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Analysis of Differences Food Industry and Footwear Industry Sectors on Economic Growth of Industrial Sector in Mojokerto Regency

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Abstract

The growth of the industrial sector has a significant impact on economic growth in a region. The industrial sector that dominates Mojokerto Regency is the food and footwear industry. Industrial development can be seen through the number of industries, workforce, and investment. Even though they both dominate, the development of the footwear industry has decreased compared to the food industry which is increasingly developing well. This research aims to determine the differences between the food and footwear industries and their influence on the economic growth of the industrial sector in Mojokerto Regency. This research is important because it not only discusses the differences between the food and footwear industries but also looks at the influence of these two industries on the economic growth of the industrial sector. This research uses a different test analysis method independent sample t-test and multiple linear regression analysis on time series data. The research results show that the number of industries and workers in the food and footwear industrial sector does not make a difference to the economic growth of the industrial sector, while investment in the food and footwear industrial sector has a difference to the economic growth of the industrial sector. Then the number of industries, workforce, and investment in the food industry partially and simultaneously influence the economic growth of the industrial sector. While labor and investment in the footwear industry influence economic growth, the number of industries in the footwear industry does not affect the economic growth of the industrial sector in Mojokerto Regency.

Keywords: Economic Growth, Industrial Sector, Number of Industries, Employment, Investment

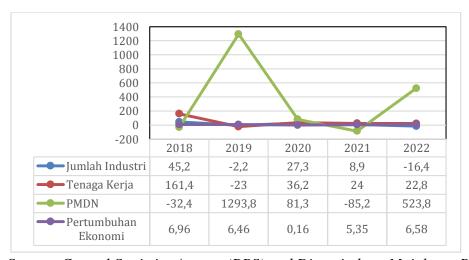
Introduction

Improving the quality of life in a country's society is the goal of economic development efforts. This process not only aims to improve living standards and prosperity but also to create better job opportunities, with the hope of reducing various problems of economic inequality (Maulidya, 2021). The success of a country in improving the standard of living of its citizens can be assessed through the achievement of economic development in that country (Siadari, 2023). One parameter of the successful development of a country's economy is the growing economy (Febriyani & Anis, 2021). Increased growth. The economy in a country is identified through the increasing value production goods and services produced. The success of efforts to improve community welfare is reflected in the achievement of economic growth (Ayem & Pratama, 2018).

Mojokerto Regency is part of the Gatekertosusilo Metropolitan Urban Area and is positioned as a National Activity Center (PKN) on a global scale. This district is directed to maintain its role as a center for national activities, especially industry (Nuraini, 2017). One of the potential sectors possessed by Mojokerto Regency is the industrial sector. The contribution of the industrial sector has a significant impact on spurring economic growth in the region. The industrial sector itself has a role as a leading sector (*leading sector*) (Arsyad, 2015).

Based on Gross Regional Domestic Product (GRDP) data in 2022, the largest contributor from the processing industry sector is the food industry subsector which contributed 51.89 percent (Mojokerto Regency Central Statistics Agency, 2023). Mojokerto Regency is also a potential area for local economic development, especially in the footwear industry (Achsoni et al., 2019). This is seen as a great opportunity to meet people's clothing needs, especially in shoe production. As the footwear industry develops, the Mojokerto Regency government has established the Trowulan Shoe Wholesale Center as a step to support the development of this sector (Nasrullah, n.d.).

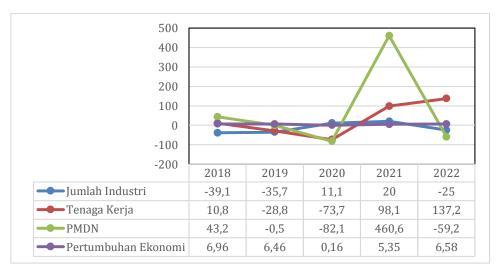
Graph 1 Percentage of Number of Industries, Labor, Domestic Investment in the Food Industry on Economic Growth in the Industrial Sector of Mojokerto Regency in 2018-2022



Source: Central Statistics Agency (BPS) and Disperindang Mojokerto Regency

The food industry in Mojokerto Regency plays the largest role in contributing to the economic growth of the industrial sector, namely 51.89 percent (Mojokerto Regency Central Statistics Agency, 2023). In 2021, the number of industries decreased again by 8.9 percent until it reached a negative figure in 2022, namely -16.4 percent. This drastic decline was caused by intense competition from competitors from outside the region, especially large companies that offer similar products and have stronger market dominance (Rosita, 2020). The workforce in the food industry in Mojokerto Regency experiences fluctuating growth in line with the growth in the number of food industries. The decline in workforce that occurred in 2019 was due to the large number of workers who experienced layoffs due to the impact of COVID-19 so many industries experienced business failures which resulted in a decrease in the number of workers. Investment in the food industry in Mojokerto Regency also tends to fluctuate, but in 2019 it experienced an increase amid the Covid-19 pandemic. Even though it is slowing down, the food industry can still survive and continue to grow positively, making it attractive to many investors.

Graph 2 Percentage of Number of Industries, Labor, Domestic Investment in the Footwear Industry on Economic Growth in the Industrial Sector of Mojokerto Regency in 2018-2022



Source: Central Statistics Agency (BPS) and Disperindang Mojokerto Regency

The Mojokerto Regency Government has developed the potential of footwear, which is one of the dominant industries, by developing the potential through the construction of the PPST (Trowulan Shoe Wholesale Center. However, as time goes by, the footwear industry has experienced a decline until 2022 which will experience a decline of -25 percent. Industrial workforce Footwear also fluctuated until 2022 it experienced an increase even though the number of industries decreased. Thus, the workforce that had an impact on business closures shifted to large industries, which in the end saw an increase in investment again sharply in 2022, namely -59.2 percent due to inflation which has an impact on reducing investment income in the footwear sector. The reduction in investment also results in productivity inefficiencies which in turn results in a decrease in the number of industries and workforce in the footwear industry (Ratih Primandari, 2019). The food industry and footwear industry are supported by a large number of industries, workforce, and investment.

Literature Review

Economic growth

Economic growth according to Sukirno in his book Macroeconomic Theory Introduction (Sukirno, 2015) is defined as the progress of activities in the economy which results in the enhancement of production of goods and services in society so that the level of social welfare increases. This increase in the production of goods and services comes from increasing production factors, both in terms of quantity and quality.

Sector Industry

Industry is an economic activity that processes raw materials or uses resources to produce goods or services with added value or higher benefits (Virdausya et al., 2020). The industrial sector has an important role in providing employment opportunities and producing quality goods and services by utilizing existing resources.

Labor

According to Todaro (Julian et al., 2023), labor in an economy is one of the drivers of economic growth. Human capital development can increase human capital, with a comparable or even greater positive impact on production, especially considering the growth of the human population.

Investment

According to Sukirno in his book Macroeconomic Theory Introduction (Sukirno, 2015), investment is defined as capital investment or capital formation, which can be explained as the second element that contributes to the level of aggregate expenditure. Investment refers to expenditure made by investors or companies to acquire capital goods and production equipment, to increase the production capacity of goods and services available in an economy (Silitonga et al., 2021).

Research Method

This research uses a descriptive approach by conducting quantitative analysis to evaluate the differences between the food and footwear industries and their impact on the economic growth of the industrial sector in Mojokerto Regency. This approach involves processing numerical data using mathematical formulas. The results of this data analysis provide an understanding of the differences between the food and footwear industries, as well as their influence on the economic growth of the industrial sector in Mojokerto Regency.

The independent variables in this research include economic growth in the industrial sector, number of industries, employment, and investment. Meanwhile, the dependent variable is economic growth in the industrial sector. The data is sourced from the official website of the

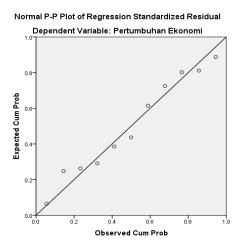
Central Statistics Agency (BPS) and the Mojokerto Regency Disperindang, which is a time series from 2012 to 2022.

For analysis, use the difference test *Independent Sample T-test* to see the differences in the number of industries, workforce, and investment in the food and footwear industry as well as multiple linear regression analysis to see the influence of the number of industries, workforce and investment in the food and footwear industry on the economic growth of the industrial sector of Mojokerto Regency. Multiple linear regression analysis tests include normality, autocorrelation, multicollinearity, and heteroscedasticity tests to test the relationship between variables effectively.

Result

A. Normality Test

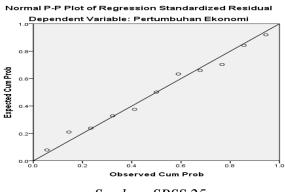
Figure 1. Food Industry Normality Test Results



Sumber: SPSS 25

Based on the image above, it can be seen that the data points are located around or follow the direction of the diagonal line. Thus it can be concluded that the food industry data has a normal distribution.

Figure 2. Footwear Industry Normality Test Results



Sumber: SPSS 25

Based on the image above, it can be seen that the data points are located around or follow the direction of the diagonal line. Thus it can be concluded that the footwear industry data has a normal distribution.

B. Autocorrelation Test

Table 1. Autocorrelation Test Results in the Food Industry and Footwear Industry

Sector	Durbin Watson		
Food industry	2,035		
Footwear Industry	1,992		

Sumber: SPSS 25

Based on table *Durbin Watson* food industry is dL = 0.5948 and dU = 1.9280. Then 4-dL = 3.4052 and 4-dU = 2.072. Based on the autocorrelation test decision-making, it is known that the value *Durbin Watson* (DW) of 2.032 is located between dU, namely 1.928, and the 4-dU value, namely 2.072 or $dU \le DW \le 4-dU = 1.928 \le 2.035 \le 2.072$ so that there are no symptoms of autocorrelation in the regression model. In the footwear industry, it has a value *Durbin Watson* amounting to 1.992 so if you look at the table *Durbin Watson* is dL = 0.5948 and dU = 1.9280. Then 4-dL = 3.4052 and 4-dU = 2.072. Then it is known that the value *Durbin Watson* (DW) of 1.992 is located between dU, namely 1.928, and the 4-dU value, namely 2.072 or $dU \le DW \le 4-dU = 1.928 \le 1.992 \le 2.072$ so that there are no symptoms of autocorrelation in the regression model

C. Multicollinearity Test

Table 2. Multicollinearity Test Results in the Food Industry and Footwear Industry

Variable	Food industry		Footwear Industry		
v arrable	VIF	Is.	VIF	Is.	
Number of	3,544	<10	1,311	<10	
Industries					
Labor	3,792	<10	1,092	<10	
Investment	1,302	<10	1,284	<10	

Source: SPSS 25

Based on the results of the multicollinearity test above, it shows that the research data in the food industry sector does not show symptoms of multicollinearity between each variable in the regression model, namely by looking at the VIF value. VIF value for the Number of Industries variable (X_1) , Workforce (X_2) , and Investment (X_3) in the food and footwear industry < 10, it can be concluded that there are no symptoms of multicollinearity in the regression model.

D. Heteroscedasticity Test

Table 3. Heteroscedasticity Test Results in the Food Industry and Footwear Industry

Variable	Food industry		Footwear Industry		
v arrable	Say.	Is.	Say.	Is.	
Number of	0,389	>0,05	0,250	>0,05	
Industries					
Labor	0,738	>0,05	0,089	>0,05	
Investment	0,507	>0,05	0,139	>0,05	

Based on the results of the heteroscedasticity test above, it can be seen that the significance value of all variables in the food industry and footwear industry has a significance value of > 0.05. This shows that the model used in this research is free from symptoms of heteroscedasticity.

E. Independent Sample T-Test

Table 4. Test Results Independent Sample T-Test

t-test for Equality of Mean

			Say. (2 tailed)
Number Industries	of	Equal variances assumed	0,000
inausti ies		Equal variances not assumed	0,000
Labor		Equal variances assumed	0,020
		Equal variances not assumed	0,022
Investment		Equal variances assumed	0,322
		Equal variances not assumed	0,333

Source: SPSS 25

In table *Independent Sample T-test* where if the sig value. (2 tailed) < 0.05, it can be concluded that there is a significant difference, but if the sig. (2 tailed) > 0.05 means there is no significant difference. If the data is homogeneous, look at *Equal Variances Assumed* if not homogeneous on *not assumed*. Total industry is worth 0,000; Labor *variances assumed* 0,020 *not assumed* 0.022; Investment *variances assumed* 0,322 *not assumed* 0.333. It can be concluded that there are differences in investment in the food and footwear industries. Meanwhile, there is no difference in the number of industries and workers between the food and footwear industry sectors.

F. Multiple Linear Regression Analysis Test

a. Food industry

Table 5. Multiple Linear Regression Analysis Test Results

	Unstand	ardized	Unstandardized	
Model	Coefficients B Std. Error		Coefficients	
			Beta	
(Constant)	14,409 2,158			
JIm	-0,298	0,076	-1,501	
TKm	0,001 0,000		1,146	
In the	-3,826	0,000	-0,559	

Source: SPSS 25

Based on the results of the multiple linear regression test above, the food industry multiple linear regression equation is obtained as follows:

$$PE = 14.409 - 0.298 JIm + 0.001 TKm - 3.826 Im + e$$

From the equations and test results above, the following interpretation is obtained:

- 1. Constant = 14,409, showing when the total industry (X_1) , labor value (X_2) , and investment value (X_3) in the constant food industry, it will increase the economic growth of the Mojokerto Regency industrial sector by 14.409 billion rupiah.
- 2. Regression Coefficient of Number of Food Industries = 0.298, indicating that if the number of food industries increases by 1 unit, the economic growth of the Mojokerto Regency industrial sector will decrease by 27,799 billion rupiah.
- 3. Regression Coefficient Food Industry Labor = 0.001, indicating that if the food industry workforce increases by 1 person, the economic growth of the Mojokerto Regency industrial sector will increase by 0.001 billion rupiah.
- 4. Regression Coefficient for Food Industry Investment = 3.826, indicating that if investment in the food industry increases by 1 million rupiah, the economic growth of the industrial sector in Mojokerto Regency will decrease by -3.826 billion rupiah.

b. Footwear Industry

Table 6. Multiple Linear Regression Test Results for the Footwear Industry

	Unstand	Unstandardized	
Model	Coeffi	Coefficients	
	В	Beta	
(Constant)	0,312 1,111		
JIa	-0,012 0,042		-0,056
TKa	0,001 0,000		0,715
It	0,001 0,000		0,446

Source: SPSS 25

Based on the results of the multiple linear regression test above, the multiple linear regression equation for the footwear industry is obtained as follows:

$$PE = 0.312 - 0.012 JIa + 0.001 TKa + 0.001 Ia + e$$

From the equations and test results above, the following interpretation is obtained:

- 1. Constant = 0.312, showing when the total industry (X_1) , labor value (X_2) , and investment value (X_3) in the constant footwear industry, it will increase the economic growth of the Mojokerto Regency industrial sector by 0.312 billion rupiah.
- 2. Regression Coefficient for the Number of Footwear Industries = -0.012, indicating that if the number of footwear industries increases by 1 unit, the economic growth of the Mojokerto Regency industrial sector will decrease by -0.012 billion rupiah.
- 3. Regression Coefficient for Footwear Industry Labor = 0.001, indicating that if the industrial workforce increases by 1 person, the economic growth of the industrial sector in Mojokerto Regency will increase by 0.001 billion rupiah.
- 4. Regression Coefficient for Footwear Industry Investment = 0.001, indicating that if investment in the footwear industry increases by 1 million rupiahs, economic growth in the industrial sector of Mojokerto Regency will increase by 0.001 billion rupiahs.

G. Coefficient of Determination

Table 7. Coefficient of Determination Test Results for the Food and Footwear Industry

Sector	R Square (R ²)
Food industry	0,71
Footwear Industry	0,81

Source: SPSS 25

The R Square value obtained for the food industry is 0.71, meaning that 71% of the independent variables can explain the dependent variable, and the remaining 29% is explained by other variables outside the research. Meanwhile, the footwear industry has an R Square of 0.81, meaning that 81% of the independent variables can explain the dependent variable, and the remaining 29% is explained by other variables outside the research.

H. F-Test

Table 8. Food and Footwear Industry F Test Results

Sector	Say.	Requiremen	Information
		t	
Food industry	0,027	<0,05	Influential
Footwear Industry	0,006	< 0,05	Influential

Source: SPSS 25

Based on the F test results above, it can be concluded that the F value in the food and footwear industry is <0.05, so the independent variables together influence the dependent variable.

I. t-test

Table 9. Food and Footwear Industry t-test results

	Food industry			Footwear Industry		
Variable	Say.	Requir	Is.	Say.	Require	Information
		ement			ment	
Number of Industrie s	0,006	>0,05	Influential	0,774	>0,05	No effect
Labor	0,023	>0,05	Influential	0,004	>0,05	Influential
Investm ent	0,047	>0,05	Influential	0,047	>0,05	Influential

Source: SPSS 25

Based on the table above, the t test results are as follows:

- 1. The variable number of industries in the food industry has a significance value of 0.006 <0.05, so the variable number of food industries has a significant influence on the economic growth of the industrial sector of Mojokerto Regency. Meanwhile, the variable number of industries in the footwear industry has a significance value of 0.774 > 0.05, so the variable number of footwear industries does not have a significant effect on the economic growth of the industrial sector of Mojokerto Regency.
- 2. The labor variable in the food industry has a significance value of 0.023 <0.05, so the food industry labor variable has a significant influence on the economic growth of the industrial sector of Mojokerto Regency. The labor variable in the footwear industry has a significance value of 0.004 <0.05, so the footwear industry workforce has a significant effect on the economic growth of the industrial sector of Mojokerto Regency.
- 3. The investment variable in the food industry has a significance value of 0.047 <0.05, so investment in the food industry has a significant influence on the economic growth of the industrial sector of Mojokerto Regency. The investment variable in the footwear industry has a significance value of 0.047 <0.05, so investment in the footwear industry has a significant effect on the economic growth of the industrial sector of Mojokerto Regency.

Discussion

The number of food and footwear industries in Mojokerto Regency has an equally important role in driving economic growth in Mojokerto Regency. The large role of various

food and footwear industries in producing goods and services greatly determines the economic growth of Mojokerto Regency. This is supported by the large number of processing industrial areas in Mojokerto Regency which are spread across several sub-districts, including Ngoro District, Jetis District, Kemlagi District, Dawarblandong District, and Mojoanyar District. Although the contribution of the food industry sector is greater than the footwear industry sector to the economic growth of Mojokerto Regency, the number of industries between the food industry and the footwear industry grows in balance to encourage economic growth.

The workforce in the food and footwear industry makes no difference to the economic growth of the industrial sector in Mojokerto Regency. The food and footwear industry requires a large workforce so that it can increase people's income and purchasing power, which ultimately encourages local economic growth. The food industry usually requires a large workforce, from farmers, and livestock breeders to factory workers. A large workforce can increase food production and can also improve the welfare of farmers and livestock breeders because the demand for raw materials for the food industry will also increase.

Investment in the food and footwear industry in Mojokerto Regency has a difference in the economic growth of Mojokerto Regency. This can be seen in the scale of investment in both industries. Investment (PMDN) in the food industry tends to require large investments to build production facilities, machinery, and processing technology. The food industry has a wider economic impact because it is closely tied to the agricultural, agricultural, livestock, wholesale, and retail trade sectors. Investment in the food industry in Mojokerto Regency can have a significant impact on the economic growth of the industrial sector because it has great potential to increase production, create jobs, and contribute to the economic growth of Mojokerto Regency.

Based on the tests that have been carried out, it can be seen that there is a joint influence between the variables of several industries, workforce, and investment on the economic growth variable of the industrial sector in Mojokerto Regency. Then, if seen from the partial t-test, the number of food industries has a significant influence on the economic growth of the industrial sector of Mojokerto Regency. The growing food industry in Mojokerto Regency can create jobs for residents, which will improve community welfare and thus encourage economic growth in the industrial sector in Mojokerto Regency. fisheries, infrastructure development, and increasing the competitiveness of Mojokerto Regency. The food industry labor variable has a significant influence on the economic growth of the industrial sector of Mojokerto Regency. The food industry investment variable has a significant influence on the economic growth of the industrial sector of Mojokerto Regency. The large investment in the food industry in Mojokerto Regency can open up opportunities for extensive business development and expansion so that it can create new jobs.

Based on the tests that have been carried out, it can be seen that the variable number of footwear industries does not have a significant effect on the economic growth of the industrial sector of Mojokerto Regency. Apart from that, the footwear industry in Mojokerto Regency has limited production capacity, which is caused by limited capital and market competition so the number of existing footwear industries is not able to boost the economy or expand

production capacity. Then, the labor variable in the footwear industry has a significant effect on the economic growth of the Mojokerto Regency industrial sector. By having these special skills, workers in the footwear industry can help support the growth and competitiveness of this industry in Mojokerto Regency. Then, the investment variable in the footwear industry has a significant effect on the economic growth of the industrial sector in Mojokerto Regency. Even though the number of footwear industries does not influence the economic growth of the industrial sector, investment (PMDN) in the footwear industry influences the economic growth of the industrial sector in Mojokerto Regency. Investment in the footwear industry in Mojokerto Regency has an impact on job creation, which is proven by increasing investment in the food industry increasing the number of industries and workers in the footwear industry in Mojokerto Regency. This not only includes aspects of creating jobs and increasing income but also increasing the added value of local products, stimulating supporting sectors, developing infrastructure, improving the quality of the workforce, and developing innovation and technology.

Conclusion

Based on the analysis of differences between the food and footwear industries on the economic growth of the industrial sector, the conclusion is as follows: there is a difference in investment (PMDN) between the food industry and the footwear industry, while there is no difference in the number of industries and workforce between the food and footwear industries. on the economic growth of the industrial sector in Mojokerto Regency. The test results also show that the number of industries, workforce, and investment in the food industry partially and simultaneously influence the economic growth of the industrial sector. While the number of industries, workforce, and investment in the food industry simultaneously influence the economic growth of the industrial sector, the number of footwear industries does not influence the economic growth of the industrial sector in Mojokerto Regency.

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