

THE MOTIVATION OF CRIMINALITY DURING THE COVID-19 PANDEMIC IN CENTRAL SULAWESI

Fadjryani¹, Wawan Saputra^{2*} ^{1,2}Tadulako University, Palu, Central Sulawesi

*e-mail: wawansaputra21s05p@gmail.com

ABSTRACT

With the news of the crime were often pushed in a variety of digital platforms and non- digital and criminal acts that are still happening in the community, make this topic endlessly to be discussed. Moreover, during the current pandemic, so many demands for life are not in line with the situation as a result of the implementation of the lockdown policy and the implementation of restrictions on community activities (IRCA) from the government which requires some people to be willing to lose their livelihood. Meanwhile, out of 100,000 people in Indonesia, 140 of them are at risk of being exposed to crime. The high crime rate is influenced by several factors such as education, less strict laws, high unemployment and inadequate wages. The purpose of this study was to determine the characteristics of crime and determine the factors that influence the occurrence of criminal acts in Central Sulawesi during the Covid-19 pandemic. This type of research is a type of descriptive qualitative research and descriptive quantitative. The data used in this study is secondary data from the Central Statistics Agency and the Central Sulawesi Regional Police. The research method used is multiple linear regression. The results of this study show that the characteristics of crime in Central Sulawesi during the pandemic, namely ordinary theft cases became the highest indicator in criminal cases, while theft in the family became the lowest indicator in criminal cases. In addition, it is known that the dominant criminal acts are carried out by men with self-employed and unemployed jobs, with the last education being high school or equivalent. Partially, the variable Number of Poor People has a significant effect on crime that occurs in Central Sulawesi and simultaneously or together the four variables, namely education, unemployment, Gross Regional Domestic Product (GRDP) and Number of Poor Population have an effect on the occurrence of crime in Central Sulawesi. The result of the coefficient of determination in this study was 79.99% it means that the four independent variables are able to explain the dependent variable of 79.99% and the remaining 20.01% are other variables that have not been used as variables in this study.

Keywords: Crime, Education, Unemployment, Number of Poor Population, GRDP

Cite: Fadjryani, & Saputra, W. (2022). The Motivation of Criminality During the Covid-19 Pandemic in Central Sulawesi. *Parameter: Journal of Statistics*, 2(2), 10-17. <u>https://doi.org/10.22487/27765660</u>. 2022.v2.i2.15680



Copyright © 2022 Fadjryani & Saputra. This is an open-access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.

^{*}Received: Nov 2021; Reviewed: Dec 2021; Published: June 2022

INTRODUCTION

Crime is one of the main recurring problems in many countries, both developed and developing, and is difficult to avoid. Indonesia is one of the developing countries with moderate crime rates compared to South America, Iraq and Colombia, which are the top three countries with the highest crime rates in the world. Indonesia has a moderate crime rate in the world, but there is no denying that crime is one of the main problems facing Indonesia (Rahmalia et al, 2019).

According to the Data on Crime Reports in Central Sulawesi in 2020, the Central Sulawesi regional police noted that the highest number of reported criminal cases of the five types of crimes studied were ordinary theft with 1144 reported criminal cases and 455 resolved criminal cases. Likewise, what happened in 2021 from January to August, it was noted that the highest criminal cases were ordinary theft cases, as many as 738 cases were reported and 339 cases were resolved.

According to the head of the Central Sulawesi regional police (2021), reports of criminal acts in Central Sulawesi have increased during the pandemic. Thus, many criminal acts still occur every year in Central Sulawesi. Meanwhile, the crimes that can be resolved on average are still far below the reported crimes. This shows that there is still a lack of security and justice being enforced in Indonesia. The number of criminal cases gives controversy to many people. In addition to the pressure factor of the soaring economic needs of the perpetrators, crime also occurs due to the negligence of the victim. So that it provides a lesson for us about the importance of being vigilant about personal safety.

The high crime rate is influenced by several factors such as education, less strict laws, high unemployment and inadequate wages. When viewed from the aspect of education in Indonesia, it can be seen that there are still many children who have not received adequate educational facilities with a minimum period of 12 years of compulsory education. So that it requires attention from the government, especially the remote communities. In addition, an indicator that contributes to the emergence of the crime rate is unemployment. The high unemployment rate is directly proportional to the high poverty rate in Indonesia, especially in Central Sulawesi Province. Therefore, an analysis to determine the characteristics and how the influence of the factors causing crime in Central Sulawesi Province is very necessary, in order to provide alternative information to the relevant agencies to overcome the problem of crime. One way that can be done in seeing the effect of the dependent variable on the independent variable is using the regression analysis method. Linear regression is divided into simple linear regression and multiple linear regression. Multiple linear regression is an algorithm used to explore the pattern of the relationship between the dependent variable and two or more independent variables (Uyanik & Guler, 2013).

Several studies that have been carried out related to regression analysis include the regression analysis of the Padilah and Adam (2020) research, multiple linear regression analysis in estimating the productivity of rice plants in Karawang Regency. Likewise with the research of Khairani and Ariesa (2019) in the analysis of the factors that influence the crime rate of North Sumatra (economic approach). The difference between this study and what the researchers did is in the data, the variables used to see the motives for criminality during the COVID-19 pandemic in Central Sulawesi Province. Based on the results of previous studies, the authors are interested in studying the characteristics of crime and the factors that influence crime during the COVID-19 pandemic in Central Sulawesi.

MATERIALS AND METHODS

1. Data Sources

The data in this study is secondary data obtained from the publications of the Central Sulawesi BPS Province and conducted interviews with the Central Sulawesi Regional Police. In addition to conducting interviews, data collection in this study is observation, namely by using the five senses to observe and examine existing cases and conditions. The population and samples used in this study were districts/cities in the province of Central Sulawesi with a total of 13 districts/cities.

2. Research Variables

The variables used in this study include the crime rate as the dependent variable and the independent variable in the study, namely the level of education as measured by the number of students who are able to complete education up to high school, then the unemployment rate as measured by the number of workers of working age who are not working, and Gross Regional Domestic Product (GRDP).

3. Methods

The method used in this study is multiple linear regression. According to Montgomery (1992) if you want to examine the relationship or influence of two or more dependent variables on the independent variable, the regression model used is the multiple linear regression model. Multiple linear regression analysis is an extension of simple linear regression. In general, the multiple linear regression model can be expressed in the following equation

$$Y_{i} = \beta_{0} + \beta_{1} x_{1i} + \beta_{2} x_{2i} + \beta_{3} x_{3i} + \dots + \beta_{k} x_{ki} + \varepsilon_{i}, i = 1, 2, 3 \dots, n$$
(1)

4. Data analysis

The data analysis in this study is as follows:

- 1. Classical Assumption Testing. This test consists of normality test, multicollinearity test, heteroscedasticity test, and autocorrelation test. The assumption to get a good regression model is that the data distribution is normal or close to normal. If the data is not normally distributed, it is necessary to transform the data first. Furthermore, a good regression model is a regression model that does not occur multicollinearity, heteroscedasticity, and autocorrelation (Ndruru et al, 2014).
- 2. Hypothesis test. After all the assumptions of the regression model are met, the next step to determine whether the proposed hypothesis is accepted or not is to perform a simultaneous test (F-U) and Partial test (T-test). The F test was conducted to find out whether all the independent variables together had a significant effect on the dependent variable. While the T-test was carried out to find out whether in the regression model, the independent variable partially had a significant effect on the dependent variable (Sulistyono & Sulistiyowati, 2017).
- 3. Determination of multiple linear regression models or regression parameters with least squares estimation (Walpole et al, 2011).
- 4. The goodness of the regression model can be measured from the value of the coefficient of determination (R2) (Widiyawati & Setiawan, 2015). The value of the coefficient of determination ranges from 0 to 1. If the value is close to 1, it can be said that the influence of the independent variable on the dependent variable is large. This means that the model used is good to explain the influence of these variables (Ndruru et al., 2014).
- 5. Interpret and draw conclusions.

RESULTS AND DISCUSSION

1. Classical Assumption Test Results

a. Normality

The normality test was carried out using the Shapiro test, the data was said to be normally distributed if the P-Value value > 0.05. The results of the normality test can be seen in table 1 below.

Table 1. Results of Normality		
Shapiro Test		
W = 0.915	P - Value = 0.254	

Based on the table of normality test results above, it can be seen that the P-Value is 0.2534. So it can be concluded that the data is normally distributed.

b. Multicollinearity

The multicollinearity test was carried out using the VIF value, the data was said to have no symptoms of multicollinearity if the VIF value was < 10. The VIF value of each independent variable can be seen in table 2 below.

Table 2. Multicollinearity Test Results

	X ₁	\mathbf{X}_2	X 3	X 4
VIF	2.441	2.462	1.810	1.241

Based on the results of the multicollinearity test above, it can be seen that the VIF results on all independent variables are VIF < 10 where the VIF values are 2.441, 2.462, 1.810 and 1241. So it can be concluded that the data does not have symptoms of multicollinearity.

c. Heteroscedasticity

The heteroscedasticity test was carried out using the studentized Breusch-food test, the data was said to have no symptoms of heteroscedasticity if the P-Value value > 0.05. The results of the heteroscedasticity test can be seen in table 3 below.

Studentized Breusch-Pangan test		
BP = 2.56	df = 4	P-Value = 0.633

Based on the results of the heteroscedasticity test above, it can be seen that the P-Value value is 0.633. So it can be concluded that the data does not contain symptoms of heteroscedasticity in the model. all independent variables in this model have the same (homogeneous) distribution of variance.

d. Autocorrelation

The autocorrelation test was carried out using the Durbin Watson test, the data was said to have no autocorrelation symptoms if the P-Value value was > 0.05. The results of the autocorrelation test can be seen in table 4 below.

Table 4. Autocorrelation Test Results

Durbin Watson test			
Lag = 1	Autocorrelation = - 4.79	dw = 2.853	P-Value = 0.192

Based on the results of the autocorrelation test above, it can be seen that the P-Value value is 0.192. So it can be concluded that the data does not have symptoms of autocorrelation in the model.

2. Hypothesis Test

a. Simultaneous Test (F-test)

Simultaneous test (F-test) was conducted to determine whether all independent variables together have a significant effect on the dependent variable. The results of the simultaneous test (F-test) can be seen in table 5 below.

F-test		

Table 5. Simultaneous Test Results

The initial hypothesis and alternative hypotheses in the F-test are:

 H_0 : there is no significant effect of the independent variable on the variable bound.

 H_1 : there is a significant effect of the independent variable on the dependent variable.

Based on the picture above, it is known that the P-Value value is 0.00674. because the P-Value is smaller than 0.05. So reject H₀. So it can be concluded that simultaneously the variables of education, unemployment and GRDP have an effect on crime that occurs in Central Sulawesi.

b. Partial Test (T-test)

Partial Test (T-test) was conducted to determine whether in the regression model, the independent variable partially has a significant effect on the dependent variable. The results of the partial test (T-test) can be seen in table 6 below.

Model	T value	P-Value
Intercept	3.532	0.00771
\mathbf{X}_1	1,663	0,1349
X_2	1,540	0,1622
X_3	-3,968	0,0041
X_4	1,919	0,0912

Table 6. Partial Test Results

The initial hypothesis and the alternative hypothesis on the t-test are: H_0 : there is no significant effect of the independent variable on the dependent variable.

 H_1 : there is a significant effect of the independent variable on the dependent variable.

a) Education Variable

P-Value = 0.1349 so P-Value > 0.05, meaning that H_0 is rejected. Thus, the education variable partially does not have a significant effect on the variable number of crimes.

- b) Unemployment Variable P-Value = 0.1622 so P-Value > 0.05, meaning that H₀ is rejected. Thus, the unemployment variable partially has no significant effect on the variable amount of crime.
 - c) Variable Number of Poor People
 P-Value = 0.0041 so P-Value <0.05, meaning that H0_{is} rejected. Thus, the variable number of poor people partially has a significant effect on the variable number of crimes.
 - d) GRDP Variable P-Value = 0.0912 so P-Value > 0.05, meaning that H₀ is rejected. Thus, the GRDP variable partially has no significant effect on the crime variable.

3. Multiple Linear Regression Analysis

The results of multiple regression analysis with the least squares estimate can be seen in table 7 below.

Model	Estimate
Intercept	2375
\mathbf{X}_1	-34.48
X_2	-80.66
X_3	-97.38
X_4	-0.0008027

Table 7. Multiple Linear Regression Results

Based on the results of multiple linear regression above, multiple linear regression equations can be made as follows:

$$Y = 2375 - 34.48 X_1 + 80.66 X_2 - 97.38 X_3 - 0.0008027 X_4$$
(2)

Based on the results of multiple linear regression and the equation then:

- a. The constant value 2375 means is if the four independent variables, namely education, unemployment, the number of poor people, and GRDP are 0 then the number of crimes in Central Sulawesi is 2375 cases.
- b. The education coefficient value of 34.48 is negative, meaning that if the other independent variables have a fixed value and education increases by 1 unit, it will result in a decrease in criminal acts of 34.48 cases in Central Sulawesi.
- c. The coefficient value of 80.66 unemployment is positive, meaning that if the other independent variables have a fixed value and unemployment increases by 1 person, it will result in an increase in criminal acts of 80.66 cases in Central Sulawesi.
- d. The coefficient value of 97.38 the number of poor people is negative, meaning that if the other independent variables are fixed and the number of poor people increases by 1 person, it will result in a decrease in criminal acts in 97.38 cases in Central Sulawesi.

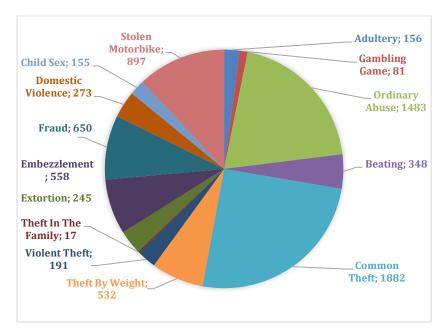
e. The coefficient value of 0.0008027 GRDP is negative, meaning that if the other independent variables are fixed and GRDP increases by 1 rupiah, it will result in an increase in criminal acts in North Sumatra 0.0008027 cases.

4. Coefficient of Determination

The goodness of the regression model can be measured from the value of the coefficient of determination (R^2) . The value of the coefficient of determination can be seen in table 8 below.

Table 8. Coefficient of Determination Result			
Model	R Square	Adjusted R Square	Residual Standard error
1	0.799	0.699	15.56

Based on the results of the coefficient of determination above, the adjusted R-square value is 0.7999, which is 79.99%. The remaining 100% - 79.99% = 20.01%. This means that the four variables of education, unemployment, the number of poor people and GRDP are able to explain the dependent variable of 79.99% and the remaining 20.01% are other variables that have not been used as variables in this study.



5. Characteristics and Factors Affecting Crime During a Pandemic Central Sulawesi

Figure 1. Crime Diagram During a Pandemic in Central Sulawesi

Based on the above analysis, partially from the four variables, it turns out that only the number of poor people has a significant effect on crime that occurs in Central Sulawesi. This indicates that there are other factors that can lead to criminal acts and it can also be interpreted that some of the independent variables used are not optimal so they cannot influence criminal acts that occur in Central Sulawesi

in criminal cases during the pandemic in Central Sulawesi. Meanwhile, theft in the family is the lowest indicator in the crime case. Some of the motives for the occurrence of crime in Central Sulawesi are the high necessities of life that are not in accordance with the income earned because the income earned is still lacking. A moral crisis with rampant theft usually destroys the quality of the nation by thinking without considering the consequences from all sides so that it affects the morale of every human being who affects the quality of the nation. Several types of crime that occur have an impact on the perpetrators and residents around the scene. It creates unrest for local residents so that vigilance continues to increase but there is still negligence as the main cause of crime which is often ignored. This raises a point of view that is controversial from various sides. The moral quality of an educated person has been destroyed by criminality. The declining mindset in acting well has resulted in a decrease in the level of competitiveness and quality of every human being in the nation.

Based on interview data obtained from the Central Sulawesi regional police, it is known that the dominant crimes are committed by men who are self-employed and unemployed. In addition, the dominant crime is committed by people with the last education of high school equivalent. This shows that there is a need for educated moral education both from one's internal and external environment. In addition to moral education, most of the criminal acts committed by a person are caused by the urgency of soaring economic needs and negligence which is often ignored by the target perpetrators.

Based on the diagram above, the theft case is the highest case, both ordinary theft and other types of theft. This illustrates that there are still many people with low incomes who encourage these people to commit theft. Cases of Domestic Violence (CDV) are also cases with the highest number of cases this is based on low income, but many are also based on romantic feuds between husband and wife. With the high number of cases of theft, this can be a benchmark for the welfare of the people in Central Sulawesi, which is still low.

CONCLUSION

The conclusion that can be drawn from the research can be seen that the characteristics of crime in Central Sulawesi during the pandemic, namely ordinary theft cases are the highest indicator in criminal cases, while family theft is the lowest indicator in criminal cases. In addition, it is known that the dominant criminal acts are carried out by men with self-employed and unemployed jobs, with the last education being high school or equivalent.

Based on the results of the partial test, the variable number of poor people has a significant effect on crime that occurs in Central Sulawesi. However, simultaneously or together the four variables, namely education, unemployment, GRDP and the number of poor people have an effect on the occurrence of crime in Central Sulawesi. The result of the coefficient of determination in this study was 79.99%.

This shows that there is a need for educated moral education both from one's internal and external environment. In addition to moral education, most of the criminal acts committed by a person are caused by the urgency of soaring economic needs and negligence which is often ignored by the target perpetrators.

REFERENCES

Badan Pusat Statistik (BPS). (2019). *Sulteng Dalam Angka 2020*. Publikasi BPS, Sulawesi Tengah. Badan Pusat Statistik (BPS). (2020). *Sulteng Dalam Angka 2021*. Publikasi BPS, Sulawesi Tengah. Kartono. (1999). *Patologi Sosial*. Jakarta: Raja grafindo Persada.

- Khairani, R., & Ariesa, Y. (2020). Pengaruh Kriminalitas Terhadap Pertumbuhan Ekonomi Sumatera Utara. *Jurnal REP (Riset Ekonomi Pembangunan)*. Vol.5 (2)
- Montgomery, D.C., Peck, E.A., & Vining, G.G. (1992). *Introduction to Linear Regression Analysis*. Toronto: John Wiley & Sons.
- Ndruru, R. E., Situmorang, M., & Tarigan, G. (2014). Analisa faktor-faktor yang mempengaruhi hasil produksi padi di deli serdang. Saintia Matematika. Vol. 2 (1), pp: 71-83.
- Padilah, T, N., & Adam, R,I. (2019). Analisis Regresi Linier Berganda Dalam Estimasi Produktivitas Tanaman Padi Di Kabupaten Karawang. FIBONACCI: Jurnal Pendidikan Matematika dan Matematika, Vol.5(2)
- Polisi Daerah Sulawesi Tengah (POLDA SULTENG). (2020). Laporan Tindak Pidana Kriminalitas Di Sulawesi Tengah Tahun 2020. Sulawesi Tengah.
- Polisi Daerah Sulawesi Tengah (POLDA SULTENG). (2021). Laporan Tindak Pidana Kriminalitas Di Sulawesi Tengah Tahun 2020. Sulawesi Tengah.
- Rahmalia, S., Ariusni., & Triani, M. (2019). Pengaruh Tingkat Pendidikan, Pengangguran , Dan Kemiskian Terhadap Kriminalitas Di Indonesia. Jurnal Kajian Ekonomi dan Pembangunan. Vol.1 (1), Hal 21-36.
- Sulistyono & Sulistiyowati, W. (2017). Peramalan produksi dengan metode regresi linier berganda. Prozima. Vol. 1 (2), pp: 82-89.
- Uyanik, G. K., & Guler, N. (2013). A study on multiple linear regression analysis. Procedia-Social and Behavioral Science. Vol. 106, pp: 234-240.

- Widiyawati & Setiawan. (2015). Analisis faktor-faktor yang mempengaruhi tingkat produksi padi dan jagung di kabupaten lamongan. Jurnal Sains dan Seni ITS. Vol. 4 (1), pp: 103- 10.
- Walpole, R. E., Myers, R. H., Myers, S. L., & Ye, K. (2011). Probability & Statistics for Engineers & Scientists (9th ed.). USA: Prentice Hall.