Abstract

Globalization and the development of information technology have led to the emergence of crimes that require appropriate policing efforts. One such effort is predictive policing, which in Indonesia is aligned with the PRESISI Police framework, emphasizing Predictive, Responsible, and Fair Transparency. This paper aims to analyze the "Polisi RW" program as an implementation of predictive policing in the jurisdiction of Polda Metro Jaya. The analysis is conducted using a qualitative-descriptive method. Data was collected through a literature review of books, magazines, newspapers, and internet sites, as well as other sources. Qualitative data analysis was conducted. The results indicate that predictive policing utilizes spatial and temporal prediction and crime profiling to prevent crime. In Indonesia, the implementation of predictive policing is currently being carried out through the "One Police One Village" program, which can be intensified through the RW Police program. The RW Police program places police personnel in a village or neighborhoods (RW-level) around the residence or place of service of the personnel, increasing the efficiency of human resources by placing them in areas that require greater supervision in the community order at the neighborhood level, which is closer to the daily dynamics of the community.

Keywords: RW Police; Predictive Policing, One Police One Village Program; Polda Metro Jaya

Introduction

Globalization has impacted many aspects of human life, promoting freedom and removing barriers to goods and trade, while also aiding capital flows and international migration in an effort to create an integrated world economy (Yameogo et al., 2021). However, it has also given rise to new types of crimes that were previously unseen. These crimes are driven by infrastructural growth, easier access to information, and increased threats of crime, leading to a continuous escalation of criminal activity that requires more sophisticated solutions to overcome (Sumirat et al., 2021).

The Indonesian National Police (Polri) is responsible for maintaining public order and enforcing the law. In response to the increasing rate of crime, the National Police has implemented the PRESISI Police concept, which stands for Predictive, Responsible, and Fair Transparency (Sodik, 2021). The
Predictive aspect of the PRESISI concept emphasizes the importance of a predictive policing approach (Simon, 2013), encouraging police officers to assess potential disturbances to security and public order by analyzing appropriate knowledge, data, and methods in order to prevent crime threats as early as possible (Rinaldo et al., 2022).

The concept of predictive policing has gained popularity in recent years, with many police forces around the world adopting software and statistical data to guide their decision-making processes (Meijer & Wessels, 2019). Predictive policing encompasses various methods of addressing future possibilities using algorithmic data analysis (Egbert & Leese, 2021). This approach involves using technology, algorithms, and big data to generate predictions about people and places that are likely to experience or engage in crime in the near future (Sandhu & Fussey, 2021).

Predictive policing builds upon traditional policing practices by scaling and shortening response times (Kaufmann et al., 2019). Unlike traditional policing, which relies on the intuition of officers, predictive policing is based on mathematical algorithms that analyze vast amounts of crime data at high speed (Oktavianti & Maring, 2021). This approach facilitates early intervention and pre-emptive action, reducing the overall harm caused by crime while also increasing efficiency gains during times of austerity (Sandhu & Fussey, 2021).

Furthermore, predictive policing enhances traditional proactive policing techniques through the use of machine learning algorithms, allowing police to track individuals and areas with greater accuracy and predict when and where crimes may occur (Mugari & Obioha, 2021). Predictive policing shifts the focus of policing from reacting to crimes to preventing them from happening in the first place. It also enables the efficient deployment of resources to fight crime and plays a crucial role in reacting to criminal incidents.

The implementation of predictive policing in Indonesia aims to identify various crime patterns in society (Iskandar, 2007) by using historical crime data, both macro and micro, as a basis for predicting and preventing crime in the future (Saputra et al., 2023). Predictive policing is implemented in Indonesia by prioritizing the ability to predict situations and conditions that can become issues and problems in society. As a result, police officers are required to analyze facts, data, and information that become potential disturbances to public security and order (kamtibnas) (Widiastuti, 2022).

Predictive policing has been put into practice through the Rukun Warga (RW) Police program in Polda Metro Jaya, initiated by the Police Chief of Metro Jaya Inspector General of Police Dr. H. Fadil Imran, M.Si. This program assigns Polri personnel from various police functions to each RW in the Polda Metro Jaya area, to maintain community security and order. Personnel are placed near the homes of Polda Metro Jaya members to facilitate interactions between police and the community, and to carry out kamtibmas (public order) activities together with neighborhood administrators in their respective areas.

RW police activities are reported in the Ada Polisi application, which is analyzed by the head of the work unit and regional headquarters as part of predictive policing. The goal is to detect early signs of kamtibmas disturbances or crime incidents. For instance, in the Tamansari Sector Police, the RW Police have mapped areas where brawls are likely to occur and have monitored students who are prone to participating in such activities from schools in the Tamansari police area. These efforts have successfully provided an estimate of the level of security and order disturbances that the community may experience, allowing for the prevention of kamtibmas disturbances such as brawls through the presence of RW Police in the local neighborhood.

This illustrates one of the functions of the National Police, namely the role of Bhayangkara Pembina Keamanan dan Ketertiban Masyarakat (Bhabinkamtibmas) in collaborating with the community. The National Police has relied on the Resort Police level to implement early detection of various security problems in the community through the role of Bhabinkamtibmas (Sodik, 2021).
Bhabinkamtibmas's task is to conduct early detection by mapping community problems in their neighborhood (Rizkyandi et al., 2022), which is implemented through the one village one Bhabin policy.

The one village one Bhabin (Police Officer for Community Security and Order) policy encourages Bhabinkamtibmas as the spearhead of the police at the village level to maintain the stability of security and public order within the scope of their duties by carrying out preemptive and preventive efforts (TBNews, 2023). The policy of one bhabin per village can be intensified by implementing it at the next level, namely one police personnel per neighborhood (RW).

This paper aims to analyze the RW Police program as an implementation of predictive policing in the jurisdiction of Polda Metro Jaya. The paper analyzes two main problems: (1) the implementation of the predictive policing concept in Indonesia and (2) the RW Police program as an effort to implement predictive policing in the Polda Metro Jaya jurisdiction. This paper aims to contribute to research on predictive policing in Indonesia. The results obtained are expected to be taken into consideration by Polda Metro Jaya when implementing predictive policing in the region.

**Research Methods**

This research was carried out by analyzing qualitatively-descriptively. Qualitative method is a research method that describes the nature of the relationship between variables in research problems empirically with a lot of sharpening of mutual influence and patterns of values encountered (Moleong, 2010). The data collection technique used is a literature study or literature review, which is a research technique that analyzes data related to the problem, with data collection techniques from literature in the form of books, newspaper magazines and visits to internet sites and other sources that support research related to the RW Police Program in the Polda Metro Jaya jurisdiction. Data analysis is carried out qualitatively in stages according to Walter's model, namely collecting raw library data, coding by marking important data points for further processing, categorization, sorting into certain concepts/categories or topics related to each chapter/subchapter (Dirgala et al., 2023). In the end, conclusions were drawn based on the results of the research.

**Discussion**

**The Concept of Predictive Policing in Indonesia**

Efforts to prevent crime rely on the early detection of potential criminal activity within a community (Hutabarat et al., 2022). This can be achieved through the concept of predictive policing, which uses analytical tools to guide law enforcement agencies in decision-making, particularly in the deployment of personnel to vulnerable areas where public security and order may be at risk (Meijer & Wessels, 2019). According to Perry (2013), predictive policing involves the application of analytic techniques to identify potential targets for police intervention in order to prevent or solve past crimes through statistical predictions.

Predictive policing is a concept that has been widely adopted by police forces in developed countries. Its main goal is to identify individuals and places at high risk of criminal activity (Mugari & Obioha, 2021). There are two primary benefits to predictive policing. First, it allows law enforcement agencies to more accurately allocate resources in terms of location and time by identifying areas with a high risk of crime (Meijer & Wessels, 2019). This spatial and temporal prediction of criminal activity can help to reduce crime overall.

Secondly, predictive policing can aid in the identification of individuals who may be involved in criminal activity, whether as potential perpetrators or victims of crime (Meijer & Wessels, 2019). Perry
(2013) explains that predictive algorithms can be used to identify members of criminal groups who are at an increased risk of committing violent acts. This suggests that predictive policing can be used to profile potential future offenders and victims of crime. Figure 1 illustrates the main benefits of predictive policing, as outlined by Meijer and Wessels (2019).

![Figure 1. The main benefits of predictive policing by Meijer & Wessels (2019)](image)

Based on Meijer and Wessels' (2019) ideas, predictive policing will result in the prediction of the time and place of possible crimes as well as the ability to look for characteristics of the perpetrators. This is then used as a basis for crime prevention. In line with this, predictive policing is seen to connect technology, management practices, real-time data analysis, problem-solving and information-led policing to produce appropriate crime prevention efforts and efficient, modern and innovative police agencies (Bratton et al., 2017).

Predictive policing then is not a concept without its flaws and applications in its implementation. According to Mugari & Obioha (2021) there is a need for policymakers and police departments to address issues in the implementation of predictive policing. First, measures are needed to increase transparency in developing and implementing predictive policing. Next, closely related to transparency is the need to address the ethical and legal issues surrounding predictive policing. Lastly, predictive policing software developers and law enforcement agents must be mindful of civil rights and privacy (Mugari & Obioha, 2021).

The implementation of predictive policing in Indonesia is based on the PRESISI concept, namely Predictive, Responsible, and Equitable Transparency (Sodik, 2021). The implementation of the PRESISI concept through predictive policing in Indonesia has been carried out to handle several cases of security and public order disturbances including brawls at the West Jakarta Police Station (Saputra et al., 2023), handling the Covid-19 pandemic (Sodik, 2021), fake news cases (Sudama, 2020) and so on.

This PRESISI concept urges the application of predictive policing used to measure security and public order disturbances through intelligence analysis and appropriate methods leading to early prevention. The Precision police program is implemented in conjunction with cultural reforms within the National Police due to stagnation or even a decrease in public trust in the National Police and globalization and the development of information technology have driven VUCA (Volatility, Uncertainty, Complexity, and Ambiguity) conditions which ultimately require specific actions and innovative solutions from the police (Sumirat et al., 2021).

Furthermore, in the context of Indonesia, several weaknesses of predictive policing have been identified in Sumirat et al. (2021) which found that predictive policing has not been optimized in Indonesia due to first, there are fundamental misconceptions about the concept of predictive policing in most members of the National Police. Second, there is no specialized bureau capable of managing big data for predictive policing. Third, the implementation of predictive policing also needs to be evaluated. This is because predictive policing is a concept that has just been implemented in Indonesia, so trial and error is common to strengthen effectiveness and improve existing weaknesses (Sumirat et al., 2021).
Based on this analysis, predictive policing is a policing concept where crime prevention efforts are designed based on the results of spatial and temporal predictions and crime profiling. It is implemented in Indonesia based on the PRESISI concept, which emphasizes the measurement of security and public order disturbances through intelligence analysis and appropriate methods leading to early prevention of crime.

The RW Police Program as an Effort to Implement Predictive Policing within the Jurisdiction of Polda Metro Jaya

Throughout 2022, Polda Metro Jaya recorded 36,608 crimes in the region, which is an increase compared to 2021 with 30,124 cases (Yolandha, 2023). There are several types of law violations that are in the spotlight, including public security and order problems, traffic violations, illegal access, online fraud, illegal online loans, and others. This indicates that there are still many security and order disturbances in Polda Metro Jaya that cannot be properly prevented.

Efforts to implement predictive policing in the Polda Metro Jaya jurisdiction have been carried out by implementing the One Police One Village (RW) Program, which adapts the pre-existing One Village One Bhabinkamtibmas program based on the National Police Chief Regulation No. 07 of 2007 concerning One Village One Bhabin. One of the efforts made to support the program is to relocate personnel from the Headquarters and Polda levels to the Polres and Polsek levels. This is done to improve the quality of service to remote villages (TBNews, 2017).

The implementation of the One Village One Bhabinkamtibmas Program has been running at a fairly good level, although it has not been able to meet the needs throughout Indonesia. Based on Aziz (2020), the composition of Bhabinkamtibmas personnel who have provided guidance to one village is 4.6%, while for two villages it is 11.6%, for three villages it is 21.2%, and for four or more villages, it is 62.6%. Figure 2 shows the proportion of Bhabinkamtibmas personnel in the One Village One Bhabinkamtibmas program.

![Figure 2. The proportion of Bhabinkamtibmas personnel in the one village one Bhabinkamtibmas program](source: Aziz (2020))
The implementation of predictive policing in Indonesia highlights the important role of police officers in the process. One example is the One Village One Bhabinkamtibmas Program, where Bhabinkamtibmas (a community police officer) is responsible for mapping threat patterns of security and order disturbances in the community and making prevention efforts in partnership with the community (Prakarsa et al., 2021). This approach emphasizes the role of police officers in preemptive and preventive policing, which distinguishes it from the concept of predictive policing in other countries, where technology plays a more prominent role.

Overall, predictive policing in Indonesia is distinct because of the active role of police officers in predicting and preventing crime through programs such as One Village One Bhabinkamtibmas. By highlighting this distinction, this paper contributes to research on predictive policing in Indonesia and offers insights for the implementation of predictive policing in Polda Metro Jaya.

The implementation of predictive policing in Indonesia requires the assistance of police officers to be effective. According to Sandhu & Fussey (2021), police officers' unique expertise about specific crimes in their local jurisdiction can reduce objective prediction errors due to limited data or flawed calculations in the technology used for predictive policing. This highlights the important role of police officers in implementing predictive policing.

Bhabinkamtibmas' role in the One Village One Bhabinkamtibmas Program can be intensified by implementing the RW Police Program. This program assigns police personnel from various functions to be responsible for one neighborhood (RW) in the aspect of kamtibmas, which includes preemptive and preventive police efforts. The RW Police Program is a breakthrough of Metro Jaya Police Chief Inspector General Dr. H. Fadil Imran M.Si in reducing the crime rate. The program gives police officers the responsibility to supervise the community, establish closeness with community members, collect information, and become a liaison between Polsek/Polres and the community. This information is then used to describe the situation in the field/region against potential security and order disturbances in the community.

The RW Police plays a crucial role in implementing predictive policing based on the PRESISI idea by Kapolri Listyo Sigit Prabowo, which prioritizes reading and predicting kamtibmas problems and the police's immediate response. The members of the RW Police are police brigadiers who are physically and mentally fit, have good communication skills and knowledge of the police, and can become problem solvers in the community. They can read the response to kamtibmas situations for early detection of crime, which will then be integratively analyzed and used as a decision support system to optimize police functions preemptively and preventively, with law enforcement as a last resort (Sumirat et al., 2021).

Predictive policing involves many technical elements, including data and algorithms, people, organizations, culture, politics, ethics, law, and economics in future crime prevention efforts (Egbert & Leese, 2021). However, the implementation of predictive policing in Indonesia has been hampered by the lack of available police officers, as shown by the proportion of Bhabinkamtibmas personnel in the one village one Bhabinkamtibmas program in Figure 2. Therefore, the implementation of Polisi RW must consider the need for police human resources at the Polda, Polres, and Polsek levels in the Polda Metro Jaya jurisdiction.

POLRI PRESISI emphasizes the trend of using digital technology in policing activities in the field (Sudarto, 2022). The predictive policing model offers a new system that integrates technology to detect crime and determine crime prevention measures (Sumirat et al., 2021). Therefore, the implementation of RW Policing based on the concept of predictive policing should utilize information and communication technology to predict crime spatially and temporally, as well as to profile potential perpetrators and victims.
Figure 3 illustrates the application of RW Polisi in the predictive policing model for crime prevention. According to this framework, RW Police is an expansion of the One Bhabin, One Village program, which includes police officers, in addition to Bhabinkamtibmas, responsible for maintaining security and order in the RW area. To address the issue of limited human resources in the police, these RW Police members will be assigned to RWs near the domicile of Polda Metro Jaya members. With 10,015 Polda Metro Jaya personnel and 10,015 RWs in DKI and Agglomeration areas, it should be sufficient for each police member to be responsible for kamtibmas in one RW. Likewise, police members can perform their role in crime prevention more effectively and efficiently, with more intensive supervision in locations that have the potential for kamtibmas disturbances. Tighter supervision is possible because the scope of the community is narrower.

Conclusion

This paper aims to analyze the Polisi RW program initiated by Kapolda Metro Jaya as an implementation of predictive policing in the jurisdiction of Polda Metro Jaya. The findings show that predictive policing is a policing concept in which the design of crime prevention efforts or public order disturbances is based on the results of spatial and temporal predictions and mapping of public order disturbances. Predictive policing is implemented in Indonesia based on an emphasis on measuring public security and order disturbances through intelligence analysis and appropriate methods to conduct early prevention of crime or public order disturbances. The findings show that in the jurisdiction of Polda Metro Jaya there are still many security and order disturbances that have not been properly prevented. Therefore, predictive policing is implemented with the RW Police Program. The effort emphasizes the role of police members in conducting preemptive, and preventive policing efforts for early detection of public order disturbances. This can be intensified by placing each member of Polda Metro Jaya in accordance with his domicile to be responsible for the current kamtibmas situation at the community level. The implementation of the RW Police in the predictive policing model is carried out in all RWs in the Polda Metro Jaya jurisdiction, whose role is to create a better security situation by cooperating with the government at the RW level. This is done so as to efficiently utilize human resources and implement more intensive and equitable community policing from the RW level.
References


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