Mapping Criminality During A COVID-19 Pandemic in Lumajang District

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Abstract. During the Covid-19 pandemic, it's not just health, but it also creates economic problems. Just as an economic downturn is likely to increase street crimes such as thieves and muggers. The purpose of this study is to discover and map crime in Lumajang district and describe the reasons for the increase in theft during the Covid-19 pandemic. This research is a qualitative research with a phenomenological approach. This research method seeks to reveal the universal meaning of the phenomenon experienced by the Lumajang community and is mapped based on the location of street crime using GIS (Geographic Information System). The research data was taken from various interviews and field observations that focused on the increase in street crime during the Covid-19 pandemic in Lumajang Regency by conducting an analysis of criminological theory, which then the results of this study were presented in the form of Mapping through GIS. The benefit of this research is to determine the increase in street crime during a pandemic in the form of mapping through the Geographical Information System.

Keywords: Covid-19, street criminality, and geographic information systems

1. Introduction

Coronavirus or now we know as Covid-19 is a type of infectious disease caused by the newly discovered type of Coronavirus, which has been entered in Indonesia since March 2, 2020, ago. It turns out that this virus do not only attacks the health field but also attacks the field of the Indonesian economy thus making the Indonesian economy more deteriorating.

Since the emergence of economic problems, of course, it has led to the emergence of social inequality among the people which has led to the emergence of crime. During this pandemic, the number of frequent crimes is a form of street crime from data obtained "crimes occurring throughout Indonesia increased by 38.45% based on data in the 23rd and 24th weeks of 2020 or an increase of 1,632 cases. In fact, 4,244 cases in week 23 and 5,876 cases in week 24"[1].

Seeing the current situation, which is very difficult, causes various changes in human behavior. People who are not strong enough to survive in lawful ways do shortcuts that are contrary to the law. As John Dollard and Neal Miller [2] said "The Frustrated Theory of Aggression", some people commit certain instrumental crimes, property crimes, to meet their needs. So, it makes sense if people feel alert to potential crimes in the midst of the COVID-19 pandemic".

And also its release Permenkumham No. 10 of 2020 on Terms of Assimilation and Right of Integration for Inmates and Children in order to Prevent and Counter the Spread of Covid-19, Kepmenkumham No. M.HH-19. PK.01.04.04 Year 2020 on The Expenditure and Release of Inmates and Children through Assimilation and Integration in order to Prevent and Counter the Spread of Covid-19, (Surat Edaran Ditjenpas No. PAS-497.PK.01.04.04 1 Mei 2020), nearly 40,000 inmates have been returned to families and communities. This raises the pros and cons of inter-community
relations with the government. And also during this pandemic, many companies and industries experienced a decrease in turnover so that in the event of a decrease in the number of workers with layoffs system (layoffs) that caused the number of unemployed in society is increasing.

Meanwhile, daily needs for both yourself and your families such as eating and drinking continue to run, but income or income does not exist. This then leads to the emergence of an urge to meet the needs of life that will encourage a person to commit crimes, such as "stealing, deceiving, robbing, and so on". The threat of crime can also occur on a large scale. A heavy-level criminal group that wants to take a chance amid the narrowness of many people [3].

Lumajang Regency, East Java with a population of 1,108,060 with an area of 1,790.90 km² and a population of 618 people/km² (Badan Pusat Statistik Kabupaten Lumajang : 2014). One of the areas affected by the Covid-19 pandemic with a total of 243 people confirmed positive COVID-19. (Dinas Kesehatan Kabupaten Lumajang: 2020 [4].

Table 1 COVID 19 Distribution Data

| District       | Confirmation | Recover | Died |
|----------------|--------------|---------|------|
| Tempursari     | 1            | 0       | 1    |
| Pronojiwo      | 1            | 1       | 0    |
| Candipuro      | 13           | 11      | 1    |
| Pasirian       | 17           | 10      | 1    |
| Tempeh         | 16           | 10      | 1    |
| Sumbersuko     | 8            | 4       | 0    |
| Lumajang       | 48           | 30      | 2    |
| Tekung         | 13           | 9       | 0    |
| Kunir          | 42           | 28      | 5    |
| Yosowilangun   | 6            | 2       | 1    |
| Jatiroto       | 33           | 20      | 5    |
| Rowokangkung   | 9            | 4       | 0    |
| Randuagung     | 3            | 1       | 2    |
| Sukodono       | 19           | 12      | 1    |
| Padang         | 1            | 1       | 0    |
| Senduro        | 1            | 0       | 0    |
| Pasrujambe     | 0            | 0       | 0    |
| Gucialit       | 1            | 1       | 0    |
| Klakah         | 6            | 6       | 0    |
| Kedungjajang   | 6            | 4       | 2    |
| Ranuyoso       | 0            | 0       | 0    |

| Amount         | 243          | 154     | 22   |

Source: Dinas Kesehatan Kab.Lumajang, 2020
From the large number of infected people based on the data above, Lumajang Regency is clearly affected by other than health and economy with various regional economic problems, namely decreased community income due to the Covid-19 outbreak, because most of the residents of Lumajang Regency have livelihoods as farmers and traders. In addition, the number of open unemployed reached 13,831 people [5].

As a result of economic problems, it also causes problems - problems in the form of social deviations that the emergence of theft, snatching and Motorcycle Deprivation which is an act of road criminality.

From the above problem, researchers compiled a study in the form of mapping street criminality during COVID-19 in Lumajang Regency by using geographic information system (GIS) media. Geographic information system (GIS) is an information system used to enter, store, recall, process, analyze and produce geographic or geospatial differential data to support decision making in the planning and processing of land use, natural resources, transportation environment, city facilities, and public services. The purpose of this study is to find out if there is an increase in street crime in the COVID-19 period in Lumajang Regency in the form of mapping through geographic information systems.

2. Methods

The research method that seeks to uncover the universal meaning of the phenomenon experienced by Lumajang people and in maps based on the point of location of street crime using GIS (Geographic Information System). Research data are taken from various interviews and field observations focusing on street crime during the Covid-19 pandemic in Lumajang Regency which was then presented in the form of Mapping through SIG.

3. Results and Discussion

During the Covid-19 pandemic it is not just health, economic collapse as many workers initially had incomes, due to the decrease in production results of many companies or industries to reduce the number of workers (PHK) by conducting Layoffs on a large scale, resulting in an increase in the number of unemployed.

In the midst of the Covid-19 pandemic, people are encouraged to stay home to break the Covid-19 link. There are some people who pay attention to the government's appeal, but not a few are breaking about it. Because most Lumajang residents have a livelihood as farmers and traders. If they do not work outside the home, they cannot provide for their families. There is also its release Permenkumham No. 10 of 2020 on Terms of Assimilation and Right of Integration for Inmates and Children in order to Prevent and Counter the Spread of Covid-19, Kepmenkumham No. M.HH-19. PK.01.04.04 Year 2020 on The Expenditure and Release of Inmates and Children through Assimilation and Integration in order to Prevent and Counter the Spread of Covid-19, (Surat Edaran Ditjenpas No. PAS-497.PK.01.04.04 1 Mei 2020[6], nearly 40,000 inmates have been returned to families and communities. This raises the increase the number of unemployed people in the community. Meanwhile, daily needs for both themselves and the family such as eating and drinking continue to run, but zero income. This then leads to the emergence of an urge to meet the needs of life that will encourage a person to commit crimes, such as “stealing, deceiving, robbing and so on” (Hadiwardoyo, 2020). And this may lead to an increase in street crime.

3.1 Characteristics of Lumajang Regency

- The astronomical city of Lumajang is located at 112°5'-113°22' East Longitude and 7°52'-8°23' South Latitude. With an area of 1,790.90 km² the city is divided into 20 sub-districts and 202 villages/villages with the following territorial boundaries:
  - North: Selokbesuki Village, Kutorenon, or Sukodono Sub-District.
• East: Sumberejo Village, Selokbondang, Urang Gantung (Lumajang Sub-District)
• South: Labruklor Village, Labrukkidul, Grati (Lumajang Sub-District).
• West: Kebonagung Village, Babakan, Klanting (Sukodono Sub-District)

The geographical location of Lumajang Regency is divided into the northern hemisphere, a dry and barren area of hills and mountains, while in the mid-south part of the low to highlands that are fertile with wet climate, and the southern hemisphere is lowland and high where conditions are less fertile and dry. The administrative boundaries of Lumajang Regency as follows:

- The North borders Probolinggo Regency;
- The East is bordered by Jember Regency;
- The South borders the Indian Ocean;
- West bordering Malang Regency;

For the population of Lumajang Regency, East Java with a population of 1,108,060 with an area of 1,790.90 km² and a population of 618 people/km² [7].

3.1.1 Field Conditions during COVID-19 Pandemic

Lumajang Regency is one of the areas exposed or infected with Covid-19, from 29 districts and 9 cities in East Java, Lumajang Regency ranks 8th in the number of positive people with COVID-19 which is 243 positive confirmed COVID-19. (Dinas Kesehatan Kabupaten Lumajang: 2020). With this activity, the local government took a policy by temporarily closing traditional and modern markets, places of worship, and other entertainment venues which were carried out from March to June, there were restrictions on operating time, for the market time limit from 05:00 am to 10:00 am Meanwhile, entertainment venues must be closed until 08.00 pm. However, the local government still allows people to leave the house but there are raids carried out by the local Traffic Police to people who do not wear masks when out of the house. This is what causes the streets to be deserted and human activities at 17.00 WIB until night., This is what causes the streets to be deserted, which provides an opportunity for criminals to commit crimes such as robbery, robbery, theft, and confiscation of motorbikes to people who are still active on the streets.

3.1.2 Security Conditions during the covid-19 pandemic

From the results of field observations to obtain information based on the phenomenon experienced by the community conducted by researchers and then by becoming data on the case of street criminality during the COVID-19 pandemic, starting from April-June, there are 35 cases, here are the details:

| Table 2. Details of Lumajang District Street Crime Case April-June 2020 |
|---------------------|------------------|
| **District** | **Case** |
| Lumajang | 8 |
| Pasirian | 2 |
| Tempeh | 3 |
| Sumbersuko | 2 |
| Kunir | 3 |
| Yasowilangun | 2 |
| Jatiroto | 5 |
| Sukodono | 2 |
| Klakah | 8 |
| **Amount** | **35** |
Compared to the previous month based on data obtained the number of cases in January-March cases of street criminality throughout Lumajang regency numbered 17 cases (Satreskrim PORLES Lumajang:2020). So, it can be concluded that during the COVID-19 pandemic the number of cases of street criminality in the Lumajang Regency increased initially 48% to 55% so that it found a 7% rate of street criminality during the Covid-19 pandemic in Lumajang Regency.

**Graph 1.** Graph of street crime before and during the COVID-19 pandemic

The data then input in the map by providing the location point of the case of street criminality throughout Lumajang Regency during the COVID-19 pandemic by using geographic information system (GIS) media. GIS itself is an information system used to enter, store, recall, process, analyze and produce geographic or geospatial differential data to support decision making in the planning and processing of land use, natural resources, transportation environment, city facilities, and public services. The purpose of this study is to find out if there is an increase in street crime during COVID-19 in Luamajang Regency in the form of mapping through geographic information systems. So that the public can easily understand the results of data processing obtained by presenting the location of street criminality points in lumajang regency area.
4. Conclusion

During the Covid-19 pandemic, not only health problems but also the economy, namely the fall and decline of the people's economy due to this pandemic with government regulations advocating to stay home, the number of companies and industries due to the pandemic of production turnover so there is a problem that, many companies and industries reduce workers, and the emergence of government policies such as inmate assimilation programs or returning to community or family environments were to reduce the capacity of inmates who are considered excessive and aim to reduce the impact of COVID-19 spread. This is what raises pros and cons in the eyes of the community due to the emergence of various problems, the number of unemployed in the community while the need for daily life to meet both themselves and for the family continues to run, which then led to the emergence of an urge to meet the needs of life that would encourage a person to commit a crime, such as "stealing, deceiving, robbing, and so on". The threat of crime can also occur on a large scale. A criminal group that wants to take a chance amid the narrowness of people. (Hadiwardoyo, 2020).

In Lumajang Regency alone, the number of people confirmed as positive as COVID-19 of 243 confirmed positive COVID-19. (Dinas Kesehatan Kabupaten Lumajang: 2020). Then with the increasing number of people infected so that the local government carried out the policy by temporarily closing the gathering place such as markets, places of worship, schools, and entertainment venues. Then to restore the pace of the economy in the community, the local government created a new policy by limiting the opening hours of markets and entertainment venues until 04.00 PM. This creates a quiet street with human activity during the hours above 17.00 WIB until night, which is then utilized by criminals for the opportunity
of crime to the residents who are still doing activities outside the house because the perpetrators are mostly reasoned because the insistence of economic needs because income is insufficient even not there at all. In Lumajang Regency alone the number of street criminal cases in January to March recorded only 17 cases (Satreskrim PORLES Lumajang, 2020). From April to June with restrictions on market opening times, shops and entertainment venues, the number of street criminals increased to 35 cases.

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