The Effect of Soybean Price Stability on Tofu Sales Productivity with Industrial Development Patterns as a Mediating Variable in Tofu Businesses in the Tulungagung Region

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ABSTRACT

The objective of this study is to analyse the impact of stable soybean prices on the productivity of tofu sales, taking into account the mediating variable of industrial growth patterns in tofu firms located in the Tulungagung region. This study employs a quantitative technique as its research method. The data processing in this study uses the smartPLS SEM (Partial Least Squares - Structural Equation Modelling) programme. PLS has the capacity to elucidate the correlation between variables and conduct comprehensive analyses within a single test. In order to test the hypothesis, specifically utilising statistical values, the t-statistic value utilised with an alpha level of 5% is 1.96. Findings of the research: The first hypothesis testing confirmed that the Industrial Development Pattern (Z) really influenced Sales Productivity (Y). The findings of testing the second hypothesis confirm that there is a significant effect of Price Stability (X) on Sales Productivity (Y). The findings of testing the third hypothesis confirm that Price Stability (X) has a significant impact on Sales Productivity (Y). The findings of testing the fourth hypothesis have been validated. The variable X, which represents price stability, has a significant influence on the variable Y, which represents sales productivity, via means of the variable Z, which represents industrial development patterns.

Keywords: Soybean Price Stability, Sales Productivity and Industrial Development Patterns.

INTRODUCTION

Tofu is a food that is nutritious, cheap and has many consumers. The high demand for consumers requires companies to meet this demand, so operators must work as hard as possible. The tofu production house in Dolok Manampang is one of the tofu factories that produces tofu in large quantities. In a day the factory can cook 500-600 kg of soybeans to meet demand. The increasing demand for tofu is not in line with the number of existing workers. The role of workers in the production process is very important for the company. According to Rudianto (2017: 104), sales productivity is an activity that results in the flow of goods out of the company so that the company receives money from customers. Sales for service companies are the services that the company sells. For trading companies, these are the goods that the company sells. Meanwhile, for manufacturing companies, sales are the goods that the company produces and sells. Sales productivity is the effort made by humans to deliver goods that have been produced to those who need them based on a common goal.

Tofu business is a business that has a wide market share. The production process is easy, simple, raw materials and labor are easily available, low investment, making the tofu industry the right choice for entrepreneurship, however, tofu is a type of product that is easily damaged, because it contains high levels of water and protein so that microorganisms spoil. easy to grow. If there are errors in the tofu production process and good quality control is not implemented, then the tofu product will be susceptible to damage. According to Sandi (2018: 148The industry aims to manufacture completed items by using raw materials or inputs via a large-scale manufacturing process, with the objective of obtaining these things at the most affordable cost while ensuring the greatest level of quality. The industrial sector refers to the economic activity that involves the transformation of raw materials, semi-finished goods, and/or completed goods

into products of greater value. This includes activities such as industrial design and engineering. Industrial development must be directed at efforts to increase exports of industrial products that meet domestic needs. As well as expanding employment opportunities to support industrial development, the movement to use domestic production is increasingly being encouraged (Djojohadikoesoemo, 2017; 54).

The implemented company development tactics include product creation, market penetration, and market development. This approach is implemented with the objective of augmenting the customer base, broadening the market, enhancing consumer happiness, and boosting sales revenue. firm development is the strategic process of enhancing future operations by expanding the reach of a firm and improving the efficiency and output of economic activities via focused effort and determination to attain certain objectives. The revenue of a tofu management enterprise is highly contingent upon the selling price of the product and the expenses associated with tofu production. As the selling price of a product increases and the expenses decrease, the company revenue will also increase. As stated by Anoraga (2017:66), the task of developing a firm falls upon every entrepreneur, necessitating qualities such as foresight, drive, and innovation. If every entrepreneur has this ability, there is a significant prospect of transforming a small firm into a medium-sized or even a large-scale enterprise.

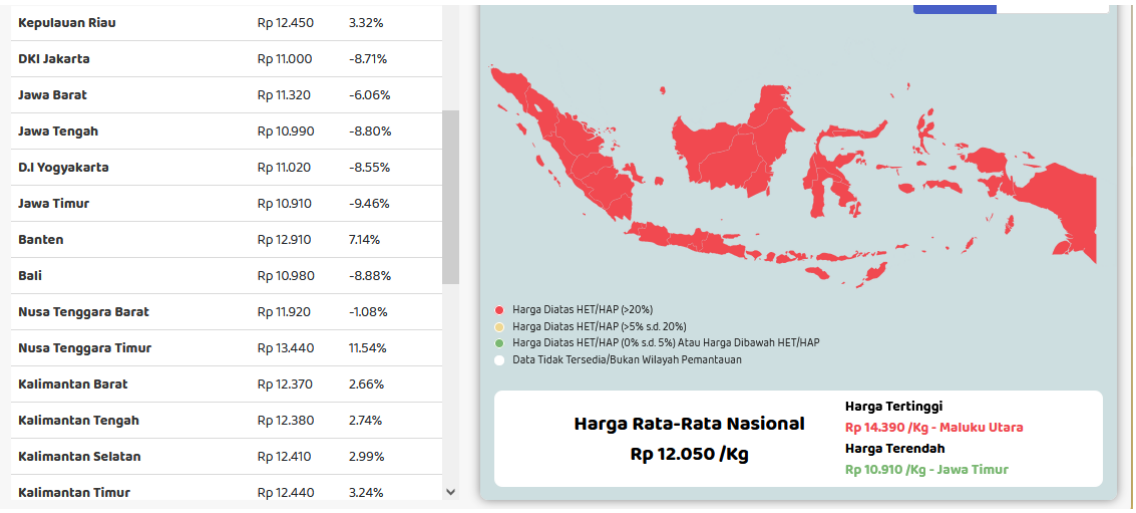

Figure 1. Soybean Prices for East Java Province

Until now, soybean prices are still submitted to the free market mechanism (Supadi 2019). As a result, traders control the largest reserves compared to the government and households. In the era of free market globalization, the flow of goods will be largely determined by the strength of demand and supply in each country. Exporting countries that are able to compete in international markets are countries that are able to produce efficiently. Meanwhile, importing countries that are able to compete to obtain goods from the international market are countries that are able to pay more or at least the same as international prices. This means that to obtain goods from the international market, the people of a country must have adequate purchasing power. If people's purchasing power is weak, their ability to buy imported food is also weak, so food sovereignty becomes vulnerable. Dependence on food imports will threaten social, economic and political stability (Supadi 2019). In order to ensure price stability and preserve reasonable food costs for consumers, it is necessary for the government to implement proper policies. In order to develop an effective price stabilisation policy and enhance the efficiency of the price stabilisation programme, it is crucial to have comprehensive information on the behaviour and volatility of food prices. This information is valuable for devising more

proactive measures and is closely linked to the risks and uncertainties involved in decision-making processes (Sumaryanto 2019).

Pasar	15 Jun	16 Jun	17 Jun	18 Jun	19 Jun	20 Jun	21 Jun
Kab. Trenggalek	10.600	10.600	-	-	10.600	10.600	10.600
Kab. Tulungagung	10.800	10.800	-	-	11.000	11.000	11.000
Kab. Blitar	11.500	11.500	-	-	12.000	12.500	12.600
Kab. Malang	-	-	11.100	11.100	-	-	-
Kab. Lumajang	12.000	12.000	-	-	12.000	12.000	12.000
Kab. Jember	-	11.000	-	-	10.500	10.000	-
Kab. Banyuwangi	10.000	9.700	-	-	10.500	10.500	10.200
Kab. Bondowoso	-	10.900	-	-	10.600	10.600	10.600

Figure 2. Tulungagung Regency Soybean Prices

Problems that affect tofu traders' businesses result in unstable levels of profit obtained by each actor, such as minimal working capital for tofu craftsmen, unpredictable increases in the price of raw materials, and tofu craftsmen who are sometimes unable to produce products of quality that suit consumer tastes. a decrease in the selling price of tofu. For this reason, in order to describe the condition of each actor in the tofu industry, it is necessary to analyze industrial patterns by calculating the added value of tofu products for each actor involved in this value chain, analyzing the sensitivity to the influence of changes in the value of raw materials and reductions in the selling price of tofu from each actor. regarding the added value obtained, then find out how the added value is distributed and the distribution of profit levels for each actor in each marketing pattern of the tofu industrial chain. The problem experienced by entrepreneurs is also the raw material for making tofu, local soybeans are actually superior to imported soybeans, namely the taste of tofu is more delicious and the risk to health is quite low, because it does not come from GMO seeds, while imported soybeans are the opposite. Even though it is superior as a raw material for tofu, local soybeans have many weaknesses when used as a raw material for tempeh, namely the seed size is small, not uniform and not clean; soybean epidermis is difficult to peel off during the washing process; and the fermentation process takes longer.

Soybean Price Stability

Price stability is the maintenance of a general price level that does not change over time in an economy. Price stability, especially avoiding prices increasing due to inflation, is one of the main objectives of macroeconomic policy. (Christopher Pass, Bryan Lowes Leslie Davies, 2017). Stability concerns the use of monetary and fiscal policy to shift the overall demand function and overall expenditure function to avoid very large inflationary and deflationary gaps. 35 In discussing stability, you must first understand fluctuation or instability (Richard G. Lipsey, Peter O. Steiner, 2016) .

Sales Productivity

As stated by Rudianto (2017), sales productivity refers to the process of selling items, which leads to the firm receiving payment from clients. The sales of service firms refer to the services that the company offers for sale. These items are the ones that trading businesses sell. For manufacturing firms, sales refer to the products that the company manufactures and sells. According to Ericson Damanik (2016), sales productivity refers to the quantitative measurement of the amount or volume of a product sold.

Industrial Development Patterns

Industrial developmentis to develop industrial businesses and increase their production capacity, especially for Small and Medium Industries (IKM) as well as diversity of production businesses, so that many variations of products emerge that can be sold to local and regional markets.

Conceptual framework

As stated by Notoatmodjo (2018), a conceptual framework refers to a structure that outlines the connections between ideas that will be assessed or observed in a research project. A conceptual framework should demonstrate the correlation between the variables under investigation. The conceptual framework of this study may be summarised as follows.

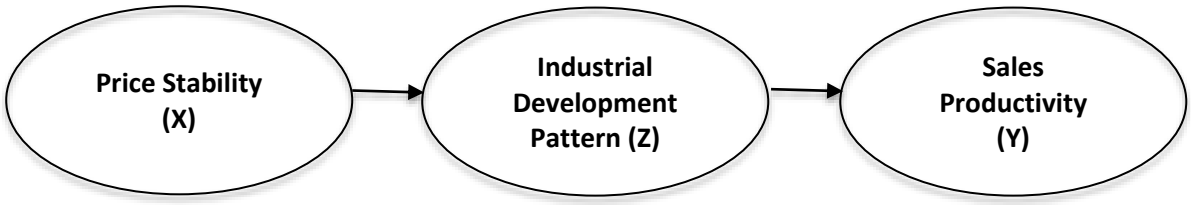

Figure 3. Conceptual framework

Hypothesis

Based on the research framework and paradigm on the previous page, the researcher formulated the following hypothesis:

1. Price Stability influences Industrial Development Patterns.
2. Price stability affects sales productivity.
3. Industrial Development Patterns influence Sales Productivity.
4. Price stability influences sales productivity with industrial development patterns as a mediating variable.

RESEARCH METHODS

This study used a quantitative technique as its research strategy. Sugiyono (2016) defines quantitative research as a method that is based on positivism, used to study populations or samples, sample techniques are usually random, research instruments are used for data collection, and data analysis is quantitative or statistical in nature with the goal of testing hypotheses. Software called smartPLS SEM (Partial Least Square - Structural Equation Modelling) is used to process the data in this investigation. PLS can perform analyses and explain the connection between variables all in one test. Using PLS, researchers may better understand the nature of relationships between latent variables and test hypotheses. Indicators allow the PLS approach to define latent variables, which are not immediately observable (Imam Ghozali, 2016).

Husein explains how to utilise the t-statistic and probability values for hypothesis testing in his book (2015: 21). For a significance level of 5% (alpha), the t-statistic value used to evaluate the hypothesis is 1.96. Therefore, a t-statistic greater than 1.96 is used to reject H0 and accept Ha as the null hypothesis. Ha is accepted if the p value is less than 0.05 in order to use probability to reject or accept a hypothesis.

DISCUSSION

Evaluation of the Measurement Model (Outer Model)

The measurement model (outer model) is confirmatory factor analysis (CFA) by testing the validity and reliability of latent constructs. The following are the results of the outer model evaluation in this research.

Validity test

To test the validity of data, convergent validity can be used to test the validity of data, looking at the loading factor value and discriminant validity by looking at the cross loading value.

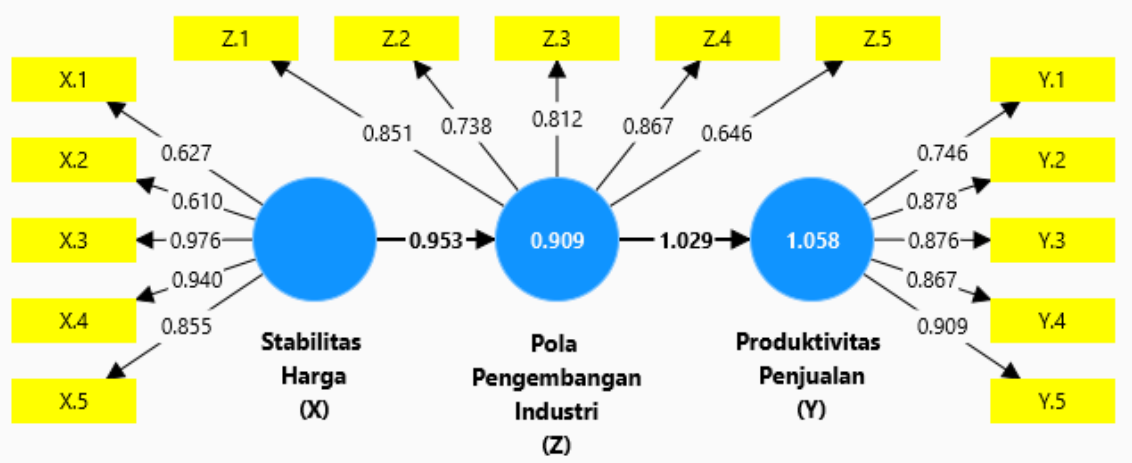

Figure 4. Outer Model

1. **Convergent Validity**

   By comparing the item/component scores to the construct scores computed using PLS, we may determine if the measurement model and the reflecting indicator model have convergent validity. All indicators in this research are genuine since, as shown in Figure 4.1 above, the loading factor values are more than or equal to 0.7. Consequently, study factors may be measured using these indicators.

2. **Discriminant Validity**

   A measure of discriminant validity is the degree to which one construct's Average Variance Extracted (AVE) value correlates with that of other model components. Figure 4.1 shows that there is a stronger link between each variable and the indicators we are interested in when compared to the other variables. Taken together, the aforementioned signs do support a conclusion.

Reliability Test

An instrument can be said to be reliable by looking at the value of Average Variance Extracted more than 0.5, Cronbach Alpha more than 0.6 and Composite Reliability more than 0.7.

Table 1. Calculation of AVE, Cronbach Alpha, and Composite Reliability

Validitas dan reliabilitas konstruk - Ringkasan

	Cronbach's alpha	Keandalan komposit (rho_a)	Keandalan komposit (rho_c)	Rata-rata varians diekstraksi (AVE)
Pola _Pengembangan_Industri_(Z)	0.887	0.897	0.890	0.620
Produktivitas _Penjualan_(Y)	0.931	0.935	0.932	0.734
Stabilitas _Harga_(X)	0.905	0.932	0.906	0.667

Source: Primary data processed (2024)

Based on Table 4.1 above, it can be seen that the Cronbach Alpha value of the variableSales Productivity (Y)amounting to 0.931, the Industrial Development Pattern variable (Z) amounting to 0.887 and the Price Stability variable (X) amounting to 0.905. From the results of the calculations above, it can be seen that all indicators are reliable in measuring the latent variables.

Structural Model Evaluation (Inner Model)

Several indicators, such as the coefficient of determination (R2), the predictive relevance (Q2), and the goodness of fit index (GoF), may be used to evaluate the inner model (Hussein, 2015). These indicators can tell us how well the model fits the data. All of the following is a list of the outcomes of the structural model that was shown by Smart PLS 3.0 in this investigation:

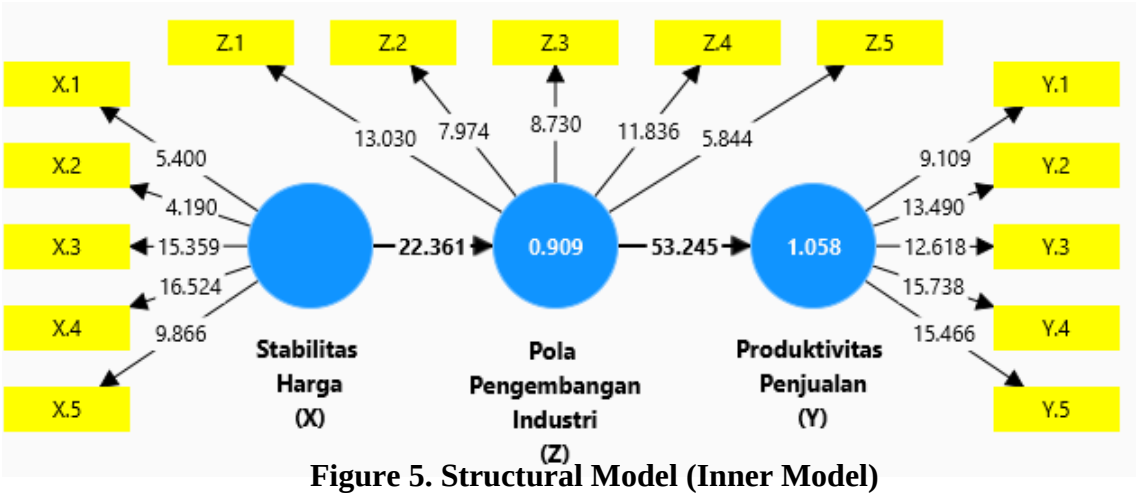

Figure 5. Structural Model (Inner Model)

R2 Results (R-square)

In assessing the model with PLS, start by looking at the R-square for each dependent latent variable. The results of the r2 calculation in this study are as follows:

Table 2. Correlation Value (r2)

R-square - Ringkasan

	R-square	Adjusted R-square
Pola _Pengembangan_Industri_(Z)	0.909	0.906
Produktivitas _Penjualan_(Y)	1.058	1.060

Source: Primary data processed (2024)

It is known that the r2 value of the Industrial Development Pattern (Z) variable is 0.906, which indicates that the Industrial Development Pattern (Z) variable is influenced by the Price Stability (X) variable by 90.6%, or, to put it another way, another variable contribution is Price Stability (X) of 90.6%. This information is derived from the calculations that were performed using bootstapping method, which can be found in Table 4.2 above.

The r2 result of the variableSales Productivity (Y)of 1.060 which means that the variableSales Productivity (Y)influenced by Price Stability (X) and Industrial Development Pattern (Z) of 106.0% or in other words the contribution of the Price Stability (X) and Industrial Development Pattern (Z) variables of 106.0%.

Goodness of Fit Model

The extent of the contribution that exogenous variables make to endogenous variables may be determined via the use of goodness of fit calculations with the use of these methods. When doing PLS analysis, the GoF value may be determined by using the Q-square predictive relevance (Q2) method. The calculations that were performed using the Goodness of Fit Model in this investigation yielded the following results:

$$Q^2 = 1 - (1 - r12)\,(1 - r22)$$
$$Q2 = 1 - (1 - 0.906)\,(1 - 1.060)$$
$$Q2 = 1.005$$

Based on the calculation above, the Q-square predictive relevance (Q2) value is 1.005 or 100.5%. This is able to show that the diversity of variablesSales Productivity (Y)can be explained by the overall model as 1.005 or it can also be interpreted that the contribution of the Price Stability (X) and Industrial Development Pattern (Z) variables to the variableSales Productivity (Y)overall it is 100.5%.

Hypothesis test

This study may make use of the hypotheses that were tested as analysis models since, according to the findings of the outer model that was carried out, all of the hypotheses that were tested have satisfied the criteria. A level of significance ($\alpha = 5\%$) is used for hypothesis testing in this research. This implies that the t-statistic value must be more than or equal to 2.048, or the probability value must be less than or equal to the level of significance. A limit of 0.05 indicates that the chance of deviation is just 5%, and the remaining 95% is stated as being able to accept the hypothesis. This is because the standard deviation is only 5%.

Evaluating the hypothesis in this investigation is broken up into two distinct parts: evaluating the hypothesis of direct effect and assessing the hypothesis of indirect impact (mediation). For the purpose of testing the direct impact, bootstrapping will be used inside the Smart PLS 3.0 programme. On the other hand, t-statistics will be utilised for the measurement of the indirect effect.

Table 3. Path Coefficients

Total efek - Rata-rata, STDEV, Nilai-T, Nilai-p

	Sampel asli (O)	Rata-rata sampel (M)	Standar deviasi (STDEV)	T statistik (|O/STDEV|)	Nilai P (P values)
Pola _Pengembangan_Industri_(Z) -> Produktivitas _Penjualan_(Y)	1.029	1.028	0.019	53.245	0.000
Stabilitas _Harga_(X) -> Pola _Pengembangan_Industri_(Z)	0.953	0.959	0.043	22.361	0.000
Stabilitas _Harga_(X) -> Produktivitas _Penjualan_(Y)	0.980	0.986	0.054	18.219	0.000

Source: Primary data processed (2024)

a. With reference to Table 4.3, the following is a list of the test findings that were obtained for each hypothesis: The patterns of industrial development (Z) have an effect on the productivity of production (Y). The t-statistical value of the association between the Industrial Development Pattern variable (Z) and the Sales Productivity variable (Y) is 53.245, and the significance level is equal to 0.000. This can be observed by looking at the results of the tests that are shown in Table 4.3. The results of the test indicate that the t-statistic is less than or equal to 1.96, and the sig value is more than or equal to the threshold of significance (α = 5%). It may be concluded that the first hypothesis, which states that the Industrial Development Pattern (Z) has an effect on Sales Productivity (Y), is correct.
b. There is a correlation between Price Stability (X) and Sales Productivity (Y). According to the findings of the examination, which are shown in Table 4.3, it is possible to see that the t-statistical value of the association between the Price Stability variable (X) and the Sales Productivity variable (Y) is 22.361, with a significance level of 0,000. The results of the test indicate that the t-statistic is less than or equal to 1.96, and the sig value is more than or equal to the threshold of significance (α = 5%). It may be concluded that the second hypothesis, which states that Price Stability (X) has an effect on Sales Productivity (Y), is correct.
c. There is a correlation between Price Stability (X) and Sales Productivity (Y). As can be observed from the findings shown in Table 4.3, the t-statistical value of the association between the Price Stability variable (X) and the Sales Productivity variable (Y) is 18.219, and the significance level is equal to 0.000. This implies that the link is statistically significant. The results of the test indicate that the t-statistic is less than or equal to 1.96, and the sig value is more than or equal to the threshold of significance (α = 5%). It may be concluded that the third hypothesis, which states that Price Stability (X) has an effect on Sales Productivity (Y), is correct.

The indirect influence test is carried out by testing the strength of the indirect influence of the independent variable (variable An indirect influence can be declared significant if both direct influences that form it are significant. The results of this test can be seen in the following table:

Table 4. Indirect Effects

Efek tidak langsung spesifik - Rata-rata, STDEV, Nilai-T, Nilai-p — Salin ke Excel

	Sampel asli (O)	Rata-rata sampel (M)	Standar deviasi (STDEV)	T statistik (|O/STDEV|)	Nilai P (P values)
Stabilitas _Harga_(X) -> Pola _Pengembangan_Industri_(Z) -> Produktivitas _Penjualan_(Y)	0.980	0.986	0.054	18.219	0.000

Source: Primary data processed (2024)

a. Price Stability (X) has a significant effect on Sales Productivity (Y) through Industrial Development Patterns (Z). Based on the test results in Table 4.4, it can be seen that the t-statistical value of the relationship between the Price Stability variable (X) and the Sales Productivity variable (Y) through the Industrial Development Pattern variable (Z) is 18.219 with sig. of 0,000. The test results show that the t-statistic ≥ 1.96 and the sig value. ≤ level of significance (α = 5%). Thus, the fourth hypothesis is accepted. Price Stability (X) has a significant effect on Sales Productivity (Y) through Industrial Development Patterns (Z).

CONCLUSION

Based on the results of the research and discussion in the previous chapter, it can be concluded as follows:

1. The results of testing the first hypothesis were accepted that the Industrial Development Pattern (Z) had an effect on Sales Productivity (Y).
2. The results of testing the second hypothesis are accepted that Price Stability (X) influences Sales Productivity (Y).
3. The results of testing the third hypothesis are accepted that Price Stability (X) influences Sales Productivity (Y).
4. The results of testing the fourth hypothesis are accepted. Price Stability (X) has a significant effect on Sales Productivity (Y) through Industrial Development Patterns (Z).

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