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The Effect Of Plastic Seed Price Fluctuations And Supply Continuity On The Profitability Of Waste Plastic Recycling Businesses (CV. LIMBAH FIKRI)

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Abstract

This study aims to determine the effect of fluctuations in the price of plastic beans and continuity of supply on the profits of the business CV. Limbah Fikri . This type of research is quantitative. The analysis used is a quantitative technique using saturated sampling techniques with a total population of 60 financial data from 2022-2023. The results of the research instrument test use multiple regression analysis tests, t tests, f tests. The results of the analysis show that price fluctuations have no significant effect and supply continuity has a significant effect on business profits with the results of multiple regression analysis tests. The results of the t test for price fluctuations obtained the results of the t test> t table (0.233 < 1.672) means that Ho1 is accepted Ha1 is rejected, the t test for continuity of supply obtained the results (33.582> 1.672) means that Ho2 is rejected and Ha2 is accepted, and the results of the f test are (571.194> 3.159) meaning that Ho3 is rejected Ha3 is accepted. Based on the results of this data, it can be concluded that price fluctuations and supply continuity affect the business profits of CV. Limbah Fikri.

Keywords: Price Fluctuations, Supply Continuity and Business Profits

Introduction

Waste is an item or object in the form of leftover material, either from humans, animals, or plants that is no longer used and disposed of in nature. Waste generated in large quantities from industrial activities is usually referred to as waste, while waste generated from human activities is referred to as consumer waste. The amount of consumer waste in Indonesia is increasing along with the increase in numbers, consumption patterns and changes in people's lifestyles. Various industries in the world use plastic to package their products. The instant food and beverage industry, for example, chooses aluminum foil-coated plastic or multilayer plastic as packaging because it is considered safe and can keep the product suitable for consumption. In addition, these wrapping materials do not increase production costs. Manufacturers can still sell retail products at affordable prices. The same is done by shampoo, candy, milk and medicine manufacturers. Aluminum foil-coated plastic packaging replaced glass, tin and paper as packaging materials. At the same time, industrialized products were abundant, human needs became more complex, people continued to shop and needed bags to carry their belongings. Jambeck et al. (2015), revealed that Indonesia currently ranks second after China in the list of 20 countries where the most plastic waste is found in the sea, 10 of which can be seen in Table 1.

Table 1. Plastic Waste Pollution in Global Marine Waters 2015

Rank	Country	Waste that is not handled (%)	Untreated plastic waste (million tons/year)	Global untreated waste (%)	Amount of plastic waste in the ocean (million tons/year)
1	China	76	8.82	27.7	1.32 - 3.53
2	Indonesia	83	3.22	10.1	0.48 - 1.29
3	Philipina	83	1.88	5.9	0.28 - 0.75
4	Vietnam	88	1.83	5.8	0.28 - 0.73
5	Sri Lanka	84	1.59	5	0.24 - 0.64
6	Thailand	75	1.03	3.2	0.15 - 0.39
7	Mesir	69	0.97	3	0.15 - 0.39
8	Malaysia	57	0.94	2.9	0.14 - 0.37
9	Nigeria	83	0.85	2.7	0.13 - 0.34
10	Bangladesh	89	0.79	2.5	0.12 - 0.31

Sumber : Jambeck et al. (2015)

Table 1. Plastic waste pollution in the world's marine waters, 2015 In Table 1, it can be seen that Indonesia ranks second after China as the country with the most plastic waste in the ocean. As much as 83% or equivalent to 3.22 million tons per year of plastic waste in Indonesian waters is not handled. This figure contributes to world marine pollution by 10.1% annually. Based on these data and by looking at the various negative impacts that can be caused, the seriousness of handling plastic waste must be increased. One of the MSMEs engaged in waste processing is CV. Limbah Fikri. This company, located in Bogor, is engaged in recycling plastic waste in the form of packaging bottles. Various types of used bottles, such as beverage bottles, shampoo, oil and various other types of packaging bottles are the main raw materials for Limbah Fikri for the production of plastic shreds and various derivative products. Limbah Fikri processes plastic bottle packaging waste into plastic shreds using a shredding machine developed by its own innovation. With this ability, it is possible for Limbah Fikri to develop the company and increase revenue.

Methods

This research uses quantitative methods by using primary data in its research. Quantitative data is a type of data that can be calculated in a direct way, the data is in the form of an explanation of any information expressed in the form of formulas or numbers obtained from CV. Limbah Fikri. according to Sugiono (2018: 13) states that "quantitative data is a research method based on concrete data, this research data is in the form of numbers measured using statistics which become a calculation test tool, which connects to the problem to be studied in order to produce a conclusion". In this study using the data analysis method, the classic assumption test consists of data normality test, Heteroscedasticity Test, Meltikolienearity Test, and Autocorrelation Test,

then multiple linear analysis, multiple correlation, coefficient of determination, and hypothesis testing consisting of T test and F test.
In this study, between primary data and secondary data, the authors used secondary data sources in conducting research. Secondary data according to Sugiyono (2018) is data obtained by researchers or data collectors indirectly. It is said indirectly because the data is obtained through intermediaries, which can be through other people, or through documents. This research collection technique is the result of collecting financial data CV. Limbah Fikri from the period 2022-2023.

Population and Sample

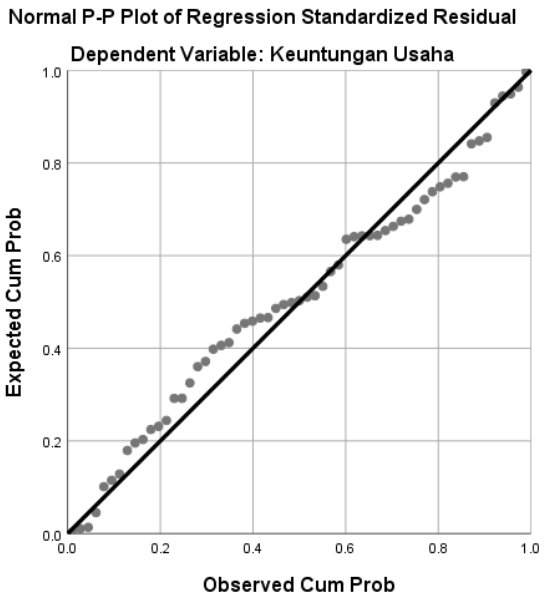
According to Sugiono (2017). "Population is all data that has become the center of attention of researchers in a predetermined time and scope. Population is related to data, so the number of populations will be as many people". Population is the scope of characteristics of all objects to be studied. Determination of the population must begin with a clear determination of each population that will be the target scope of the research. The objects in this study are monthly financial statement data on CV. Limbah Fikri in 2022-2023.

According to Sugiyono (2018) "the sample is part of the number and characteristics possessed by the population". The sampling technique used in the study was purposive sampling according to Sugiyono, which is "a sampling technique with certain considerations". And the definition of purposive sampling according to Burhan Bungin is "a technique used in studies that prioritize research objectives over the nature of the population in determining research samples". The samples used in this study were 5 types of processing products with the most dominant criteria.

Results

Clasiccal Asumption Test

1. Normality Test



Source: SPSS output ver 25 (2023)

Figure 1. Normality test result

Based on the output chart, it has been clearly presented that the points spread around the diagonal line and follow the direction of the diagonal line, so the data contributes normally.

2. Multicollinearity Test

Table 2. Multicollinearity Test

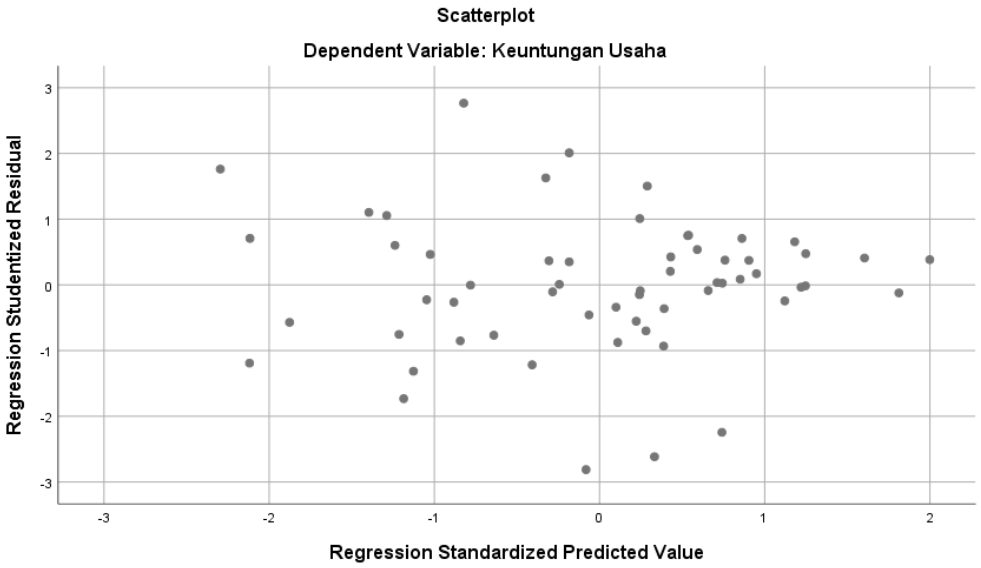
Coefficients[a]

Unstandardized Coefficients			*Standardized Coefficient*			*Collinearity Statistics*	
Model	*b*	*Std. Error*	*Beta*	*T*	*Sig.*	*Tolerance*	*VIF*
(Constant)	30275 49.321	2599009. 486		1.165	.249		
Total X_1	168.22 6	245.252	- 0.16	.686	.496	.898	1.114
Total X_2	1.861	.045	.990	41.471	.000	.898	1.114

Source: SPSS output ver 25 (2023)

From the calculation using the tolerance value, it shows that there are no independent variables that have a tolerance value of less than 0.10. Which means that there is no correlation between the independent variables of multicoloniearity.

3. Heteroscedasticity Test



Source: SPSS output ver 25 (2023)

Figure 2. Heteroscedasticity Test

Figure above shows that the dots spread randomly and do not form a pattern. both above and below the number 0 on the Y axis, it can be concluded that there is no heteroscedasticity.

4. Autocorrelation Test

Table 3. Autocorrelation Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Durbin-Watson
1	.976[a]	.953	.952	.05757	2.061

a. Predictors: (Constant), Fluktuasi Harga X2, Kontinuiitas SuplaiX1

b. Dependent Variable: Keuntungan Usaha Y

Source: SPSS output ver 25 (2023)

Based on table It can be seen that the Durbin Watson value is 2.061. this means 1.6475 < 2.061 < 2.3525. Thus, the data after the Durbins Two-Step Method shows that there is no autocorrelation.

Table 4. Partial Test (t-test)

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
1	(Constant)	1.075	.277		3.887	.000
	Price Fluctuations	.010	.044	.007	.233	.816
	supply continuity	.893	.027	.977	33.582	.000

Source: SPSS output ver 25 (2023)

Hypothesis Testing

T-test

From the results of the table above, the testing of independent variables is explained as follows:

1. The t-test results show that the significant value of work motivation has no effect t-count 0.233 < 1.672 t-table then H0 is accepted and H1 is rejected.
2. The t-test results show that the significant value of work discipline has a t-count of 33.582> 1.672 t-table, so H2 is accepted and H0 is rejected.

Table 5. Simultaneous Test (f-test)

ANOVA[a]

Model	Sum of Squares	df	Mean Square	F	Sig.
Regression	3.786	2	1.893	571.194	.000
Residual	.186	56	.003		
Total	3.972	58			

Source: SPSS output ver 25 (2023)

F-test

Based on the table above, it can be seen that the significant value proves 0.00 <0.05, and the calculation on the simultaneous testing of work motivation and work discipline is 571.194> F table 3.159. That H0 is rejected and H3 is accepted, which means that there is an influence of price fluctuations (X1) and supply continuity (X2) together (simultaneously) on business profits (Y).

Table 6. Coefficient of Determination Test

Model Summary[b]

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	,976[a]	,953	,952	.05757

a. Predictors: (Constant), Price Fluctuations, Supply Continuity

b. Dependent Variable: Business Profits

Source: SPSS output ver 25 (2023)

Coefficient of Determination Test

Based on the results of the table above, the adjusted R Square value (coefficient of determination) of 0.952 has been obtained, which means that the variable effect of price fluctuations (X1) and supply continuity (X2) on business profits (Y) is 95.2% and the remaining 4.8% is influenced by other factors outside of this discussion.

Conclusion

Based on the data that has been obtained and researched in the study of the effect of Price Fluctuations and Continuity of Supply on the Profit of the Plastic Waste Recycling Business with monthly financial statement data at CV. Limbah Fikri in 2022-2023 can be concluded as follows: 1. In accordance with the results of research on the effect of Price Fluctuations and Supply Continuity on Business profits CV. Limbah Fikri has obtained multiple linear regression results, namely: Y = 1.075 + 0.010 (X1) + 0.893 (X2). 2. Variable Price Fluctuations (X1) have no effect on Business Profits (Y) as evidenced by the calculated T value obtained 0.233 < T table 1.672, with a significant value of 0.816 > 0.05. Then Ho is accepted and H1 is rejected. With the meaning that there is no significant influence between work motivation variables on employee performance. 1. The Supply Continuity

variable (X2) has an effect on Business Profits (Y) as evidenced by the calculated T value obtained 33.582> T table 1.672, with a significant value of 0.00 <0.05. Then H2 is accepted and Ho is rejected. This means that there is a significant influence between the Supply Continuity variable on business profits. 2. Based on the results of the simultaneous test (Test f), it can be seen that the significant value proves 0.00 <0.05, and the calculation on the simultaneous testing of Price Fluctuations and Continuity of Supply is 571.194> F table 3.159. That H0 is rejected and H3 is accepted, which means that there is an effect of work motivation (X1) and work discipline (X2) simultaneously. 3. Based on the results of the determination coefficient test. It has been obtained an adjusted R Square value (coefficient of determination) of 0, 952 which means that the variable effect of Price Fluctuations (X1) and Supply Continuity (X2) on Business profits (Y) with a magnitude of 95.2% and the remaining 4.8% is influenced by other factors outside of this discussion.

Refrence

[1] Nelly, Sofia, Safrida Safrida, and Zakiah Zakiah. 2018. "Analisis Faktor-Faktor Yang Mempengaruhi Fluktuasi Harga Beras Di Provinsi Aceh." *Jurnal Ilmiah Mahasiswa Pertanian* 3(1): 178–91.

[2] Pratomo, Dedi Suwarsito, and Erna Zuni Astuti. 2018. "Analisis Regresi Dan Korelasi Antara Pengunjung Dan Pembeli Teradap Nominal Pembelian Di Indomaret Kedungmundu Semarang Dengan Metode Kuadrat Terkecil." *Ilmu Komputer* 12(1): 1–12. http://eprints.dinus.ac.id/16877/1/jurnal_15951.pdf.

[3] Rasmikayati, Elly, Yudistira Haikal Arisyi, Bobby Rachmat Saefudin, and Fitri Awaliyah. 2020. "Studi Pola Dan Derajat Kemitraan Pemasaran Mangga Antara Petani Mangga Dengan Ud Wulan Jaya." *Agrifor* 19(1): 45.

[4], Santoso, Gunawan. 2015. "Determinan Koefisien Respon Laba." *Accounting Analysis Journal* 5(1): 69–85.

[5] Sugeng. 2014. Metode Penelitian Pendidikan Matematika *Metode Penelitian Pendidikan Matematika*.

[6] Sukamdi, Harrij Mukti, Abdullah Thufail, and Edi Waluya. 2021. "Studi Penyulang Kandangan Untuk Meningkatkan Kontinuitas Suplai Energi Listrik Ke Pelanggan." *ELPOSYS: Jurnal Sistem Kelistrikan* 8(3): 17–22.

[7] Syafii, Syafii, Yona Mayura, and Muhardika Muhardika. 2020. "Strategi Pembebanan PLTS Off Grid Untuk Peningkatan Kontinuitas Suplai Energi Listrik." *Jurnal Rekayasa Elektrika* 15(3).

[8] Wahyudi, D, D Retno, and N Hidayah. 2022. "Inovasi Daur Ulang Sampah Plastik Menjadi Produk Yang Memiliki Nilai Jual." *Prosiding HUBISINTEK*: 361–64.

[9] Aziz, Firdaus M. 2020. *Metode Penelitian*. 2nd ed. depok: Khalifah Mediatama.

[10] Nuraini, R. (2022). *Strategi Pemasaran Digital Untuk Meningkatkan Daya Saing UMKM di Geprek Rasya Q* (Doctoral dissertation, Universitas Hayam Wuruk Perbanas Surabaya).