2 |
| Z | 2 | 39 | 5 | 55.000 | 1 |
| AA | 2 | 32 | 5 | 170.000 | 3 |
| BB | 2 | 40 | 2 | 55.000 | 1 |
| CC | 2 | 33 | 5 | 230.000 | 6 |
| DD | 2 | 58 | 3 | 170.000 | 5 |

**Source: Researcher (2022)**

**Table 3**
**Research Description**
**Wall Paint Consumer Data Variable**

| Variable | code | Information |
|---|---|---|
| Gender | 0 | Man |
| | 1 | Woman |
| Work | 0 | Not Working |
| | 1 | Other Jobs |
| | 2 | Honorary |
| | 3 | civil servant |
| | 4 | POLRI/TNI |
| | 5 | Private sector employee |
| | 6 | Health workers |
| | 7 | Self-employed |
| Family Income per Month | 0 | < 1,000,000 |
| | 1 | 1,000,000 – 1,500,000 |
| | 2 | 1,500,000 – 2,000,000 |
| | 3 | 2,000,000 –2,500,000 |
| | 4 | 2,500,000 – 3,000,000 |
| | 5 | 3,000,000 – 3,500,000 |
| | 6 | 3,500,000 – 4,000,000 |

**Source: Researcher (2022)**

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## II. CENTRAL TENDER DATA FROM DUMMY DATA

Based on the results of the dummy data collection above, the researcher conducted a statistical analysis using the IBM SPSS application. The steps taken by researchers in analyzing data using the SPSS application are as follows:

1. Open the IBM SPSS application, then enter the results of the initial data based on the results of the questionnaire and interviews provided by the consumer in the Data View sheet.



**Image 1**
**DataView IBM SPSS**
**Source: Researcher (2022)**

2. Enter variables and parameters based on the results of questionnaires and interviews provided by consumers in the Variable View sheet.



**Figure 2**
**Variable View IBM SPSS**
**Source: Researcher (2022)**

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From the image data in the IBM SPSS application, the variable is income per month and the parameter is the choice of wall paint material prices.

## III. PROCESS ANALYSIS

The analysis process used in this study uses associative analysis, which is looking for relationships from the interval ratio data form. Thus the tests that need to be carried out are Partial Correlation and Regression to see the results of the Curve Estimation.

**Partial Correlation Test**

Partial correlation analysis (Partial Correlation) is used to determine the relationship between two variables where other variables that are considered influential are controlled or fixed (as control variables). The correlation value (r) ranges from 1 to -1, the value closer to 1 or -1 means the relationship between the two variables is getting stronger, conversely a value close to 0 means the relationship between the two variables is getting weaker. Positive values indicate a unidirectional relationship (X increases, Y increases) and negative values indicate an inverse relationship (X increases, Y decreases). The data used is usually an interval or ratio scale. (Consultant, n.d.)

The following are the steps used to perform the Partial Correlation test:

1. Select Menu Analyze, then select Corralate, and finally select Partial.
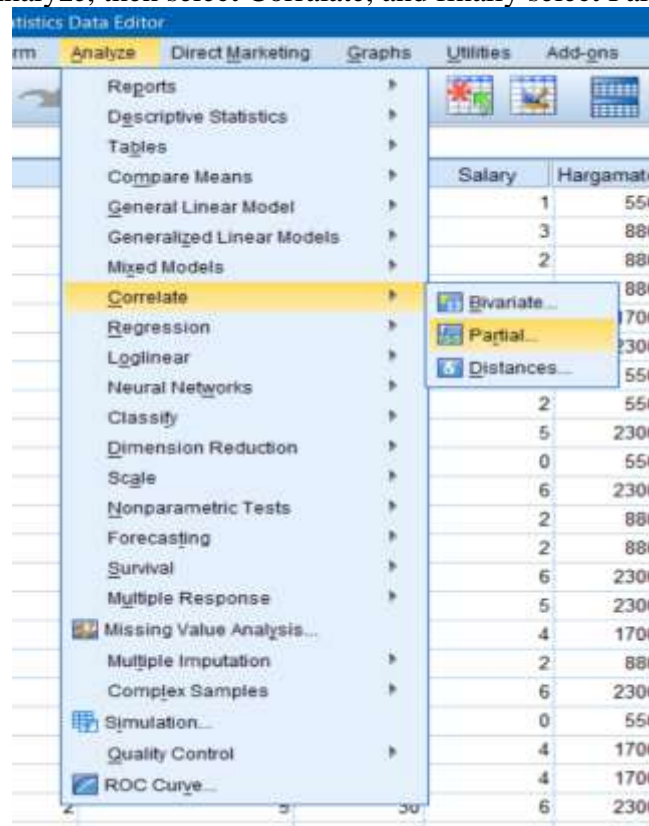


**Figure 3**
**Partial Correlation Test**
**Source: Researcher (2022)**

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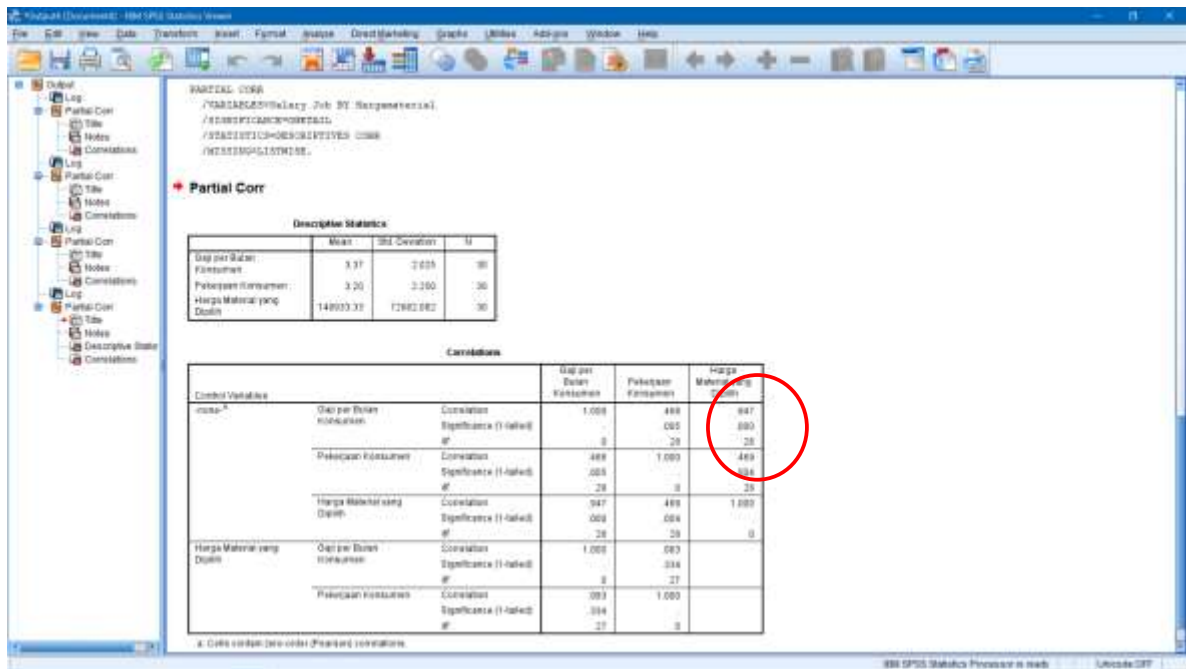2. Then the results will come out as follows:



**Figure 4**
**Partial Correlation Test Results**
**Source: Researcher (2022)**

Based on Figure 4, it can be said that the correlation between the variable in the form of income per month and the parameter in the form of the price choice of wall paint material is 0.947.

According to (Sugiyono, 2011) the guidelines for providing an interpretation of the correlation coefficient are as follows:

0,00 - 0,199 = very low
0,20 - 0,399 = Low
0,40 - 0,599 = currently
0,60 - 0,799 = strong
0,80 - 1,000 = very strong

So, this indicates that the relationship between the two variables is very strong or it can be said that the two variables influence each other.

**Regression Test**
The following are the steps used to carry out the Regression test:
1. Select the Analyze Menu, then select Regression, and finally select Curve Estimation.
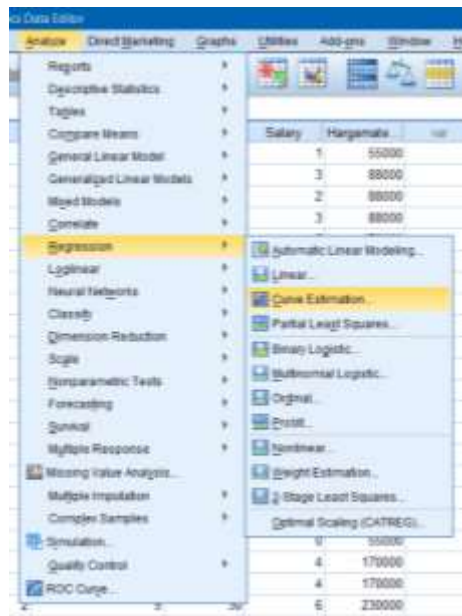
**Figure 5**
**Regression Test**
**Source: Researcher (2022)**

2. 2. Next, the Curve Estimation Window will appear. Enter Dependent and Variable data. Then check the options as shown in the image below:
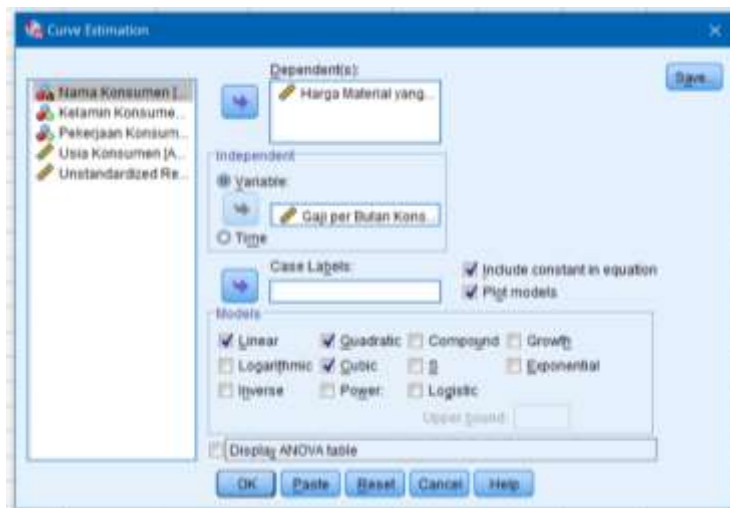


**Figure 6**
**Window of Curve Estimation**
**Source: Researcher (2022)**

3. Then the results will come out as follows:



**Figure 7**
**Results from Curve Fit**
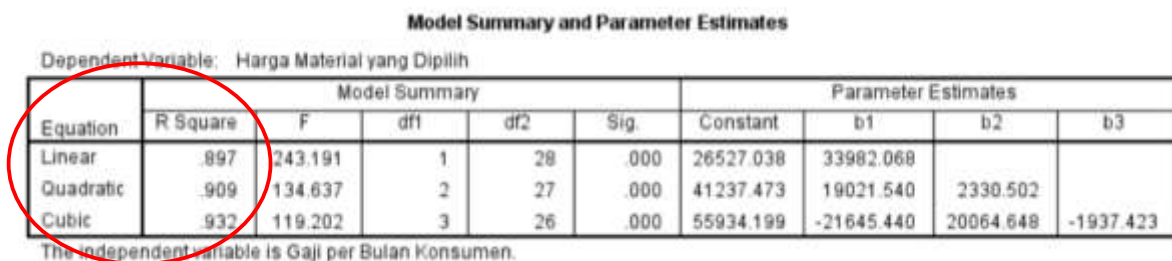**Source: Researcher (2022)**



**Figure 8**
**Model Summary and Parameter Estimates**
**Source: Researcher (2022)**

The results of the Regression Test are shown in Figure 12. It can be seen that the R value is large, in Linear the R value is 0.897, Quadratic 0.909 and Cubic 0.932. Of the three values above, the highest R value is the Cubic equation of 0.932 or 93.2%, then the

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Quadratic equation R value is 0.909 or 90.9% and the lowest is the Linear equation R value of 0.897 or 89.7%.

Based on the value above in the Curve image, the effect of income or monthly salary on the price of the chosen wall paint material is as follows:
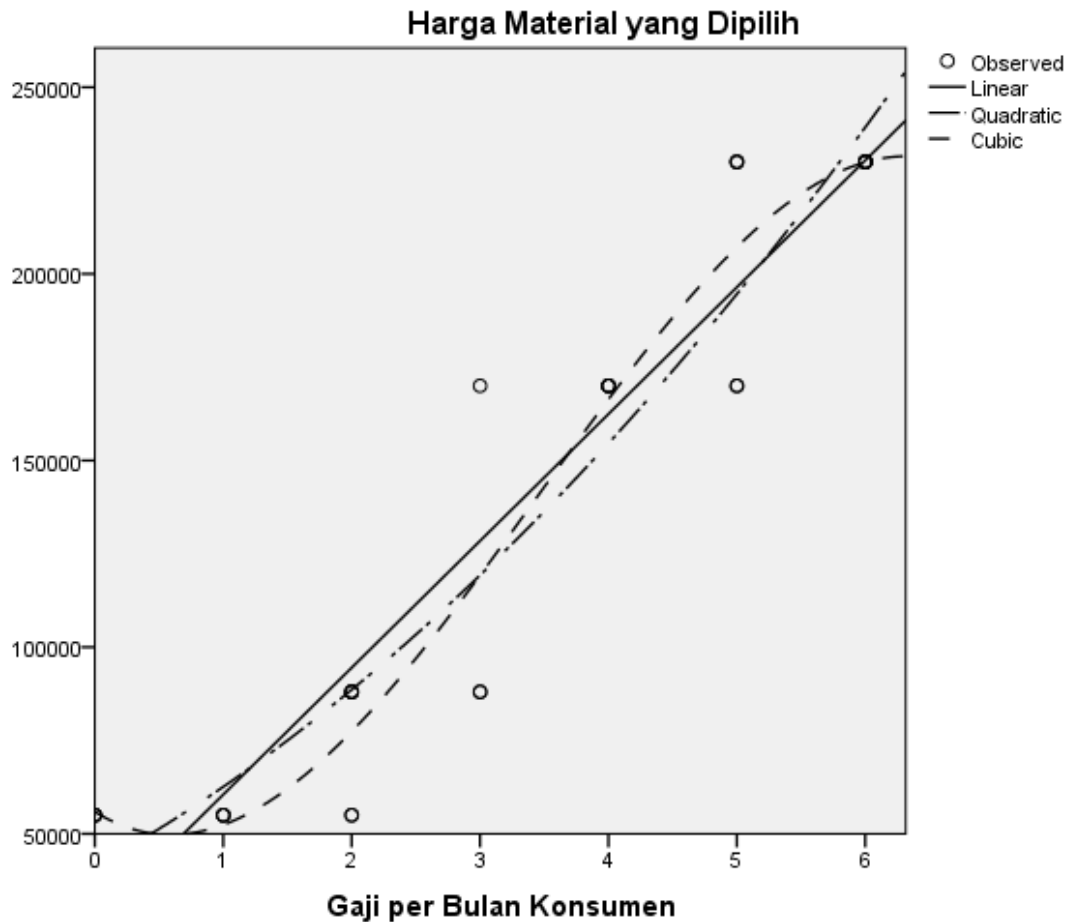


**Figure 9**
**The Influence Curve of Monthly Income or Salary on the Price of the Selected Wall Paint Material**
**Source: Researcher (2022)**

## CONCLUSION

Based on statistical tests using the IBM SPSS application, the results obtained are in the form of a very strong influence between monthly income on the choice of wall paint material prices in the construction of houses for Low Income Communities (MBR). The relationship between monthly income and the choice of wall paint material prices in the construction of Low-Income Communities (MBR) houses is 94.7% and it can be said that between monthly income and the choice of wall paint material prices are mutually influential.

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