Protection of public interests in the administration of legal metrology in Medan

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Abstract. As a metropolitan city, Medan has several advantages that support the trading activities. However, these advantages must be underpinned by legal certainty in conducting trade transactions. Measuring instruments serves as the prominent equipment in building mutual trust in business relationships. The instruments are regulated in Law Number 2 of 1981 concerning Legal Metrology (LLM). This study is legal research using a normative legal method. The data were collected from literature and were analyzed qualitatively. The results reveal several problems in the administration of legal metrology. Limited budget, lack of calibration officers, lack of support from local policies in the implementation of services, and insufficient facilities and infrastructure are the current circumstances in almost all regions including Medan. Such condition occurs because of the incomplete issues of competency in the field of legal metrology between the central and local governments after regional autonomy implementation. In conclusion, the overlapping authority between the central and local government resulted in a non-optimal administration of legal metrology in the regions. A synergy between the centralized LLM and decentralized Law Number 32 of 2014 concerning Local Government is needed. Thus protection will be achieved in the application of legal metrology services.

1. Introduction
Medan is the capital of North Sumatra Province and is the largest city on the island of Sumatra. With the population of 2,247,425 people (data for 2017), Medan is categorized as a metropolitan city. The area of Medan is 265.10 km² with the population density of 8,478 people/ km² and the population growth rate of 0.89% per year. Referring to Law Number 56 of 1960 concerning Determination of Agricultural Land Use, the population density of more than 400 people per square kilometer makes Medan categorized as a very densely populated city with a high growth rate. However, such population growth counterbalances the increasing economic growth. Based on data from the Municipal Statistics Agency of Medan in 2018, the economic growth in Medan in 2017 was 7.26%, which is higher than the economic growth of 6.26% in 2016.

Strategic geographical conditions, airport, seaport, and road infrastructures are factors supporting the trade activities in Medan. One of the main elements in trade transaction is trust. Traders and buyers will close a dealings based on their agreement on the quality and quantity of products or services. In this case, traders and consumers must get equal protection. Traders are protected from losses due to providing goods that exceed the agreed volume, while consumers are protected from losses due to receiving products that are less than they requested/paid [1]. Consequently the equipment capable of
providing correct measurement results is needed [2]. Such equipment must be precise and can be used to achieve a high level of accuracy. Accuracy and reliability of the Measuring, Dosing, Weighing devices, and their Outfits (MDWO) are required to balance the position of the parties involved in a trade transaction.

Every MDWO instrument that will be used for the first time in business activities must be calibrated to ensure its feasibility. Calibration is the activity of giving a valid or invalid mark (invalid mark means canceled) after testing the MDWO instruments before their application. Furthermore, the MDWO instruments which are continuously used in commercial transactions with a relatively high frequency possibly experience changes in some of their parts [3]. If such changes are ignored, they will potentially cause measurement errors that may harm consumers and traders [4]. Re-calibration, as a periodical control needs to be done to ensure that the instruments are still feasible.

The accuracy and consistency of the measurement are guaranteed by the state or government through Law Number 2 of 1981 concerning Legal Metrology (LLM). Metrology, in its broad sense, is the science of measurement covering all aspects of practical and theoretical. The branch of metrology concerning with the accuracy that affect the transparency of economic transactions, health and safety, public interest and consumer protection, and law enforcement is called legal metrology[5]. By with the provisions of Article 12 of LLM, MDWO instruments must be calibrated and recalibrated. This obligation aims at creating a protection to the public interests through the guarantee of measurement correctness and legal certainty [6]. The implementation of calibration and re-calibration must be carried out regularly to ensure an orderly measure in society.

The government has established a metrological authority as the only recognized body to determine the validity of measuring instruments used. Legal metrology, in terms of measurements related to regulation, is the responsibility of the Directorate of Metrology, Ministry of Trade. To facilitate legal metrological services in the regions, a Regional Technical Implementation Unit (RTIU) of Legal Metrology is established to perform the technical duties of legal metrology in the regions. Also, the Ministry of Trade also supervises the MDWO instruments to improve protection to consumers and maintain the quality of distributed goods and services [7]. Such standardization is intended to create a healthy and fair market, especially for consumers [8].

However, the implementation of calibration and re-calibration of MDWO instruments has not run optimally. From the institutional aspect, there is still overlapping authority, both in the perspective of institutions at the national level and about decentralization or regional autonomy. This condition affects the administration of legal metrology in the regions. A large number of districts that do not have legal metrology service units indicates a lack of commitment by the Government to protect the interests of users of legal metrology services. Another obstacle is the limited number of calibration officers and equipment, failing to achieve public interest protection.

2. Formulation of problems
How is the protection to public interests through the implementation of legal metrology in Medan?

3. Method
This type of research is an analytical descriptive legal research. The data sources were secondary data comprising primary, secondary and tertiary legal materials [9]. The data were obtained by conducting several laws, regulations, and related literature [10]. The data were then analyzed qualitatively. The explanation was then systematically presented in the form of a discussion to answer the statement of the problem.

4. Results and discussions
After implementing authority delegation from the Provincial Government, the District/Municipal Government has the right to compile and stipulate Local Regulation concerning the administration of legal metrology in the field of calibration or recalibration. However, up until recently, only 5 out of 33 districts/cities in North Sumatra Province already have Local Regulations and Regional Technical
Implementation Units (RTIU); they are Deli Serdang District, Serdang Bedagai District, Dairi District, Padangsidempuan City, and Tebing Tinggi City. Other districts/cities currently still work with repairman at the old Technical Implementation Unit (TIU) under the provincial government. Medan as the capital of the province has not had a Local Regulation on legal metrology; even the RTIU in Medan has not provided maximum calibration and re-calibration services because it continues using the facilities owned by the provincial government. This condition affects the potential income of billions of rupiah per year, which can be generated from the retribution of calibration, and re-calibration. The Provincial Government of North Sumatra has submitted measuring instruments to standardize the capacity of tanks, scales, and other measuring instruments used for trading to be recalibrated. However, the submitted instruments are the products made in 1972, which are no longer feasible [11].

The absence of local regulation on the administration of legal metrology in Medan has created a legal vacuum and legal uncertainty in society. There is a dilemma for the officers because levy is carried out without a legal basis. However, if such retribution is not generated, the society will not get their rights for protection in a fair transaction.

Outdated and insufficient instruments to serve all existing MDWO clearly describe the condition of the RTIU facilities nationally, including buildings, equipment, operational vehicles, and size standards. Each provincial TIU requires at least three sets of size standards for minimum calibration services that are well tracked. In addition, limited human resources also become obstacles to the administration of legal metrology. Nationally, 3,444 calibration officers are needed; meanwhile, currently, the number of calibration officers is only 787 people (22.9% of the ideal amount of calibration officers). The obstacle in increasing the number of calibration officers is due to the difficulty of obtaining qualified human resources who hold legal metrology qualifications (Bachelor of Engineering) [12].

Within a year, the Provincial TIU can only provide services between 32-48 days for all districts/cities. The range of calibration/recalibration services is only 46.28% of the estimated population of MDWO instruments. With the service range of only around 46.28%, a market can only be served once every three years [13]. This condition occurs due to a lack of budget and planning for service procedures, especially in traditional markets.

Legal metrology plays a very important role in the national economy. Rocio M. Marban and Julio A. Pellecer state that legal metrology is one of the basic services carried out by the government of a country to its people, regardless of whether they are consumers or business owners [14]. The issue of the current administration of legal metrology, as elaborated above, is inseparable from the existence of the prevailing regulations. There is a discrepancy between centralized LLM and decentralized Law of Local Government. LLM, which was born in the era of centralization, stresses that the Minister is responsible for the tasks of metrology. In the Elucidation, the Minister of Trade is defined as the Minister responsible for implementing the Laws.

On the other hand, according to Law Number 32 of 2014 (as amended by Law Number 9 of 2015 concerning Local Government/Law of Local Government), legal metrology together with its various MDWO instruments is the concurrent government’s affairs. Based on the provisions of Article 9 paragraph (3) of Law of Local Government, the concurrent government’s affairs are government’s affairs that are shared between the Central Government and the provincial government and the district/municipal government. Furthermore, based on the provisions of paragraph (4), concurrent government affairs submitted to local government become the basis for the implementation of regional autonomy. The concurrent government regulations are then divided into mandatory and optional affairs. Referring to Article 12 paragraph (3)(f), the administration of legal metrology is included in the optional affairs. Based on Government Regulation Number 38 of 2007 concerning Division of Government Affairs between the Central Government and Provincial Government and District/Municipal Government (Regulation of Local Government number 38/2007), local governments should carry out calibration/ re-calibration services. This can be illustrated in the following table:
Table 1. Division of Legal Metrology Affairs.

| No. | Legal Metrology Affairs               | District/Municipal | Provincial | Central |
|-----|---------------------------------------|--------------------|------------|---------|
| 1   | Counseling and Observation            | √                  | √          | √       |
| 2   | Supervision and Investigation         | √                  | √          | √       |
| 3   | Administration of Calibration and Recalibration | √                  | √          | √       |
| 4   | Management of Size Standards and Laboratory |                   | √          |         |
| 5   | Examination of MDWO for Licensing     |                    |            | √       |

Source: Bill on Legal Metrology, BPHN, 2013

The Law of Local Government submits part of the legal metrology affairs to the provincial and district/municipal governments even though they belong to optional affairs, while the LLM continues to treat such affairs as the central government’s affairs. This will certainly affect the implementation in the regions, particularly to the institutional aspects which include Personnel, Funding, Facilities and infrastructure, and Documents (PFFD). Such optional affairs result in differences in the policies of each region in administering legal metrology affairs. Especially when the metrological tasks do not provide economic benefits to the regions, they tend to ignore such tasks.

Another factor is the strong role of the provincial government in administering legal metrology, even though it should be submitted to the districts/cities. This shows the sectoral ego of the central and provincial governments that have not been fully “compliant” to relinquish the affairs of legal metrology administration to the districts/cities. As a matter of fact, the provisions in Article 404 of Law of Local Government has determined that the handover of personnel, funding, facilities and infrastructure, and documents (PFFD) business shall be carried out no later than 2 (two) years from the promulgation of the law.

Sudikno Mertokusumo states that in its function to protect human’s interests, the law’s main objective is to create an orderly and balanced society. To achieve orderliness within the society is aimed at protecting human’s interests. In achieving its objectives, the law is in charge of dividing the rights and obligations among individuals in the society, dividing authority, and regulating how to solve legal problems and maintain legal certainty. In line with this opinion, Article 28 D paragraph (1) of the 1945 Constitution of the Republic of Indonesia states that “everyone shall have the right to recognition, guarantees, protection and fair legal certainty, and equal treatment before the law”. Legal protection is essentially inherent in all citizens. Users of legal metrology services are consumers that must be protected from losses. The protection of public interests relating to measurement is not only a fundamental need for governments, traders, businessmen, consumers, and trade practices, but it also covers all aspects of the public interest relating to measurements such as health, safety, environment, and natural resources monitoring and control.

Currently, there are 54 markets under the management of Municipal Market Company of Medan. The 54 markets do not yet include the wholesale markets, market centers, modern markets, and supermarkets. Through these markets, every day people conduct trade transactions to meet their needs. Without legal certainty in the field of legal metrology, legal protection for consumers and business people in Medan is difficult to achieve.

5. Conclusions
Various obstacles in applying legal metrology have made the services cannot be performed optimally. Poor planning, limited budget, less optimal procedures for recalibration services outside the office (especially in traditional markets that have not applied orderly measurements), lack of calibration officers, and lack of support from local policies in the implementation of services are the current condition in almost all regions, including Medan. As a result, protection to public interests in the form of legal metrology services is not achieved. Such problems are initially caused by different treatments...
of legal metrology affairs between the Law of Local Government and LLM. Consequently, there has been an overlapping authority in administering legal metrology. This has affected the implementation in the regions, where each region implements a different policy in administering legal metrology affairs.

This study recommends that LLM needs to be revised. The society needs legal certainty in the administration of legal metrology. Adding factors such as the affirmation of authority, improvement of sanctions, and technical metrology should be incorporated in the laws to increase the competitiveness of RTIU in the districts/cities. Regulations regarding legal metrology in the Law of Local Government also need to be refined into obligatory affairs, not merely optional affairs because administering legal metrology does not solely serve as a source of Local Revenue, but it also has mandatory duties in the context of protecting public interests.

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