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SUPERVISION OF FIBER OPTIC NETWORK INFRASTRUCTURE MANAGEMENT BY THE DEPARTMENT OF PUBLIC WORKS IN THE CITY OF MEDAN

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ABSTRACT

The increasing number of internet users in Indonesia has resulted in an increased need for internet infrastructure. The city of Medan is one of those affected, where there are many chaotic internet infrastructures. The Medan City Public Works Service has overcome this phenomenon, but many violations are still found in the field. The purpose of this study was to determine the supervision of licensing management for fiber optic network infrastructure by the Public Works Department of Medan City. The research method used is a qualitative research method with an approach. The results of research in the field show that the supervision of licensing management carried out by the Medan City Public Works Service has not gone well. This can be observed from the many installations of internet network infrastructure in Medan City that are not in accordance with Medan Mayor Regulation Number 17 of 2020 concerning Guidelines for Structuring and Controlling Telecommunication Towers and Fiber Optic Networks. Among them are installations that do not get permission from the local community, disruption of access to and out of 4-wheeled vehicles, and construction toe points that are too close to the side of the sidewalk.

1. INTRODUCTION

In the current era of globalization, various aspects of human life are influenced by the existence of the internet. It is known that the number of internet consumers in the world in 2021 has reached 4.66 billion people, where this number exceeds half of the world's human population, which is 7.85 billion people, this is also not spared by the co-19 pandemic. The same thing happened in Indonesia, where during the Covid-19 pandemic in 2021, it was found that there were 202.6 million (73.7%) people who were declared internet consumers.

The rapid growth in the number of internet consumers in Indonesia has had a positive impact, especially for internet service providers. Internet service providers, such as IndiHome, have recorded a spike in data traffic and new users since the implementation of work from home (WFH) due to Covid-19. In addition, competition in the domestic broadband internet business is also getting tougher with the presence of various new internet service providers.

The large number of service providers in Indonesia has contributed to disruption of spatial planning in several regions in Indonesia. The city of Medan is one of them, as reported by the website "waspada.id", it is stated that the city of Medan is nicknamed the "City of a Thousand Poles and Cables" due to the presence of chaotic internet poles and cables. Various fiber optic infrastructure violations were found in Medan City. This includes installing fiber optic infrastructure that does not ask for permission from the public, especially homeowners, then internet service providers who do not have installation permits, to installing infrastructure that does not comply with regulations.

In Medan City, this has been regulated through Medan Mayor Regulation Number 17 of 2020 concerning Amendments to Medan Mayor Regulation Number 8 of 2019 concerning Guidelines for Structuring and Controlling Telecommunication Towers and Fiber Optic Networks. Through this Regional Regulation, the procedure for obtaining an installation permit has been explained, the conditions that must be met before installation, up to sanctions in the event of a violation including supervision or control.

The supervision and control itself is carried out by the so-called Regional Work Unit (SKPD) technical team controlling telecommunications towers and fiber optic network facilities for the City Government of Medan. One of the departments that has a vital role is the Medan City Public Works Office. The Medan City Public Works Office has the right to regulate the existence of fiber optic infrastructure, especially those that have the potential to disrupt spatial planning in a certain area.

For describing the supervision of fiber optic infrastructure in Medan City more deeply, researchers use the theory from Robbins and Coulter (2010: 182), which consists of three indicators. In the first indicator, the measurement is carried out with the aim of knowing whether the actual performance in the field has been carried out properly or not. There are four approaches used in measuring and reporting actual performance including personal observation, statistical reports, oral reports and written reports.

The second indicator according to Robbins and Coulter (2010: 186), namely comparison (compare) is a step that determines the level of variation between standards and actual performance. With the comparison allows supervisors to measure deviations between standards and actual performance. In this case, it is quite clear that there is a gap between Medan Mayor Regulation Number 17 of 2020 concerning Amendments to Medan Mayor Regulation Number 8 of 2019 concerning Guidelines for Structuring and Controlling Telecommunication Towers and Fiber Optic Networks (standard) and the reality on the ground. The rampant cases of violations found in the field of fiber optic network facilities indicate that standards have not been properly realized in the field.

The third indicator is remedial action (Action), according to Robbins and Coulter (2010: 187), namely corrective action (action) is a corrective step that is produced (output) rather than the implementation of an oversight. These corrective actions can be in the form of corrections to actual performance which consist of immediate corrective actions as well as basic corrective actions as well as corrections or revisions to existing standards.

This research aims to describe the efforts of the Medan City Public Works Service in supervising inappropriate fiber optic infrastructure in Medan City. Based on the description and presentation above, the researcher is interested in conducting research on the supervision of fiber optic

infrastructure management carried out by the Medan City Public Works Service.

2. METHODS

The method used in this research is descriptive method with a qualitative approach. As according to Pasolong (2016: 32) qualitative research is a humanistic research model that places humans as the main subject in social/cultural events. While the descriptive research method according to Arikunto (2013: 3) is research that is intended to investigate the circumstances, conditions or other matters that have been mentioned, the results of which are presented in the form of a research report.

The data collection techniques of this research consisted of primary data collection techniques such as interviews, observation and secondary data collection techniques such as documentation and literature studies. The data analysis technique in this study according to Miles and Huberman (in Ghony, et al. 2020: 186), consists of data reduction, data presentation, and drawing conclusions. The research instrument in this study is the researcher himself, as according to Sugiyono (2016: 305) qualitative research instrument is the researcher himself. This means that a researcher acts as a tool in recording information during research activities and researchers also go into the field to find and collect data needed for research.

In this research, researchers used purposive sampling and snowball sampling methods in determining informants. The reason the researcher chose the purposive sampling technique was to determine and identify certain informants who were difficult to reach by informants in providing important information through in-depth interviews (in Ibrahim, 2018: 74). The snowball sampling technique is a method for identifying, selecting and taking samples in a continuous network or chain of relationships (in Fitrah & Luthfiah, 2017: 162)

The researchers determined as many as twelve informants in this research. The twelve informants consisted of two informants in the Construction Services Sector of the Medan City Public Works Service, an informant in the Road Maintenance Sector of the Medan City Public Works Service, four Internet Service Provider Officers (ISP), including PT. MNC, PT. Indosat, PT. LinkNet Tbk, PT. Biznet, as well as five Communities around Tegal Sari Mandala-I Village, Medan Denai District, Medan City.

3. RESULTS AND DISCUSSION

The results of this study use indicators of the control process theory (supervision) as proposed by Robbins and Coulter (2010: 184), which consists of measuring actual performance, comparison of actual performance with standards, and taking corrective (managerial) actions related to management oversight. fiber optic network infrastructure by the Medan City Public Works Service which is expected to answer research problems in the field.

3.1. Measurement

The measurement indicator for the supervision of fiber optic network infrastructure carried out by the Medan City Public Works Service consists of four sub-indicators, namely personal observations, statistical reports, oral reports and written reports.

Through the results of personal observations, the researcher took measurements to prove whether Medan Mayor Regulation Number 17 of 2020 concerning Guidelines for Structuring and Controlling Telecommunication Towers and Fiber Optic Networks has been fulfilled in the field. This observation was carried out at several road points, including Jalan Selam V, Selam VI, and Selam VII, Tegal Mandala-I Village, Medan Denai District, Medan City. Some of the violations that researchers found included the installation of infrastructure without the homeowner's permission, construction toe shoes that protruded too much into the side of the sidewalk, fiber optic poles that were installed to block access to homeowners' vehicles, damaged cables that were left hanging, and distances between tower points that were it is not in accordance with. This of course also harms the local community.

Next is the statistical report sub-indicator. Through a statistical report on the supervision of Fiber Optic network infrastructure carried out by the Medan City Public Works Service in the January-February 2022 period, nine fiber optic infrastructures were found to have problems out of a total of thirteen fiber optic infrastructures.

The description of the violations included the discovery of five unlicensed fiber optic infrastructure, two infrastructures that endangered road users, one infrastructure installation activity

that had no worker's K3 ownership, and one without explanation. As for the four fiber optic infrastructures, it is known that they already have permits and are not having problems. Based on the presentation of the statistical report from the Medan City Public Works Service above, it can be seen that the number of problem infrastructure was clearly recorded at a certain time.

The next sub-indicator is an oral report. In oral reports, the Medan City Public Works Office receives reports directly from the community or through the agencies closest to the community such as sub-districts and sub-districts. Apart from that, several fiber optic case reports have also been received by the Medan City Public Works Office via the WhatsApp platform. However, it is very unfortunate based on the information from the Medan City Public Works Office informant, explaining that this complaint via WhatsApp is not an official complaint provided by the Medan City Public Works Office. For now, complaints are only available among people who have close relationships (relatives) with the Medan City Public Works Office, such as neighbors and family. If this method is developed, it is possible that fiber optic infrastructure violations will be smaller in the future.

As for the sub-indicator of the written report from the supervision carried out by the Medan City Public Works Service, it is the receipt of a written report (document) by the public addressed to the Medan City Public Works Service or the nearest government agency related to fiber optic infrastructure problems. These written reports are usually often made by a group of people who live in adjacent areas and both reject the existence of fiber optic infrastructure which is considered to be quite disturbing to them. However, there are still people who make this letter individually.

The Medan City Public Works Office receives these written reports quite often, but not as many as verbal reports. According to the researcher's interviews with several Medan City residents, this was due to the community not wanting to be bothered to make a written (official) report. They more often come to the government institutions closest to them such as the RT/RW, Lurah, and Camat and report this problem directly.

3.2. Compare

In the following indicators, the comparison aims to find gaps between the standards set and actual performance or real conditions in the field. The reference standard in this matter is Medan Mayor Regulation Number 17 of 2020 concerning Amendments to Medan Mayor Regulation Number 8 of 2019 concerning Guidelines for Structuring and Controlling Telecommunication Towers and Fiber Optic Networks. As for the conditions in the field related to fiber optic infrastructure in Medan City, in accordance with the findings of researchers on previous measurement indicators, several problems were found including the installation of infrastructure without the home owner's permission, construction shoes that were too close to the sidewalk, poles that prevented access to the home owner's vehicle and infrastructure that endanger society.

Based on Medan Mayor Regulation Number 17 of 2020 concerning Amendments to Medan Mayor Regulation Number 8 of 2019 concerning Guidelines for the Arrangement and Control of Telecommunication Towers and Fiber Optic Networks, all of the above violations can be subject to sanctions according to the article. Installation of infrastructure without a house owner's permission can be subject to Article 8 paragraph (2) point a: approval of local residents within a radius according to the height of the tower known to the local Lurah and Camat. Whereas construction toe shoes that are too close to the sidewalk may be subject to Article 6A paragraph h as point/base axis/construction toe cap (pile cap) must be located at a distance of 0.5 meters from the side of the outer sidewalk that borders/adjacent to the canal/ditch edge or parcels.

As for other problems, such as poles that are installed to interfere with access to the home owner's vehicle, Medan Mayor Regulation Number 17 of 2020 article 6A paragraph e can be imposed: not interfering with access to and from entering and leaving 4 (four) wheeled vehicles to the plot of land. Meanwhile, for fiber optic infrastructure that endangers the public, it can be subject to article 7 paragraph a: telecommunication towers to be built must comply with the Indonesian National Standard (SNI) and standard standards especially to ensure building and environmental safety by taking into account the factors that determine the strength and stability of construction tower.

Based on a comparison between Medan Mayor Regulation Number 17 of 2020 concerning Amendments to Medan Mayor Regulation Number 8 of 2019 concerning Guidelines for the

Arrangement and Control of Telecommunication Towers and Fiber Optic Networks (standards) and the conditions that occur in the field, it can be concluded that although supervision (controlling) has been carried out by the Medan City Public Works Service, there are still many fiber optic infrastructure found that violate the provisions. In this case the comparative indicators can be observed that the condition of the fiber optic infrastructure in Medan City has not been able to comply with the existing provisions in the existing standards (regulations), where quite a number of violations still occur in a relatively short period of time.

3.3. Corrective action

This indicator is an action that will be taken by the manager (leader) after obtaining information from the previous indicators. The corrective action taken by the Medan City Public Works Service for internet service providers who violated the provisions was in the form of giving written warning letters and dismantling fiber optic infrastructure.

As for the purpose of giving this warning letter, it was issued by the Medan City Public Works Service to internet service providers as a form of reprimand because their fiber optic infrastructure had violated regulations. This warning letter was once given to PT. Link Net, Tbk on January 27, 2022 due to ownership of ten fiber optic poles on Jalan Gaperta, Tanjung Gusta Village, Medan Helvetia District, which do not have technical recommendation permits. The issuance of the warning letter obliges PT. Link Net, Tbk to immediately take care of its technical recommendation permit.

Another form of improvement is the dismantling of the problematic fiber optic infrastructure. This demolition is a continuation of the issuance of a warning letter, if. Demolition is carried out if the fiber optic infrastructure has been proven to violate existing regulations. Demolition can be carried out directly or indirectly. The demolition is done immediately if the internet service provider is not willing to take responsibility, so that the Medan City Public Works Office which is carrying out the demolition of the infrastructure and the internet service provider company will be subject to sanctions and fines, even having the company's license revoked. As for what is meant by indirect demolition, namely demolition carried out by the internet service provider as the defendant (willing to take responsibility) and the Medan City Public Works Service oversees the demolition activities.

4. CONCLUSION

The conclusion of this study is that the Supervision of Licensing Management of Fiber Optic Network Infrastructure carried out by the Medan City Public Works Service has not run optimally. This can be observed as in the measurement indicators to be precise in personal observations that researchers have conducted where there are still many violations of fiber optic infrastructure such as infrastructure without permits, endangering road users, and complaints from the public. This proves that the results of supervision of the management of fiber optic infrastructure licensing by the Medan City Public Works Office have not achieved maximum results. In terms of reporting, the Medan City Public Works Office also has not yet provided an efficient reporting method for the community.

As for the comparative indicators, it can be concluded that supervision of licensing management by the Medan City Public Works Service is still proven to violate many existing regulations (standards). The standard in this case is Medan Mayor Regulation Number 17 of 2020 concerning Amendments to Medan Mayor Regulation Number 8 of 2019 concerning Guidelines for Structuring and Controlling Telecommunication Towers and Fiber Optic Networks. Some of the violations that occurred as above were proven to have violated several existing articles. For example, the installation of infrastructure without community permission can be subject to Article 8 paragraph (2) point a, while construction shoes that are too close to the sidewalk can be subject to Article 6A paragraph h, and the problem of poles being installed interferes with access to the home owner's vehicle, can be subject to Article 6A paragraph e in accordance with the regulations referred to above.

From the indicators of corrective action taken by the Medan City Public Works Service for violations of fiber optic infrastructure in the field, it can be said that it is quite good. This can be proven through corrective actions in the form of issuing warning letters and dismantling activities for fiber optic infrastructure that are known to be problematic or violate the provisions in the regulations (standards) of the Medan City Public

Works Service. Where the warning letter functions as a written warning to internet service providers and demolition activities are carried out by the Medan City Public Works Service if the warning letter given is not responded to properly or if the existence of fiber optic infrastructure cannot be tolerated in accordance with applicable regulations (standards).

As for the advice that can be given by the author regarding the Supervision of Licensing Management of Fiber Optic Network Infrastructure by the Medan City Public Works Service, it is better for the Medan City Public Works Service to take advantage of the existence of social media platforms such as "facebook", "instagram", "hotline" (call- center) so that people can report violations quickly and easily. In addition, the Medan City Public Works Service should tighten the procedures for obtaining recommendation permits for the installation of fiber optic infrastructure, especially those related to the completeness of official internet service provider documents, such as K3 installation permits, permits obtained from the local community, especially homeowners, permits from RT/ RW, and permits obtained from Lurah, Camat. This is really needed so that the rights of the local community are not disturbed through the existence of this fiber optic infrastructure.

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