



Measuring Public Value: Internet of Things-based Public Safety in Medan City

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Received : January 19, 2026; Accepted : April 21, 2026

DOI 10.25299/jiap.2026.27007

Abstract

Era of digital transformation, the Medan City Police (Polrestabes Medan) have adopted Internet of Things (IoT) based technology encompassing GPS-equipped patrol vehicles and Handy Talkie (HT) communication systems as a strategic innovation to enhance service quality and generate public value. Despite this technological investment, the extent to which IoT implementation has delivered tangible benefits to the community remains critically underexplored. This study aims to assess public value in IoT-based public safety services in Medan City by applying Moore's (1997) Public Value framework as the analytical lens. Employing a descriptive qualitative approach, data were gathered through observation, in-depth interviews with 13 purposively selected informants, and documentation at the Samapta Unit of Polrestabes Medan. Findings reveal that public value has not been fully realized across four key indicators of Moore's framework. First, effectiveness, efficiency, and service coverage remain suboptimal, as crime rates continue to rise, IoT deployment is geographically uneven, and community outreach is virtually absent. Second, while the program broadly aligns with community needs for safety and security, public trust and satisfaction remain low. Third, although police leadership has translated its vision into IoT-based programs, the absence of dedicated technological training for field officers reflects a lack of full operational commitment. Fourth, the community burden has not diminished, with 68% of Medan residents reporting persistent feelings of insecurity in public spaces. This study contributes novel insights by situating public value creation within the specific domain of IoT-enabled public safety — an intersection rarely addressed in the existing Indonesian public administration literature.

Keywords : Public Value, Public Safety, Internet of Things, Moore's Framework, Polrestabes Medan

Introduction

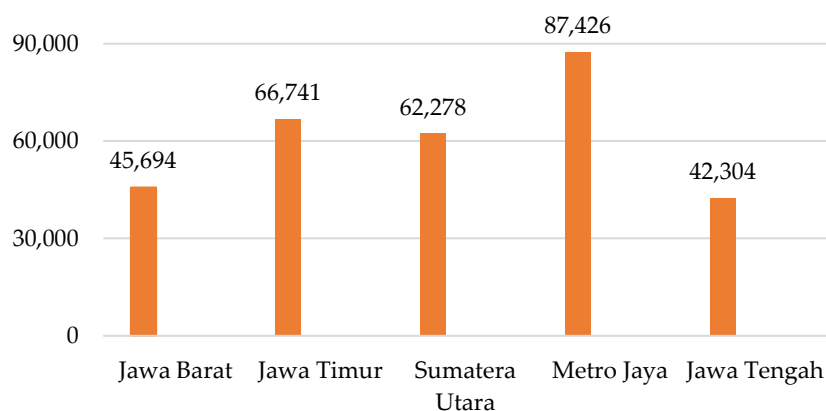
The state is responsible for fulfilling the needs of its citizens. The activities of fulfilling the needs of citizens by the state are called public services. Public services are a series of activities carried out thru government institutions to meet the needs and interests of the community, such as the need for security, peace of mind, and so on. Services are a basic function of the government in meeting the needs of the community (Bazarah, Jubaidi, & Hubaib, 2021). Public services operate in several fields such as security, education, health, transportation, and so on (Firmansyah & Rosy, 2021).

Public security also serves as an important foundation for the continuity of the state. Mukhtar (2011) defines public security as a form of ensuring the safety and order of society thru the provision of services, community protection, and law enforcement. In the era of digitalization, public security can be increasingly enhanced by utilizing technologies such as the Internet of Things (IoT), Artificial Intelligence, and so on (Koormala, Reddy, Balusa, Jillapalli, & Hanafiah, 2025; Minoli, Koltun, & Occhiogrosso, 2022; Zakiansyah & Sutabri, 2025). Thru public security, there is freedom for the community to carry out activities in public spaces without worrying about the threat of crime. Indonesia has guarantyd the continuity of public services for its citizens in the field of security. In Article 28 of the 1945 Constitution, it is explained that every citizen has the right to be free from various threats, and the state is responsible for protecting, promoting, enforcing, and fulfilling the rights of its citizens.

The police as a state institution tasked with public service in the field of security. This is stated in Law No. 2 of 2002 concerning the Indonesian National Police. In the law, it is explained that the police, as a state apparatus, play a role in maintaining public security and order, enforcing the law, providing protection, being a guardian, and serving the community to create security within the state. As a state institution that serves as a pillar of security, it is necessary for the police to implement better service management to improve public security services. Hendrayady (2023) defines public service management as the application of science and art in carrying out regulation, planning, execution of plans, and providing supporting training so that service objectives can be achieved.

As an effort to improve public services, the police are implementing innovations by utilizing technology. Medan City is one of the cities where the local police have utilized technology. One of the reasons for implementing technology in the security sector in Medan City is because Medan is a large city and a model city in North Sumatra, and the crime rate in North Sumatra is relatively high. North Sumatra ranks third as the region with the highest crime rate. More details are presented in the following graph:

Figure 1. Graph 5 Regional Police (Polda) with the Highest Crime Rates in Indonesia Based on the Number of Incidents



Source: Badan Pusat Statistik (2024)

The use of information technology provides convenience for the police in conducting security patrols, especially in crime-prone areas. The patrol fleet is equipped with a communication technology system that has sensors capable of recognizing potential criminal activities. This system is known as the Internet of Things (IoT).

Internet of Things (IoT) is defined as a technology that can be found in everyday life thru communication methods consisting of sensor technology, wireless technology, or barcodes that are interconnected with each other (Rachmadi, 2020; Zein & Eriana, 2023). IoT broadly refers to internet technology connected to smart objects thru a global network, a series of technologies that support the realization of various goals (such as sensors and machine-to-machine communication devices), and a collection of services and applications that can open new opportunities (Miorandi, Sicari, Pellegrini, & Chlamtac, 2012). Yudhanto & Azis (2019) explain that there are three benefits of IoT, including a) Improve Customer Engagement, which means enhancing user experience thru IoT automation; b) Technical Optimization, which means improving the usability of technology; and c) Reduce Waste, which means providing real-time information that helps in decision-making and resource management.

IoT can be implemented to support public security (Mona et al., 2025). More specifically, IoT-based public security contributes to enhancing situational awareness by providing real-time data thru interconnected devices and creating predictive policing because it can map crime-prone areas and deploy officers to prevent crime incidents (Davies, 2020).

Global Positioning System (GPS) and Handy Talkie (HT) are IoT-based tools used by the police to support their duties in maintaining public safety. GPS is installed in every patrol car, connected to the command center, and monitored by operators. Similarly to GPS, police officers are equipped with HT so they can communicate with each other via a wireless network. Thru HT, coordination among officers becomes faster. Additionally, there are sometimes situations where the network does not support mobile phones in certain areas, whereas HT has the capability to support long-distance communication even when the network is difficult to access (Harrison, Massey, & Kongsle, 2006).

The use of IoT-based technology can create a safe and controlled environment, which in turn will enhance public value. Public value is considered achievable when the government, thru policies, programs, and public services, can meet societal expectations by enhancing

political legitimacy, public satisfaction, and government work effectiveness. The creation of public value can also involve the private sector according to Behm, Bennington, & Cummane (2000). This is in line with O'Flynn (2007) opinion, which emphasizes collaboration, participation, and innovation regardless of which agency is doing it.

Public value is understood as a set of values and benefits generated by the government that can be felt by the community. In this context, public value emerges when the police, supported by IoT technology, can reduce crime rates, respond to complaints quickly, provide accurate information access, achieve cost efficiency in service delivery, and ultimately increase public trust in the police department.

Conceptually, in previous research conducted by (Ulrich, Gattass e Silva, & Maciel, 2020), the application of IoT in public service within the field of public administration can create public value, and attention must be paid to the understanding of service users as it relates to community needs. Public value is the value generated from achieving public satisfaction with public organizations (Moore, 1997). Chohan et al., (2023) found research results stating that the success of IoT should ideally be assessed from the public's perception of the public services used, and IoT has significant benefits for both the government and society.

Based on that concept, the fact is that in the field, the implementation of IoT in public security in Medan City still faces problems. The main issue is the level of public satisfaction with the police's public service in Medan City in improving security, which is still not optimal. Based on the researchers' field observations, the level of public satisfaction has not been achieved because the community still complains about the minimal security. This is also supported by the publication of the Dashboard Polrestabes Medan (2025), which shows that 68% of the people in Medan feel unsafe. In line with that, another issue is that the crime rate in Medan City is still increasing. Reportedly, there are more than 3,700 criminal cases in the city of Medan involving various types of crimes, such as violence, theft and robbery, drugs, and cybercrime. This is also related to the burden on the community regarding public safety, which has not diminished due to the feeling of insecurity.

The implementation of IoT requires significant costs, but it has a long-term impact on efficiency. The output generated is greater than the input (Haitaamar, Ramachandran, & Karunamurthy, 2023; I, Gustiyana, Al Furqon, Fabian, & Sari, 2024; Nidhya, Mathur, Kopare, & Chavhan, 2025). Although IoT has been implemented, the output in terms of public safety is not proportional to the costs incurred. The cost of implementing IoT in Medan City is quite high, yet crimes still frequently occur in the field. Then, not all residents of Medan City understand how to access police services other than going directly to the local police station.

IoT is a form of technology, making it something new. Generally, as a pillar carrying out tasks, training is required for officers so that the use of IoT runs optimally. Based on the Chief of Police Regulation (Perkap) No. 2 of 2025 concerning Talent Management of the Indonesian National Police, it has been explained that there are training programs to develop the talents or capacities of police officers. However, based on the researcher's field observations, IoT-based training has not yet been implemented by the police in Medan City.

Based on the literature review that the researcher has conducted, there have been many previous studies examining public value in public services. Some of these include the research conducted by Jain Gupta & Suri (2017) titled "Measuring Public Value of e-Governance Projects in India: Citizens' Perspective." This research uses the Public Value theory proposed by Moore. The results explain that the public value of e-Governance tends to increase when

there is actor capability, a flexible service process, and an increase in situational aspects. Hajar & Arma (2024) conducted a study titled "Co-Creating Public Value Into Digital-Based Public Service Innovation In The Village Governance." The research also utilizes the Public Value theory proposed by Moore. The research results explain that the innovation in the form of web-based governance implementation in Hamparan Perak Village strengthens the creation of public value due to the level of community satisfaction thru trust and community support.

This research addresses the limitations of previous studies, which mostly highlighted public value in the concept of government digitization. Digitalization of services poses significant risks for developing countries, such as the risk of personal data breaches and the need to enforce ethical codes. Additionally, the capacity and capability of officials still require attention. This research fills a more specific gap by examining public value in the digitalization of government in public security. This research examines whether the implementation of IoT in public security has tangible benefits and value for the public. The Moore framework emphasizes the importance of operational capacity in addition to legitimacy, support, and substantial value. In this study, operational capacity in the use of IoT technology will be analyzed in the creation of public value, particularly its relation to the use of IoT technology. This is in line with the increasing crime rate, so the deepening of public values should be taken into consideration. According to the Badan Pusat Statistik (2024), the increasing crime rate is accompanied by various types of crime such as robbery with violence, aggravated theft, and assault and brawling. These types of crime are more characterized as street crimes or public space crimes.

This research aims to describe the public value in public security based on the Internet of Things (IoT) in the city of Medan. Therefore, the researcher formulated the problem as "How is public value in IoT-based public security in Medan City?" In line with the research objectives and problem formulation, the researcher used the Public Value theory proposed by Moore (1997) as an analytical tool. Moore explains that there are four indicators to measure Public value, including a) effectiveness, efficiency, and service reach; b) programs that align with community needs; c) the ability of organizational leaders to interpret the organization's vision and mission into measurable goals and objectives; and d) reducing the burden on the community. These four indicators are used for analysis in this research.

Method

This research is a descriptive qualitative study conducted at Medan City, Indonesia. Descriptive qualitative research is used to describe how IoT-based public security can meet community needs by using public value metrics. This research focuses on the Public Value Framework developed by Moore, which includes three strategies for creating public value: support and legitimacy, operational capability, and substantive value. Thru this approach, the researcher aims to understand how support and legitimacy from institutions and society, as forms of social legitimacy, can contribute to a safe city. Additionally, operational capability is viewed as an essential organizational resource, including competent resources for executing technical and managerial tasks, clear and effective communication channels, and the application of good and innovative information technology. And lastly, the substantial value that is considered necessary to be created and deemed valuable for the beneficiaries.

The research subjects were determined using purposive sampling. There are a total of 13 informants, consisting of 8 informants from the police and 5 informants from the

community. From the police side, among them are the Head of the Metropolitan Resort Police Security Unit, the Head of the Sub Unit, and the Operational Officers. Informants from the community were selected from individuals who have previously received services from the police and participated in patrols utilizing IoT in collaboration with the police. The criteria for selecting informants were that each informant had a background and role related to public security in the city of Medan. Thus, the information obtained will be analyzed more deeply using Moore's public value indicators. Moore's framework allows for the identification of public values that need to be considered to achieve alignment with the community's needs.

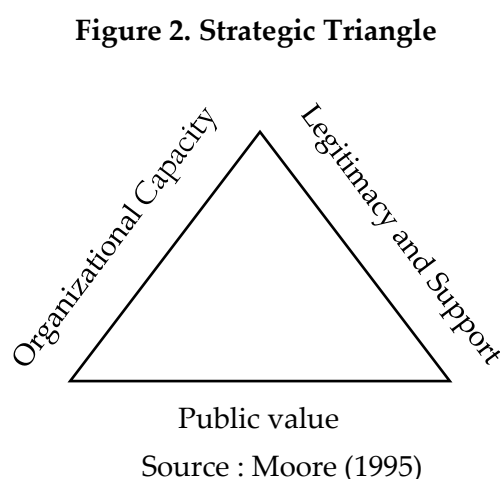
The researcher utilized observation, interviews, and documentation as data collection techniques. Before the data collection process, the researcher first prepares research guidelines to ensure the research is more directed. The creation of observation, interview, and documentation guidelines is based on research indicators, specifically Public Value according to Moore (1997) to address the research problem formulation. During the data collection, the researcher notes, records, and takes pictures or relevant data.

After conducting data collection, the researcher analyzes the data. The initial stage carried out by the researcher is creating transcripts from the data collection results to facilitate data analysis. Data analysis is a series of activities in organizing data, sorting data, synthesizing, searching, and finding patterns so that descriptive conclusions can be drawn. In summary, the stages of data analysis used by the researcher align with the stages of data analysis described by Miles and Huberman, namely data reduction, data presentation, and conclusion drawing (Mardawani, 2020).

To avoid bias in research data, it is necessary to test the validity of the data before drawing conclusions. This study uses source triangulation and technique triangulation. Triangulation is conducted by comparing several data sources, including secondary data based on police agency reports and interviews with informants, including the community and police officers performing their duties and functions, as well as observational results to strengthen the researcher's argument.

Results and Discussion

Public Value is the value generated from the achievement of public satisfaction toward public organizations Moore (1997). To create public value, a strategy known as the Strategic Triangle must first be implemented.



The strategic triangle is a framework that helps public organization leaders plan, manage, and evaluate a program to create public value. In short, this strategy serves as the foundation for creating public value. The components of the strategy are like a single building unit that are interconnected with each other. If one of the components is missing, then public value will not be achieved. Public value as the first component, this component explains that a program must truly align with the needs and expectations of the community. Legitimacy and support as the second component, this component explains that the program being implemented must be supported by stakeholders and have legal certainty. Organizational capacity as the third component, this component explains that the internal capabilities of the organization such as human resources, technology, supporting systems, and so on (Moore, 1995).

The police have been striving to create a strategic triangle. From the perspective of public value, the needs and expectations of the community for a sense of security have been pursued. In terms of legitimacy and support, efforts have been made thru the legal framework, namely Law No. 2 of 2002 concerning the Indonesian National Police and Police Chief Regulation (Perkap) No. 2 of 2025 concerning Talent Management of the Indonesian National Police. In terms of organizational capacity, efforts have also been made thru human resource management, the application of technology, and advanced systems. In short, society needs a sense of security, and then the government meets the needs of society to enhance that sense of security by issuing a series of policies and regulations, followed by strengthening the foundation thru increasing police capacity. In this way, public value can be created. The three components are interconnected and cannot be separated. Public value becomes the goal to be achieved, legitimacy and support become the foundation that provides authority and trust, while organizational capacity becomes the ability to realize it. This integration shows that the success of the police is not determined by just one component, but by the balance and dynamic interconnection between the three in addressing the needs of the community.

The creation of public value is carried out in a planned and systematic manner, which relates to how organizational leaders translate vision and mission into measurable programs for the creation of public value. Based on this, in this research, the police department clearly translates its vision into a security patrol program with vehicles supported by IoT, aimed at increasing the coverage of patrol areas. The creation of public value must certainly be strengthened thru regulations and also support from stakeholders and the community. In this case, the police apparatus needs community support to report criminal acts, but the reporting efforts must be based on clear and straightforward Standard Operating Procedures that can quickly respond to community needs. To support these efforts, good and competent organizational capacity and personnel capacity are needed.

Furthermore, to measure the success of public value in IoT-based public security in Medan City, it can be assessed based on the indicators proposed by Moore (1997) has follows:

Effectiveness, Efficiency, and Service Coverage

According to Moore (1997), effectiveness is a concept that assesses the extent to which a program successfully achieves its objectives and impacts the real world. Efficiency is the use of fewer inputs compared to outputs. Service coverage is the accessibility of services that can be accessed by all layers of society fairly and equitably, and is responsive to the needs of the community. From that definition, in summary, in this research, in terms of effectiveness, it means a decrease in crime rates; in terms of efficiency, it means low costs and a decrease in

crime; in terms of service reach, it means all layers of society can access services anywhere and anytime.

However, the problems occurring in the field are contrary to the theory that has been explained. The research found that the crime rate in Medan City tends to be stagnant and even increasing. There is a difference of opinion between the police officers in Medan City and the public. The police stated that the crime rate is decreasing, while the community claims that crime is still increasing with various offenses frequently found in public areas.

The Head of the Sub Unit of the Samapta Unit of Polrestabes Medan stated:

"IoT-based public security greatly influences crime rates because it makes it easier for our personnel; all information can be easily obtained with this technology."

One of the community members stated:

"At this moment, crime is still static and even increasing in our area."

To strengthen the research findings, the researchers correlated them with several reports on crime rates in Medan City. The Dashboard Polrestabes Medan (2025) published that there were 3,700 criminal cases in Medan City with a status of decline from the previous year. However, when correlated with other reports, there was an increase in criminality in Medan City. Jurnal Post (2025) published an increase in crime rates by 20% in the city of Medan. Pusiknas Bareskrim Polri (2025) published that Medan is the city with the highest crime rate, with 335 cases reported in a week.

The difference in perspective between the community and the police regarding the level of security is influenced by several factors beside the relatively low reporting rate, as the community tends to be reluctant to report due to the low responsiveness in case resolution from the Polrestabes. This is supported by interview results with informants who stated:

"The response wasn't quick because my child experienced it firsthand. The response was very, very slow." The incident was that the train was missing, and the response was slow, so it must have been taken somewhere else."

The level of public trust in the police is also relatively low, which is one of the reasons for the low reporting rates. This is supported by information from informants:

"The community no longer trusts the police."

In addition, the scope of patrol areas also receives special attention, especially in crime-prone areas. Currently, there are 19 crime hotspots on the main roads. Meanwhile, the buffer zones still require special attention, particularly for the types of crimes such as robbery and theft. This is supported by a statement from the Directorate of Samapta Polda North Sumatra.

"In North Sumatra, the city of Medan has the highest crime rate, with the most incidents of robbery and theft from the past until now."

The community also stated:

"Then, is this area wide, if possible, it should be increased and the police force should also be large. It's not just about the number, but they must also respond quickly."

In terms of efficiency, there is an issue where the costs incurred for the utilization of IoT are quite significant. GPS is installed in patrol cars, but if the car is not operational, the GPS cannot provide real-time information and optimize assignments. GPS and the daily operation of the vehicle require costs such as maintenance and operational expenses. Every day, it consumes 8 liters of fuel. HT does not require a large amount of funding because the significant expenses occur only at the beginning during procurement. The input does not match the output, where the input is larger but the crime rate continues to rise.

In terms of service coverage, there are also issues due to the lack of service distribution. Based on the researchers' findings in the field, the application of IoT in public security does not cover all areas in the city of Medan, where GPS patrols are usually only in urban centers, not in smaller areas. This is supported by the views of the community, which state:

"Maybe in urban areas, yes, but in the area around my residence, I haven't seen them patrolling yet."

HT serves as a communication support tool; if a crime report occurs in a small area, the police officers will coordinate with the operator who monitors patrol locations via GPS and then direct the nearest vehicle to the crime scene (TKP). However, at this point, the problem becomes more complex because many people still do not know how to report without having to go directly to the local police station. More precisely, there has been no effort to socialize and increase public participation. The community stated:

"As for socialization, there has been no information about its benefits and functions so far, and the bhabinkantibmas has not provided any either. Until now, to get connected, we still communicate with the officers at the village level (bhabinkantibmas) or use other methods like directly visiting the police station or polrestabes."

The lack of socialization leads to a lack of public understanding in supporting the sustainability of the IoT utilization created by the police. Furthermore, the public does not know exactly how to connect with the technology provided by the police. Thus, the public's participation is also low. This indicates a low service reach, which does not benefit the community and tends to decrease the perceived value of the police's role in maintaining security.

Based on the results of interviews, observations, and documentation conducted by the researcher, the researcher concludes that the effectiveness, efficiency, and reach of the services have not yet succeeded in creating public value for IoT-based public security in the city of Medan. This is because there are still unresolved issues such as increasing crime rates, inefficiency, and uneven access to services, as well as a lack of socialization to the public regarding IoT-based public services in the field of security. The concept offered by Moore (1997) serves as a benchmark in assessing the success of public value, where effectiveness means achieving goals, efficiency means resource savings, and service reach means equitable and fair access.

As a suggestion, the police can improve effectiveness by conducting evaluations to ensure that the implementation of IoT is truly running optimally to enhance security. Efficiency can be achieved by re-evaluating strategies and ensuring that, despite incurring costs, effectiveness must be attained. The reach of services can also be improved by equalizing security patrols, increasing community participation, and conducting outreach to the community.

Program Adjusting to Community Needs

Moore (1997) explains that the value of a program is not only determined by the leaders of public organizations but also emerges from the community that receives the program, so in determining the program, it must align with the needs of the community.

Based on the results of interviews, observations, and documentation conducted by the researcher, the program implemented by the Medan City Police is in line with the needs of the community. The police initiated an IoT-based public security program to address the needs of the community. The community has a need to live safely and free from threats. The community

also supports it if IoT-based security can help improve safety, then they will support it. As stated:

"This crime is now continuously increasing, but the presence of technology and well-performing police officers is necessary. The hope is that security and comfort continue to improve because the needs of the community can be considered fundamental, especially with the increasing crime rate. So if this program is indeed important to implement, we as a society fully support it."

If linked to the strategic triangle to support the creation of public value, the police have designed this IoT-based security to meet the community's need for a safe and threat-free life. Then there is a legal basis that supports the success of IoT-based public security and the utilization of organizational capacities such as human resources and technology in carrying out tasks to maintain public safety.

The need for a sense of security is a fundamental aspect that should be obtained by every citizen. The socialization of the rapid reporting SOP in responding to complaints should be designed to meet the needs of the service-using community. Based on the information gathered in the field, the public does not receive sufficient information about the reporting process thru the latest technology, and reports are not responded to quickly. This actually lowers the level of public trust and ultimately will decrease the value of the police institution.

"I don't really know if they have maximized their AI or not." "But what we see is that if there are results, it would be better, but as we can see now, it's not getting better (in terms of security)."

"I see it as less helpful because, in the end, there needs to be reports from the community, being more sensitive to security like building neighborhood watch posts, so resources also need to be emphasized."

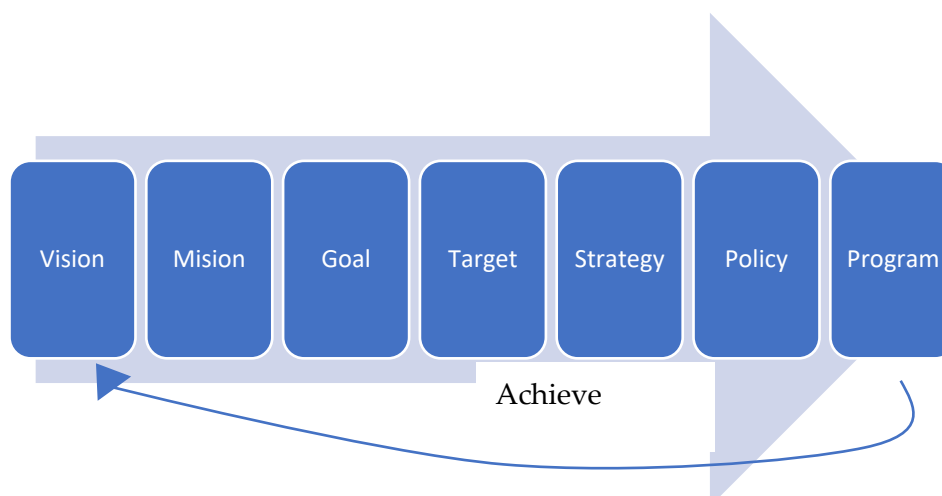
The concept offered by Moore (1997) serves as a benchmark in assessing public value success, where the program must align with community needs, meaning the application of IoT to help enhance the sense of safety and freedom from threats.

As a suggestion, the Medan City Police can optimize IoT-based public security by maximizing the use of IoT to enhance public safety and conducting public dialogs to align with the ongoing needs of the community.

The Ability of Organizational Leaders to Interpret the Vision and Mission of the Organization into Measurable Goals and Objectives

Moore (1997) explains that organizational leaders must ensure that the organization truly creates value for society. The vision and mission of the organization are translated into goals and objectives, then developed into strategies, organized into policies, and implemented into programs, which are then measured to determine whether the programs are successful and help achieve the organization's vision and mission (Amnillah et al., 2023).

Figure 3. Roadmap of Achievement



Source : Processed by the Researcher (2026)

Based on the researchers' findings in line with the above roadmap, the vision of the police is to realize a safe and orderly Indonesia. To achieve this vision, one of the police's missions is to serve the community by providing protection and a sense of security to the public, thereby achieving the goal of maintaining public safety and order. Following up, from the vision, police leaders create security policies such as Law No. 2 of 2002 concerning the Indonesian National Police. Thru these regulations, the duties of the police are clearly outlined. In further response, there is a commitment from the police leadership with several programs to enhance security. One of them is the utilization of technology in the form of enhancing public security based on IoT in the city of Medan. This program serves as a strategic step by the police leadership in improving public security, with the hope of achieving the police vision of realizing a safe and orderly Indonesia. This is a demonstration of the police leadership's ability to interpret the vision and mission.

In order to support the program running optimally, there is a need for an increase in human resources. The improvement of human resources can be achieved thru training and talent developmen (El-Ouali & Jellouli, 2024). The researchers found that there are regulations governing the training and development of police officers. The Chief of Police Regulation (Perkap) No. 2 of 2025 regulates the Talent Management of the Indonesian National Police. However, based on the researchers' observations and interviews in the field, there is no specific training for police officers regarding the use of technology or IoT in carrying out their duties. The Head of the Turjawali Sub Unit of the Samapta Unit at Polrestabes Medan stated:

"If there is no regular training related to the use of technology, physical training is conducted regularly." Except for us in the public relations department, we need to know about those technologies. Whereas we don't need to, just patrol and receive reports, follow up."

Furthermore, other police officers also stated:

"There is no training, and even if there is job-related information, you get it from seniors. So, there is no special training related to technology."

The lack of specialized training on the use of IoT for police officers has become an issue. Especially from the perspective of the Head of the Sub Unit as the leader of the police unit carrying out the duties, it is clear that there is still no full commitment from the leadership of

the Medan City police to provide training. The capacity of police officers working in the field and alongside IoT should be prioritized as they are the frontline of the program's success in enhancing public safety.

Therefore, the researchers concluded that IoT-based public security in Medan City is a form of interpreting the vision and mission of police leaders. The concept offered by Moore (1997) serves as a benchmark in assessing the success of public value, where the ability of organizational leaders to interpret the organization's vision and mission into measurable goals and objectives means the implementation of IoT as a program to achieve the vision of realizing security. Although the leaders have been able to interpret their vision and mission into a program, in the Medan City Police, there is still no full commitment from the leaders to ensure the program runs optimally due to the lack of training for police officers regarding the use of IoT.

As suggestion, police leaders should not only create policies and programs but also pay attention to them in detail to ensure they run optimally. One way to achieve this is thru the development of police officers' capacity to use IoT.

Reducing the Burden in Society

Moore (1997) explains that reducing the burden on society is the same as striving to create welfare for the community. Reducing the burden on society is also defined as alleviating the pressure or difficulties faced by the community. Based on the research findings, the pressure felt by the people of Medan City is the very low level of security. The community feels unsafe when engaging in activities in public spaces. Quoted from the Jurnal Post (2025) website, the news explains that many people are worried, especially when engaging in activities at nite. The Dashboard Polrestabes Medan (2025) also states that 68% of the people in Medan City feel unsafe.

The Medan City Police have made efforts to reduce the burden on the community in terms of security by enhancing public safety thru IoT-based systems. However, the fact is that the community still feels unsafe. In addition, the public is also not yet satisfied with the efforts made by the Medan City Police. One of the community members stated:

"If you ask me if I'm satisfied, not yet. But if it is truly implemented in the future, I will be satisfied. The integration of technology and police officers. So for now, we are not satisfied because we haven't felt the impact yet, and it hasn't been socialized either.."

Other communities also state:

"Not satisfied because if I were satisfied, it would definitely be perfect. Crime rates haven't increased. If we rate the level of satisfaction between 1-10, I would give it a 7.."

The concept offered by Moore (1997) serves as a benchmark in assessing the success of public value, where reducing the burden on the community means a decrease in societal pressure in the form of a sense of safety and freedom from threats.

As a suggestion, the police can optimize IoT-based public security to reduce the burden on the community. Evaluation needs to be conducted so that the use of IoT in public security has a positive impact on the community, thereby achieving public value as well.

Public Value IoT-based Public Security Medan City

Based on the researchers' analysis of the four public value indicators from Moore (1997), it can be concluded that the public value of IoT-based public security in Medan City has not been fully successful and still faces several unresolved issues.

The first problem is the still high crime rate. The second problem is that the output produced is not proportional to the input. The third problem is that the service has not reached people evenly and fairly. The fourth problem is the lack of training for police officers. Lastly, the issue related to the first problem is that the community does not yet feel safe due to the still high crime rate and feels unsatisfied with the IoT-based services.

Tabel 1. Comparison of Theory with Discovery

Indicator	Theory	Discovery
Effectiveness, Efficiency, and Service Coverage	Goals achieved, resource savings and greater output, equal and fair access	Crime is increasing, funding is growing, and crime is rising, access is not yet equitable and fair
Program Adjusting to Community Needs	According to the needs of the community	In accordance with the needs of the community, which are a sense of security and freedom from threats
The ability of a leader to interpret the vision and mission	The vision and mission are translated into policies and programs, which then impact the achievement of the vision	Policies and programs are in line with the vision and mission. However, there is still no full commitment from the leaders in implementing IoT-based training for the officers carrying out tasks in the field
Reducing the Burden in Society	Social pressure is decreasing	The pressure from society has not decreased because people still feel unsafe engaging in activities in public spaces due to high levels of crime.

Source: Data Processed by Researchers (2026)

In short, IoT-based Public Security is a good initiative by the Medan City Police to create public safety and enhance public value. However, its implementation still faces challenges, so the public value of the service has not been fully realized. To increase public value, the police can conduct periodic evaluations and pay attention to the re-management of the IoT-based public security service.

Conclusion

Based on the discussion above, this research concludes that public value in IoT-based public security services in Medan City has not been fully achieved. First, the effectiveness, efficiency, and reach of the services have not yet succeeded in creating public value for IoT-based public security in Medan City due to the rising crime rate, lack of efficiency, uneven

access to services, and the absence of socialization to the community regarding IoT-based public services in the field of security. Second, the program in the form of IoT-based public security in Medan City has successfully created public value because it meets the needs of the community. Third, IoT-based public security in Medan City is an interpretation of the police leadership's vision and mission into a program, thereby having the potential to successfully create public value. However, there is a problem, namely the lack of full commitment from the leaders to ensure the program runs optimally due to the absence of training for police officers regarding the use of IoT. Fourth, the IoT-based public security in Medan City has not reduced the burden on the people of Medan City regarding public security because the community still feels worried when engaging in activities in public spaces and is not yet satisfied with the IoT-based public services.

Acknowledgement

The author expresses gratitude to the Universitas Sumatera Utara for supporting this research by providing funding for the Universitas Sumatera Utara Talent Research Grant Program in 2023.

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