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The Impact of Land Size, Selling Price, and Production Expenses on Sales Volume in Red Brick Home Industries within Klangenan District: Lessons for Business Education

Lilis Indiyanis✉, Rinni Indriyani[2], Fitriya Sari[3]
[1] *Fakultas Ekonomi dan Bisnis, Universitas Muhammadiyah Cirebon*
[2] *Fakultas Ekonomi dan Bisnis, Universitas Muhammadiyah Cirebon*
[3] *Fakultas Ekonomi dan Bisnis, Universitas Muhammadiyah Cirebon*
✉ email: lilisindiyan31@gmail.com

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ABSTRACT

This research examined the influence of land area, selling price, and production costs on the sales volume of red brick home industries in Klangenan District. Using multiple linear regression analysis with data processed through SPSS 26, the study evaluates both partial and simultaneous effects of the independent variables. The results indicate that simultaneously, land area, selling price, and production costs significantly affect sales volume. Partially, land area has a positive and significant influence, while selling price demonstrates a negative and significant influence on sales volume. In contrast, production costs do not show a significant effect. The coefficient of determination (R^2) reveals that the three independent variables collectively explain 5.3% of the variation in sales volume, with the remaining 94.7% influenced by factors outside the model, such as product quality, market demand, competition, and other external conditions. These findings suggest that land utilization and pricing strategies are critical for sustaining competitiveness, while cost efficiency alone does not directly drive sales performance.

Keywords: *Land Area; Selling Price; Production Costs; Sales Volume; Red Brick Industry; Klangenan*

INTRODUCTION

Red brick is one of the traditional building materials that has been widely used in construction across Indonesia. This material is produced from clay that is molded and fired at high temperatures until it acquires its distinctive reddish color. In construction practice, red brick is commonly used as the primary material for residential wall construction in Indonesian households. A study conducted by Universitas Bangka Belitung revealed that 45% of households prefer red brick for wall materials, compared to 47% who choose concrete blocks and 8% who choose lightweight bricks. This indicates that red brick remains a primary choice in Indonesian housing construction (Moh. Nanang Setiawan, 2023). The production of red bricks also presents a promising business opportunity. Beyond its historical and cultural value, the red brick industry

offers significant economic potential, particularly in relation to housing development and local economic empowerment.

The red brick industry in West Java has developed rapidly since the colonial era, initially relying on traditional production methods using clay fired in open kilns (Wikipedia.com, 2025). Over time, demand for red bricks has increased in line with the rapid growth of the construction sector, particularly in urban areas. During the 1990s and 2000s, several regions—such as Cirebon, Majalengka, Bandung, and Subang emerged as major production centers with significant output capacity. Although many producers still rely on traditional methods, some have adopted modern technologies such as press machines to improve production efficiency. However, the industry faces serious challenges from competition with lightweight bricks (hebel), which are more practical, although more expensive. Several factors influence red brick production, including capital intensity, labor requirements, raw material availability, and the demand for patience and precision to ensure smoothness and durability—qualities that help maintain consumer loyalty (Wulan Ramadhani, 2024).

Other challenges include the limited availability of high-quality clay, land shortages, and fluctuating fuel prices. On the other hand, the red brick industry in West Java continues to survive due to strong demand in rural areas, where red brick remains preferred for its durability and affordability. Local governments also support the industry by providing training and access to micro-financing, although challenges persist regarding environmental regulations related to emissions and production impacts. Overall, despite these obstacles, the red brick industry in West Java holds promising prospects, especially with innovations in eco-friendly products and the adoption of more efficient technologies to strengthen competitiveness (Wulan Ramadhani, 2024).

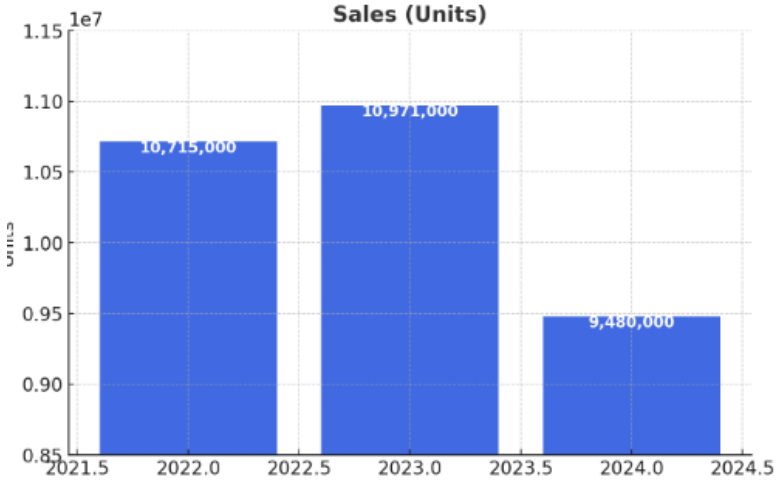

Figure I-1. Sales Growth (in Units) of Red Brick Home Industries in Klangenan District, 2022–2023
Source: Author's Processing

Based on observations conducted on 50 home industry red brick businesses in Klangenan District, it was found that in 2022 the sales volume reached 10,715,000 units, then increased in 2023 to 10,917,000 units, before experiencing a significant decline in

2024 to 9,480,000 units. According to the survey results, the red brick industry in Klangenan began to show signs of recovery in 2022 after being affected by the COVID-19 pandemic. Demand increased in line with the resumption of construction projects and housing development. However, industry players continued to face challenges such as rising fuel prices and logistics costs, which affected their profit margins.

In 2023, the red brick industry in Klangenan District demonstrated stability in both production and sales. Artisans, particularly in Danawinangun Village, continued to maintain traditional production methods that have been passed down since the 1980s. Entering 2024, however, the industry faced growing competition from alternative building materials such as lightweight bricks (hebel) as well as shifting consumer preferences. Despite these challenges, the artisans' commitment to preserving product quality through traditional methods remained a competitive advantage.

According to S. Rahmawati (2022), the sales of red bricks are the result of an interaction between various factors, both from market demand and production conditions in the field. Three main factors that strongly influence sales volume are land area, selling price, and production costs. These three are interrelated and mutually affect one another. Optimal sales can only be achieved if producers are able to manage land efficiently, set prices that align with market purchasing power, and control production costs within reasonable limits (Arifin, 2022). In the context of small-scale or home industry production such as in Klangenan District, management of these factors is crucial for business sustainability and for improving artisans' welfare.

Land area significantly influences production capacity in the red brick industry. The larger the land owned by the producer, the greater the number of bricks that can be produced simultaneously (Pradnyawati & Cipta, 2021). Land is needed for clay processing, molding, drying, and burning. If land is limited, production scale is also restricted, which directly impacts the number of bricks that can be sold. In other words, land area is one of the key determinants of production capacity that influences sales volume.

Pradnyawati & Cipta (2021) define land area as the total land used by a business or individual for production activities. In the red brick industry, this includes land for clay processing, molding, drying, burning, and storing finished products. A larger land area allows greater production capacity. Some of the key impacts of land area on sales include: Greater production capacity – enabling businesses to meet higher market demand. Operational efficiency – as larger land permits better workflow and reduced production bottlenecks. Stock storage ability – allowing businesses to store more products to ensure continuity of sales, especially during demand spikes or production disruptions.

Revenue theory is a branch of economics that studies how income is generated and utilized by individuals and businesses. A company's revenue comes from the sale of products or services produced. According to Kasmir (2021), revenue is the total income earned by a company from sales activities, whether in cash or credit, during a certain period. Kasmir further explains that revenue is the main source of company income and

a key factor in measuring operational success and profitability. A simple formula for revenue according to Kasmir (2021), revenue can be expressed in a simple formula:

$$\text{Revenue} = \text{Selling Price (P)} \times \text{Quantity Sold (Q)}$$

This formula shows that a company's revenue is determined by two key components: the unit selling price and the number of products sold. In the context of red brick home industries, revenue will increase if either the selling price rises (assuming demand remains stable) or if production and sales volumes increase (with prices held constant). Conversely, if production declines or selling prices are not competitive with alternative products, revenue will decrease.

From a business education perspective, this formula underscores the importance of strategic decision-making in pricing, cost management, and production efficiency. Small-scale producers in Klangenan must carefully balance these factors to sustain profitability while remaining competitive against alternative building materials such as lightweight bricks.

In the context of the red brick industry, the relationship between land area and sales is very close. The larger the land owned by the producer, the greater the production capacity of red bricks that can be achieved. With increased production capacity, businesses are able to meet higher market demand and reach customers on a wider scale. For example, if a producer only has a land area of 500 m², they may only be able to produce 10,000 bricks per month. However, if the land area increases to 1,000 m², production capacity can potentially double to 20,000 bricks. This increase in production directly enhances sales volume, which in turn leads to higher company revenue.

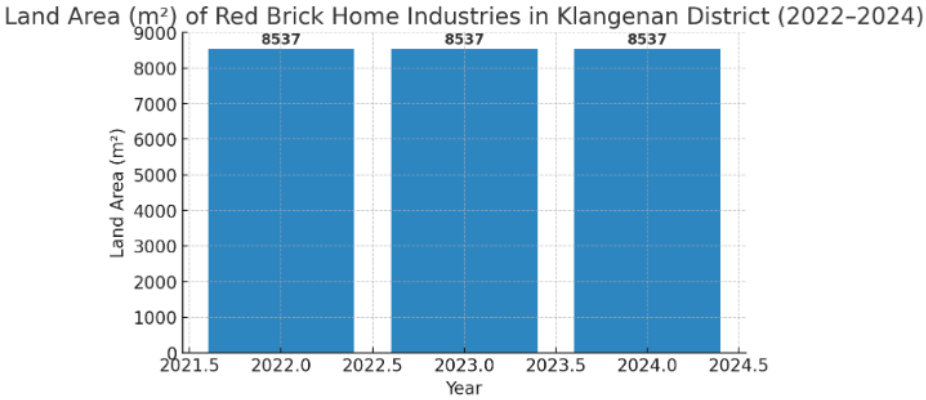

Figure I-2. Land Area Data of Red Brick Home Industries in Klangenan District, 2022–2023

Source: Processed Data, 2024

Based on observations of 50 red brick home industry units in Klangenan District, it was found that over the last three years (2022–2024), there has been no increase in land area. The total land area of red brick home industries in Klangenan has remained constant at 8,537 m². This condition is primarily due to the fact that most artisans only utilize land around their homes, with limited access to additional land for expansion.

Siregar (2019) and Wahyuni & Prasetyo (2021) argue that larger land areas enable greater production intensification, which directly impacts income growth. The wider the production area, the higher the production volume and potential revenue. Similarly, Rahmawati (2022) emphasized that business scale, including land area, has a positive effect on both productivity and sales.

However, these findings contrast with studies by Fadli (2020) and Nugroho, Santoso, & Lazuardi (2021), who found that product quality and marketing strategies play a more dominant role than land area in influencing sales volume. According to their research, land area alone does not significantly contribute to higher sales without the support of technology and skilled human resources. This view is further reinforced by Lestari & Aminah (2023), who highlighted that distribution and promotion factors are more influential in increasing sales compared to physical factors such as land size.

Selling price is a highly sensitive factor in relation to market demand. If the price is set too high, consumers—particularly small-scale contractors or individual buyers—tend to switch to alternatives such as lightweight bricks or even second-hand building materials. Conversely, if the price is too low, producers may suffer losses, especially when production costs cannot be covered. Thus, sales performance largely depends on the producer's ability to establish a price that is both competitive and profitable. A balanced pricing strategy encourages stability and supports sales growth (Noni Rozaini & Sarma Juliana Silaban, 2023).

According to Noni Rozaini and Sarma Juliana Silaban (2023), selling price represents the monetary value determined by producers or sellers for a product or service offered to consumers. In the context of the red brick industry, the selling price reflects the economic value of the product and serves as a key indicator of market competitiveness. A competitive price can attract buyers, while an excessively high price may discourage demand. Therefore, pricing strategy is a crucial determinant of business success, as consumer purchasing decisions are strongly influenced by price. When prices align with consumer perceptions of value, sales volume tends to increase.

The total revenue theory states that a company's revenue is obtained from the multiplication of price and quantity sold. This implies that changes in selling price directly affect both revenue and sales volume. Pricing decisions influence consumer purchasing behavior, which ultimately impacts total sales. For instance, if the price of red bricks increases excessively, buyers may reduce their purchases. On the other hand, if prices are set too low, producers might face financial losses even though sales volume rises. The following figure presents the development of selling price (per 1,000 units) of red brick home industries in Klangenan District for the period 2022–2024.

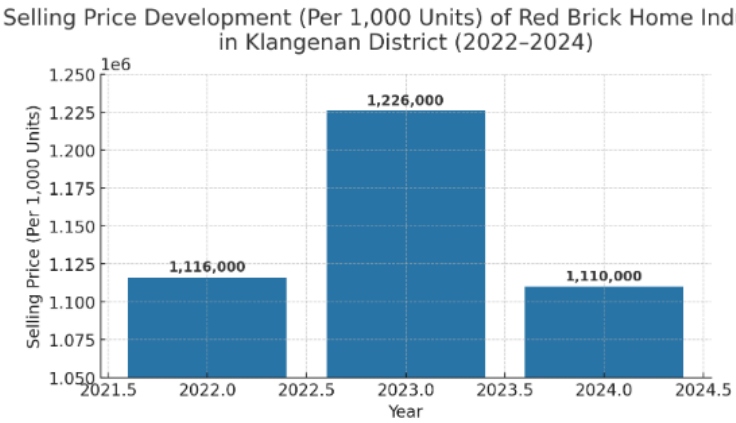

Figure I-3. Selling Price Development (Per 1,000 Units) of Red Brick Home Industries in Klangenan District, 2022–2024

Source: Processed Data, 2024

Based on observations conducted on 50 units of Red Brick Home Industries in Klangenan District, it was found that over the past three years the selling price of red bricks has experienced fluctuations influenced by production costs, market demand, and the availability of raw materials. In 2022, the average price per 1,000 bricks was around Rp1,116,000. In 2023, the price rose to approximately Rp1,226,000 per 1,000 bricks, following an increase in demand and higher fuel costs for firing. However, in 2024, the selling price decreased to Rp1,110,000 per 1,000 bricks, reflecting a decline from the previous year. This was mainly due to prolonged rainy seasons in 2024 and weaker demand, which compelled producers to lower prices to sell their production quickly.

Nugroho (2020) highlighted that appropriate and competitive pricing significantly increases sales volume. Prices aligned with product quality enhance consumer trust and have a positive impact on sales. Similarly, Sari and Wibowo (2018) emphasized that competitive pricing can expand market segments and increase sales, even in competition with substitute products. Lower prices than competitors serve as an effective strategy in price-sensitive markets. Fitriana (2021) further supported this view, stating that selling prices significantly affect sales volume, particularly in urban areas where many product alternatives exist. In such markets, consumers often make purchase decisions based on price when quality is perceived as equal.

Conversely, Yuliana (2019) argued that selling prices do not significantly influence sales, as consumer loyalty and product quality play a more dominant role. In certain sectors, buyers prioritize quality over price. This perspective was also supported by Prasetyo and Andini (2020), who found no significant relationship between selling price and sales, as consumer perceptions were more influenced by product availability. Instead, distribution and promotion factors exerted a stronger influence than price. Rahmawati (2022), in her empirical study of Red Brick Home Industries in Central Java, also concluded that selling prices do not directly affect sales but are mediated by marketing networks and seasonal production cycles. Sales are more closely linked to production factors and social relationships among business actors.

Production costs represent the total expenditure incurred by a company or entrepreneur to produce goods or services. Components of production costs include raw materials, direct labor, equipment maintenance, and energy or fuel used during production. In the context of red brick industries, production costs cover expenses such as clay procurement, brick molding, drying, firing, and distribution to retailers or end consumers.

According to Mankiw (2020), production costs play a crucial role in determining selling prices since higher costs necessitate higher prices in order to achieve the desired profit margin. Production costs also illustrate the relationship between inputs and outputs (the quantity of goods produced). In Principles of Economics, Mankiw (2020) explains that production is the process of transforming inputs such as labor, capital, and land into outputs in the form of goods and services. From a revenue theory perspective, production costs influence sales by shaping a company's ability to set competitive prices. When production costs rise and producers are forced to increase prices, consumer purchasing power may decline, especially if cheaper substitutes are available. Consequently, sales volume may decrease if the market perceives prices as too high. On the other hand, when companies succeed in reducing production costs through operational efficiency or technological innovation, they gain more flexibility in pricing strategies, making their products more competitive and potentially boosting sales.

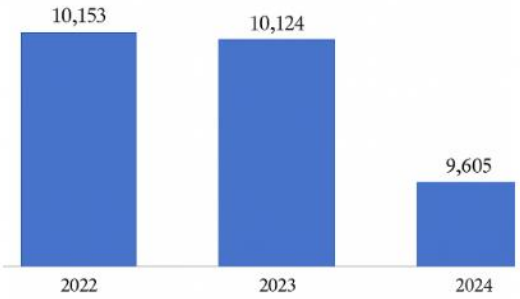

Figure I-4. Production Costs (in Million Rupiah) of Red Brick Home Industries in Klangenan District, 2022–2024

Source: Author's Data Processing

Based on observations conducted on 50 red brick home industry units in Klangenan District, it was found that over the last three years, production costs have shown a declining trend. This decline is suspected to be due to the rising cost of the main raw material, clay, which led many business units to seek alternatives such as using substitute soil (tanah tambangan) that is more affordable. In addition, the use of simple tools and the increasing experience of red brick craftsmen in Klangenan District also supported greater efficiency in the production process.

However, despite the decline in production costs, several challenges remain, such as limited access to government support in training and marketing, which could hinder competitiveness and business sustainability in the long term. Prasetya (2019), in his study of the traditional roof tile industry, found that higher production costs tend to reduce sales volume. This occurs because increased costs can raise selling prices, ultimately

reducing consumer purchasing power. Similarly, Lestari & Hidayat (2021) explain that high production costs can weaken competitiveness, especially for SMEs. When production costs rise, selling prices increase, leading to decreased demand. Mahardika (2020) also found that uncontrolled production costs may reduce the number of goods sold due to the inability to maintain competitive pricing.

In contrast, other researchers have reached different conclusions. Susanto (2018) revealed that despite rising production costs, sales remained stable, possibly due to other factors such as customer loyalty or consistently high product quality. Arifin (2022) concluded that production costs are not statistically significant to sales, suggesting that other factors (e.g., marketing or product innovation) may play a greater role in household industry sales performance. Meanwhile, N. Putri (2021) also observed that production costs are not the main factor influencing changes in sales among small enterprises. This may occur when small businesses have effective marketing strategies or other competitive advantages that play a more dominant role in driving sales. Based on the above background, the author is interested in conducting a study entitled:
"The Influence of Land Area, Selling Price, and Production Costs on the Sales Volume of Red Brick Home Industries in Klangenan District."

METHOD

In this study, the researcher will present the data obtained from field research conducted on the Red Brick Home Industries in Klangenan District.

This research adopts a quantitative approach. Quantitative research is a type of study in which data are collected and structured, often through questionnaires, to obtain information or to compare findings with other data sets. Furthermore, this study is descriptive in nature, as it aims to provide a more detailed explanation of a particular phenomenon (Sari, 2024).

Table 3.1 Operational Definition of Variables

Variable	Indicator	Measurement	Scale
X1. Land Area	Total land used for production (molding, drying, storing)	m² of production land	Ratio
X2. Selling Price	Average selling price per year	IDR per 1,000 bricks	Ratio
X3. Production Costs	a) Raw materials (clay, husks, water) b) Labor wages c) Firing costs (fuel, wood) d) Other operational costs (tools, transport)	IDR per year	Ratio
Y. Sales Volume	Total bricks sold per year	Number of units sold (1,000 bricks)	Ratio

Source: Author's Compilation

Population is defined as the collection of all elements in the form of events, objects, or individuals that share similar characteristics and become the focus of a researcher, as it represents the universe of study (Ferdinand). According to Sugiyono, population is the generalization area consisting of objects or subjects with certain quantities and

characteristics determined by the researcher to be studied and from which conclusions are drawn (Sholihah, 2020). The population in this study is all Red Brick Home Industries in Klangenan District, Cirebon Regency. According to Ghozali (2018), a research sample represents the entire population with the aim of obtaining accurate information. The sample must be selected using an appropriate sampling technique and meet specific criteria determined by the researcher. This study used Accidental Sampling. To determine the sample size, the Lemeshow formula was applied:

$$n = \frac{z^2 \, p \, (1 - p)}{d^2}$$

Where:
n = Sample size
z = Z-score at 95% confidence level
p = Maximum estimation = 50% (0.5)
d = Margin of error = 10% (0.1)

$$n = \frac{1.96^2 \times 0.5(1 - 0.5)}{0.1^2}$$

$$n = \frac{3.8416 \times 0.25}{01}$$

$$n = 96.04 \approx 100$$

Thus, the number of samples used in this study is 100 units of Red Brick Home Industries in Klangenan District, Cirebon Regency. "The research was carried out over a five-month period, from April to August 2025. Data were collected through direct field observations and semi-structured interviews at Red Brick Home Industries in Klangenan District, Cirebon Regency. This approach allowed the researcher to gather detailed information on land area, selling price, production costs, and sales.

Data collection was carried out through direct field observations and review of existing company records, complemented by semi-structured interviews. This method enabled the researcher to obtain in-depth information on land area, selling price, production costs, and sales of Red Brick Home Industries in Klangenan District, Cirebon Regency

Multiple linear regression analysis was used to determine the effect of independent variables on the dependent variable by estimating the value of Y, with the following statistical formula:

$$\mathbf{Y = a + b_1X_1 + b_2X_2 + b_2X_3|}$$

Where:

- X1X_1X1 = Land Area
- X2X_2X2 = Selling Price
- X3X_3X3 = Production Cost
- YYY = Sales Volume

- aaa = Constant
- b1,b2,b3b_1, b_2, b_3b1,b2,b3 = Regression coefficients for each independent variable

t-test is used to examine the significance of each independent variable's effect on the dependent variable. The calculated t-value :

$$\text{Reject } H_0 \text{ if } t_{count} > t_{table}.$$

Coefficient of Determination (R^2): This value indicates the proportion of the dependent variable explained by the independent variables. The closer R^2 is to 1, the better the regression model fits the data, and vice versa.

FINDINGS AND DISCUSSION

Descriptive Statistics Test

The variables used in this study include land area, selling price, production costs, and sales volume. The descriptive statistical results are presented in the table below:

Table IV-1. Descriptive Statistics Results

Variable	N	Minimum	Maximum	Mean	Std. Deviation
Land Area (m²)	300	120	280	171.94	23.026
Selling Price (million)	300	1.0	1.3	1.151	0.0672
Production Costs (million Rp)	300	110	195	157.69	21.262
Sales Volume (units)	300	100,000	310,000	213,910	37,776

Source: SPSS 26 Data Processing

Based on the results in Table IV-1, the number of respondents analyzed was 300 (N = 300). The land area variable shows a minimum value of 120 m² and a maximum of 280 m², with an average (mean) of 171.94 m² and a standard deviation of 23.026, indicating considerable variation in land ownership among red brick craftsmen. The selling price variable ranges from Rp1.0 million to Rp1.3 million, with an average of Rp1.151 million and a standard deviation of 0.0672, suggesting that prices are relatively uniform across producers with low fluctuation.

Meanwhile, the production cost variable ranges between Rp110 million and Rp195 million, with an average of Rp157.69 million and a standard deviation of 21.262, indicating significant differences in production expenses among craftsmen. The sales volume variable ranges from 100,000 to 310,000 units, with an average of 213,910 units and a standard deviation of 37,776, showing wide variations in sales volume among red brick craftsmen in Klangenan District.

Classical Assumption Test

Normality Test

The normality test was conducted using the One-Sample Kolmogorov-Smirnov Test. The critical value for normality is determined by the criterion: if Asymp. Sig. (2-tailed)

> α (5% = 0.05), then the data is normally distributed. The test results are presented in Table IV-2:

Table IV-2. Normality Test Results

Test	Value	Interpretation
Asymp. Sig. (2-tailed)	0.200	Normal

Source: SPSS 26 Data Processing

Based on Table IV-2, the significance value obtained is 0.200, which exceeds the established significance level (α = 0.05). Therefore, it can be concluded that the data from all variables are normally distributed. Since the normality assumption is fulfilled, the data is considered suitable for further analysis using multiple linear regression.

Multicollinearity Test

The multicollinearity test was conducted to determine whether there is a correlation among the independent variables (X). This test was performed by examining the Variance Inflation Factor (VIF) values of each independent variable (X) in relation to the dependent variable (Y). If the VIF value does not exceed 10, it indicates that there is no multicollinearity in the model. The test results are presented in Table IV-3:

Table IV-3. Multicollinearity Test Results

Variable	Tolerance	VIF	Description
Land Area (X1)	0,992	1,008	No multicollinearity
Selling Price (X2)	0,993	1,007	No multicollinearity
Production Cost (X3)	0,992	1,008	No multicollinearity

Source: Processed SPSS 26 Data

Based on the results shown in Table IV-3, all independent variables (X1, X2, and X3) have VIF values below 10 and tolerance values above 0.10, indicating that the regression model is free from multicollinearity.

Heteroskedasticity Test

The heteroskedasticity test aims to examine whether in the regression model there is inequality of variance in the residuals across observations. In this study, the scatterplot residual method was used by regressing land area, selling price, and production cost variables against the absolute residual values. If the significance value is greater than α (5%), heteroskedasticity is not present; conversely, if it is smaller than α (5%), heteroskedasticity occurs.

Table IV-4. Heteroskedasticity Test Results

Variable	Sig. Value	Description
Land Area	0.300	No Heteroskedasticity
Selling Price	0.403	No Heteroskedasticity
Production Cost	0.305	No Heteroskedasticity

Source: Processed SPSS 26 Data

Based on Table IV-4, the results show that all independent variables have significance values above 0.05. This indicates that there are no symptoms of heteroskedasticity in the regression model used in this study. Thus, the regression model meets one of the classical assumptions required for multiple linear regression analysis.

Hypothesis Testing

Multiple Linear Regression Analysis

Multiple linear regression analysis was used to determine the effect of the independent variables—land area, selling price, and production costs—on the dependent variable, sales volume. The results are presented in Table IV-5:

Table IV-5. Multiple Linear Regression Analysis Results

Model	Unstandardized Coefficients	Standardized Coefficients	t	Sig.	Collinearity Statistics
	B	Std. Error	Beta		
(Constant)	52.130	41.224		1.265	.207
Land Area	0.164	0.093	0.100	1.757	.080
Selling Price	111.156	31.918	0.198	3.482	.001
Production Cost	0.036	0.101	0.020	0.358	.721

[a]. Dependent Variable: Sales Volume

Source: Processed SPSS 26 Data

Land Area (X1): The coefficient (0.164) with t = 1.757 and Sig. = 0.080 indicates a positive but statistically insignificant effect ($p > 0.05$). Hypothesis H_1 is rejected. Selling Price (X2): The coefficient (111.156) with t = 3.482 and Sig. = 0.001 indicates a significant positive effect ($p < 0.05$). Hypothesis H_2 is accepted. Production Cost (X3): The coefficient (0.036) with t = 0.358 and Sig. = 0.721 indicates a positive but insignificant effect ($p > 0.05$). Hypothesis H_3 is rejected**.**

Simultaneous Test (F-test)

The F-test assesses whether all independent variables collectively influence the dependent variable. The criterion is F-count > F-table and significance < α (0.05).

Table IV-7. F-Test Results

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	22417.630	3	7472.543	5.471	.001
Residual	404263.757	296	1365.756		
Total	426681.387	299			

a. Dependent Variable: Sales Volume

b. Predictors: (Constant), Production Cost, Selling Price, Land Area

Source: Processed SPSS 26 Data

The results show F = 5.471 with Sig. = 0.001, which is less than 0.05. This means that land area, selling price, and production costs jointly have a significant effect on sales volume. Hypothesis H_4 is therefore accepted.

Coefficient of Determination (R^2)

The coefficient of determination (R^2) measures how well the model explains variation in the dependent variable. The value ranges from 0 to 1, with values closer to 1 indicating stronger explanatory power. The adjusted R^2 is especially important for assessing the explanatory strength of multiple regression models. Results are presented in Table IV-8:

Table IV-8. Coefficient of Determination (R^2) Results

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.229a	0.053	0.043	36.956

a. Predictors: (Constant), Production Cost, Selling Price, Land Area
Source: Processed SPSS 26 Data

Based on the results of the multiple linear regression analysis, the coefficient of determination (R^2) is 0.053 or 5.3%. This indicates that the independent variables—land area, selling price, and production cost—together explain only 5.3% of the variation in sales volume of red brick home industries in Klangenan District. The remaining 94.7% is influenced by other factors outside the research model, such as product quality, market demand, business competition, and external factors not examined in this study.

This study aimed to examine the influence of land area, selling price, and production cost on sales volume of red brick home industries in Klangenan District. The results of multiple linear regression analysis indicate that, simultaneously, the three independent variables significantly affect the dependent variable, namely sales volume. However, partially, land area and selling price have a significant effect, while production cost does not.

The analysis shows that land area has a positive and significant effect on sales volume. The larger the land area owned by producers, the greater the production capacity that can be achieved, leading to higher sales volume. This finding is consistent with income theory, which states that production capacity directly influences income, as it determines the amount of output that can be sold. It also aligns with the study of Suyono et al. (2022), who found that land area had a positive and significant impact on income in freshwater fish farming businesses, highlighting its role in improving efficiency and productivity.

In contrast, selling price has a negative and significant effect on sales volume. This means that as selling prices increase, sales volume tends to decrease. The result is in line with the theory of demand elasticity, which explains that an increase in the price of goods with many substitutes—such as red bricks competing with lightweight concrete blocks—leads to a sharp decline in demand. This is further supported by Sari (2024), who found that price significantly affects sales levels, emphasizing the importance of competitive pricing as a strategy to maintain consumer demand and business sustainability.

Meanwhile, production cost is found to have no significant effect on sales volume. This indicates that cost efficiency has not yet translated into an effective sales strategy, or that cost is not the main determinant of sales performance. In microeconomic theory, production costs affect selling prices and eventually sales; however, in this context, other moderating factors such as customer loyalty, social relationships, or product quality may play a more dominant role. This finding is consistent with Susanto (2018), who reported that increases in production costs did not significantly affect sales volume, suggesting the influence of external factors such as consumer trust, marketing, or social networks.

CONCLUSION

This study concludes that land area, selling price, and production cost simultaneously have a significant effect on the sales volume of red brick home industries in Klangenan District. Partially, land area shows a positive and significant influence, meaning that the larger the land owned by business owners, the greater the production capacity and the higher the sales volume achieved. Selling price, on the other hand, has a negative and significant effect, which indicates that an increase in price tends to reduce sales volume due to consumer sensitivity and the presence of substitute products such as lightweight bricks. Meanwhile, production cost does not have a significant effect on sales volume, implying that efficiency in cost management is not the main factor determining sales performance in this sector. Overall, these findings suggest that the success of red brick home industries in Klangenan District depends more on optimizing land utilization and implementing competitive pricing strategies rather than relying solely on production cost efficiency.

Based on the findings of this study, several recommendations can be made. First, business owners are advised to optimize the use of production land to increase capacity and sales volume, thereby maximizing business income. Second, pricing strategies should be adjusted to consumer purchasing power and market competition, as appropriate pricing can help maintain sales stability and support revenue in line with income theory. Third, although production costs were not found to have a significant effect on sales volume, cost management remains important to ensure efficiency and strengthen the financial structure of the business. Lastly, future research is recommended to expand the scope of variables by including factors such as marketing strategies, customer satisfaction, and product quality, in order to provide a more comprehensive understanding of the determinants of sales volume in the red brick home industry.

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REFERENCES

Afisah, F. N., Fatahurrazak, F., & Sari, R. Y. (2023). *ANALISIS PENERAPAN STANDAR AKUNTANSI EMKM (ENTITAS MIKRO KECIL DAN MENENGAH) PADA UMKM.(STUDI KASUS PADA PT. NALIAL JAYA ABADI …*. repositori.umrah.ac.id. http://repositori.umrah.ac.id/5966/

Aisyah, S. (2019). Menyorot Relasi Luas Lahan, Harga Jual, Hasil Produksi, dan Biaya Produksi Terhadap Pendapatan Petani Padi. *EcceS (Economics, Social, and Development Studies)*, *6*(2), 152. https://doi.org/10.24252/ecc.v6i2.10777

Alfiyanti, D., & Arisinta, O. (2024). *PENGARUH BIAYA PRODUKSI, LUAS LAHAN, JUMLAH PRODUKSI DAN HARGA JUAL TERHADAP PENDAPATAN PETANI PADI DI DESA RA'AS KECAMATAN KLAMPIS, KABUPATEN BANGKALAN*. *08*, 227–236.

Andilan, J., S.M.Engka, D., & I.Sumual, J. (2021). Pengaruh Biaya Produksi, Luas Lahan, Harga Jual Terhadap Pendapatan Petani Kelapa (Kopra) Di Kecamatan talawaan. *Jurnal Berkala Ilmiah Efisiensi*, *21*(06), 102–111.

Arifin, M. (2022). Pengaruh Faktor Produksi terhadap Penjualan di Industri Rumah Tangga. *Jurnal Industri Dan Manajemen*, *20(4)*, *77-*.

Aulia, R., & Irama, O. (2022). Analisis Perbandingan Dalam Perhitungan Harga Pokok Produksi Untuk Menentukan Harga Jual Dengan Penerapan Metode Full Costing Dan Variabel Costing. *PESHUM : Jurnal Pendidikan, Sosial Dan Humaniora*, *1*. https://doi.org/10.56799/peshum.v1i2.81

Fadli, M. (2020). Faktor-Faktor yang Mempengaruhi Penjualan Usaha Kerajinan di Yogyakarta. *Jurnal Ekonomi Kreatif*, *4(1)*, 23–30.

Fitriana, L. (2021). Pengaruh Harga Jual terhadap Volume Penjualan Produk UMKM di Sektor Bangunan. *Jurnal Ekonomi Dan Bisnis*, *9(1)*, 45–52.

Ghozali. (2018). *Aplikasi Analisis Multivariate dengan Program IBM SPSS 25*.

Handoko, & Narundana, V. T. (2023). Jurnal Ekonomika45. *Jurnal Ekonomika 45*, *10*(2).

Heizer, J., Render, B., & Munson, C. (2020). *Operations Management (13th ed.)*. Pearson Education.

Kasmir. (2021). *Pengantar Manajemen Keuangan: Edisi Revisi*. Jakarta: Prenadamedia Group. https://books.google.co.id/books/about/Pengantar_Manajemen_Keuangan.html?id=lW9ADwAAQBAJ&redir_esc=y

Kotler, & Armstrong. (2021). *Principles of Marketing,*. Pearson Education.

Lestari, D. & Aminah, S. (2023). Analisis Strategi Peningkatan Penjualan UMKM Makanan Olahan. *Jurnal Bisnis Dan Pemasaran*, *6(4)*, 134-142.

Lestari, Y., & Hidayat, A. (2021). Efisiensi Biaya Produksi dan Implikasinya terhadap Penjualan UKM. *Jurnal Manajemen Dan Bisnis*, *18(3)*, *145*.

Mahardika, R. (2020). Hubungan Biaya Produksi dan Pendapatan Usaha Mikro. *Jurnal Ekonomi Pembangunan*, *12(1)*, *50-*.

Mankiw, N. G. (2020). *Principles of economics (9rd ed.)*. South-Western College Publishing. https://repository.umi.ac.id/855/1/Buku PENGANTAR TEORI EKONOMI MIKRO.pdf?utm_source=chatgpt.com

Mesak, E. (2023). *Pengertian Penjualan, Tujuan dan Bentuknya dalam Perusahaan*. Mekari. https://mekari.com/blog/pengertian-penjualan/?utm_source=chatgpt.com

Moh. Nanang Setiawan, F. F. L. (2023). *Prospek Perkembangan Usaha Batu Bata Merah : Peluang Dan Analisis (Studi Kasus Pada Usaha Red Brick Business Development Prospects : Opportunities and Analysis (Case Study on Red Brick Business in Majener Katapop 1 Village)*. *4*(2), 65–69.

Noni Rozaini, & Sarma Juliana Silaban. (2023). Pengaruh Biaya Produksi Dan Harga Jual Terhadap Pendapatan Petani Cabai Merah Di Kecamatan Doloksanggul Kabupaten Humbang Hasundutan. *Jurnal Publikasi Sistem Informasi Dan Manajemen Bisnis*, *2*(2), 128–141. https://doi.org/10.55606/jupsim.v2i2.1314

Noviwiyanah, D., & Yudhistira, M. H. (2024). *Pengaruh luas lahan sawah terhadap produksi dan konsumsi pangan indonesia*. *8*, 874–884.

Nugroho, T., Santoso, B., & Lazuardi, M. (2021). Pengaruh Tenaga Kerja, Teknologi, dan Lahan terhadap Pendapatan Petani Sayur. *Jurnal Agritek*, *10(2)*, 76-85.

Nugroho. R. (2020). Pengaruh Harga terhadap Volume Penjualan Produk UKM. *Jurnal Manajemen Dan Kewirausahaan*, *7(2)*, 101–108.

Pradnyawati, I. G. A. B., & Cipta, W. (2021). Pengaruh Luas Lahan, Modal dan Jumlah Produksi Terhadap Pendapatan Petani Sayur di Kecamatan Baturiti. *Ekuitas: Jurnal Pendidikan Ekonomi*, *9*(1), 93. https://doi.org/10.23887/ekuitas.v9i1.27562

Prasetya, D. (2019). Analisis Biaya Produksi Terhadap Penjualan pada Industri Genteng Tradisional. *Jurnal Ekonomi Dan Bisnis*, *14(2)*, *89-*.

Prasetyo, H., & Andini, M. (2020). Analisis Pengaruh Harga dan Distribusi terhadap Penjualan Produk UMKM. *Jurnal Ekonomi Terapan*, *12(3)*, *88–*.

Putri, N. (2021). Analisis Faktor-Faktor Produksi terhadap Kinerja Usaha Kecil. *Jurnal Usaha Kecil Dan Menengah*, *15(2)*, *121*.

Radar Cirebon. (2024). *Produksi Batu Bata Merah Di Desa Danawinangun*. RadarCirebon.TV. https://www.radarcirebon.tv/2024/05/02/produksi-batu-bata-merah-di-desa-danawinangun-video/

Rahayu, S. (2021). Analisis Luas Lahan Terhadap Pendapatan Usaha Tani Padi Di Kabupaten Sumbawa. *Jurnal Riset Kajian Teknologi Dan Lingkungan*, *4*(2), 297–303. http://www.e-journallppmunsa.ac.id/index.php/jrktl/article/view/452%0Ahttp://www.e-journallppmunsa.ac.id/index.php/jrktl/article/download/452/402

Rahmawati, N. (2022). Pengaruh Skala Usaha terhadap Pendapatan UMKM di Sektor Manufaktur. *Jurnal Manajemen Dan Kewirausahaan*, *8(3)*, 91-99.

Rahmawati, S. (2022). Studi Empiris pada Home Industry Bata Merah di Jawa Tengah. *Jurnal Ilmu Ekonomi Dan Sosial*, *10(2)*, *77–*.

Samuelson, P. A., & Nordhaus, W. D. (2019). *Economics (20th ed.).* McGraw-Hill.

Sari, A., & Wibowo, D. (2018). Analisis Pengaruh Harga dan Promosi terhadap Penjualan Produk Bata Ringan. *Jurnal Bisnis Dan Pemasaran*, *6(2)*, *130–*.

Sari, yonalnda novita. (2024). *Pengaruh Kualitas Produk Dan Harga Terhadap Tingkat Penjualan Produk Rina Brownies Jaya Di*.

Sholihah, Q. (2020). *Pengantar Metodologi Penelitian*. Universitas Brawijaya Press. https://ardhindie.com/access/book.php?id=95UIEAAAQBAJ&t=Pengantar Metodologi Penelitian

Siregar, A. (2019). Pengaruh Luas Lahan Terhadap Pendapatan Petani Padi di Kabupaten Deli Serdang. *Jurnal Agribisnis Dan Ekonomi Pertanian, 7(2)*, 112–119.

Sri Harjanti, R., & Murwanti, S. (2021). Analisis Harga Pokok Produksi Dan Harga Jual Dengan Metode Cost Plus Pricing (Studi Kasus Pada Ukm Wedang Uwuh 3Gen Tegal). *Jurnal Manajemen Dan Bisnis*, *6*(1), 84–97. https://doi.org/10.23917/benefit.v6i1.14042

Susanto, H. (2018). Studi Empiris pada UMKM Sektor Makanan. *Jurnal Ekonomi Dan Kewirausahaan*, *10(1)*, *22-*.

Suyono, N. A., Rifki, & Kaukab, M. E. (2022). Pengaruh Harga Jual, Luas Lahan dan Biaya Produksi Terhadap Pendapatan Usaha Budidaya Ikan Konsumsi Air Tawar. *JEPEmas: Jurnal Pengabdian Masyarakat Volume 1 Nomer 2, Oktober 2022*, *1*, 18–27.

Utami, N., & Syahbudi, M. (2022). Pengaruh E-Commerce Dan Inovasi Produk Dalam Meningkatkan Penjualan Umkm (Studi Kasus: Umkm Kota Binjai). *Jurnal Masharif Al-Syariah: Jurnal Ekonomi Dan Perbankan Syariah*, *7*(30), 1209–1219.

Wahyuni, R. & Prasetyo, D. (2021). Analisis Faktor Produksi terhadap Pendapatan Home Industry Bata Merah di Klaten. *Jurnal Ekonomi Dan Kewirausahaan*, *5(1)*, 45–54.

wikipedia.com. (2023). *No Title*. Wikipedia. https://id.wikipedia.org/wiki/Batu_bata

Wulan Ramadhani, G. W. (2024). *Analisis Manajemen Risiko Pada Usaha Batu Bata*

Fakultas Ekonomi Dan Bisnis Islam.

Yudawisastra, H. G., Wadud, M., Ardhiarisca, O., Abbas, A., Awaludin, D. T., Krisbudiman, A., Kusumawati, R., & Nendissa, A. R. (2023). *Teori Produksi Dan Biaya* (Vol. 01). CV Widina Media Utama.

Yuliana, D. (2019). Hubungan Harga Jual dengan Penjualan pada Industri Rumah Tangga. *Jurnal Riset Ekonomi Dan Manajemen*, *8(1)*, *55–6*.

Yusuf Maulana, M. (2022). Pengaruh Harga Jual dan Kualitas Produk terhadap Volume Penjualan Ayam Potong Di Pasar Bangetayu. *Skripsi*, 29–30. https://eskripsi.usm.ac.id/detail-B11A-3095.html