



The Effectiveness of Tangerang Mayor Regulation Number 111 of 2022: An Analysis Based on Lawrence M. Friedman's Legal System Theory

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Abstract

Plastic waste has become an increasingly serious environmental problem in Tangerang City, particularly due to the extensive use of single-use plastic bags in traditional markets, shopping centers, supermarkets, and restaurants. As a regulatory response, the Tangerang City Government enacted Tangerang Mayor Regulation Number 111 of 2022 concerning Restrictions on the Use of Plastic Bags. This study employs a normative-empirical legal research method using a statutory approach. The findings indicate that the implementation of Tangerang Mayor Regulation Number 111 of 2022 has not yet been optimal. From the perspective of legal substance, ambiguity remains regarding the “gradual” implementation of the policy in traditional markets. In terms of legal structure, public dissemination and regulatory supervision by the local government remain insufficient, resulting in a limited understanding among business operators of their obligation to use environmentally friendly shopping bags. From the perspective of legal culture, the prevailing public preference for free plastic bags and economic considerations among traders constitute major factors contributing to the low level of compliance with the regulation. The study concludes that the effective implementation of Tangerang Mayor Regulation Number 111 of 2022 requires stronger integration among legal substance, legal structure, and legal culture. Accordingly, strengthened public dissemination, consistent regulatory supervision, and greater collaboration among the local government, market administrators, business operators, and the public are necessary to achieve the intended reduction in plastic waste.

Keywords: Environmentally Friendly Shopping Bags; Legal System Theory; Plastic Waste.

A. Introduction

Plastic waste has become an increasingly serious environmental issue in Tangerang City, requiring more comprehensive and sustained intervention. As a densely populated center of economic activity within the metropolitan area surrounding Indonesia's capital, Tangerang City has experienced a continuous increase in waste generation. In 2023, the city's waste composition was dominated by food waste, accounting for 56.65% of the total waste volume. Plastic waste constituted the second-largest component at 19.58%, followed by paper and cardboard waste at 13.18% (Dinas Komunikasi dan Informatika, 2024). Of the total 514,478 tons of waste generated in 2023, approximately 100,735 tons consisted of plastic waste. This substantial volume of waste increases the risk of widespread environmental pollution. Public awareness and participation in waste management remain relatively limited, particularly in urban areas characterized by extensive consumption of plastic-based products. Moreover, contemporary consumption patterns that prioritize convenient single-use products have contributed significantly to the increasing volume of daily waste (Yulia Anhar et al, 2024).

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According to the Government Agency Performance Report of the Tangerang City Environmental Agency, total waste generation in Tangerang City increased from 514,330 tons per year in 2023, of which 385,460.44 tons were managed, to 798,406 tons per year in 2024 (Dinas Lingkungan Hidup Kota Tangerang, 2024). These figures indicate the increasing complexity of the city's waste-management challenges, particularly in relation to plastic waste. Based on the 2024 waste-generation data, plastic packaging constituted a significant component of the waste stream, while daily per capita waste generation increased from 0.7 kg/person/day to 0.86 kg/person/day (Dinas Lingkungan Hidup Kota Tangerang, 2024). This situation underscores the environmental challenges associated with plastic waste, particularly because conventional plastics are difficult to decompose naturally and may require approximately 100–500 years to fully degrade.

According to data from the National Waste Management Information System (*Sistem Informasi Pengelolaan Sampah Nasional* or SIPSN), waste generated by markets in Tangerang City accounted for 7.77% of the city's total waste generation in 2023, equivalent to approximately 141.9 tons per day. In 2024, this proportion increased to 16.92%, equivalent to approximately 220.21 tons per day (Kementerian Lingkungan Hidup, 2026). The severity of the problem is also reflected in the accumulation of plastic waste observed at Pasar Rubuh, one of the traditional markets in Tangerang City (Akbar, 2023). In response to the growing waste problem, the Tangerang City Government organized its first World Cleanup Day (WCD) campaign on September 20, 2025, as part of an annual global collective action to remove waste from the environment. The initiative reportedly collected 9,144.9 kilograms of waste in a single day (Fajarullah, 2025). The campaign involved members of the public, government institutions, environmental communities, school students, and university students. Participants collected, weighed, and classified waste into organic and inorganic categories, after which the organic waste was processed into compost and the inorganic waste was directed for recycling. Such community participation constitutes an important component of collective efforts to improve environmental cleanliness and waste management in Tangerang City.

In response to the persistent problem of plastic waste, the Tangerang City Government enacted Tangerang Mayor Regulation Number 111 of 2022 concerning Restrictions on the Use of Plastic Bags ("Tangerang Mayor Regulation 111/2022"). The Regulation is intended to protect the sustainability of living organisms, ecosystems, and environmental functions, as well as to safeguard the health, safety, and well-being of Tangerang City residents from the risks of environmental pollution and degradation associated with plastic bag consumption. In general, the Regulation seeks to restrict the use of plastic bags by encouraging a transition from single-use plastic bags to environmentally friendly shopping bags. These alternatives include reusable, non-plastic shopping bags that may be manufactured from biodegradable organic materials and used repeatedly.

Community participation is also essential to the implementation of this policy. The Tangerang City Government has encouraged residents to use reusable drinking bottles and food containers when purchasing food and beverages outside the home as part of broader efforts to reduce plastic waste. In addition, public awareness can be strengthened through direct educational initiatives and electronic media campaigns promoting the use of environmentally friendly and reusable shopping bags.

Accordingly, this study aims to analyze the implementation of restrictions on single-use plastic bags under Tangerang Mayor Regulation 111/2022, with particular emphasis on the challenges encountered in implementing the Regulation. The analysis employs Lawrence M.

Friedman's Legal System Theory, which conceptualizes the legal system through three principal components: legal structure, legal substance, and legal culture. Several previous studies provide relevant points of reference for positioning the present research within the existing literature.

Prasetyawan, Soetijono, and Mulyanto, in their article entitled "Tinjauan Hukum atas Implementasi Pembatasan Penggunaan Kantong Plastik Sekali Pakai" [Legal Review of the Implementation of Restrictions on Single-Use Plastic Bags], examine the implementation of plastic bag restriction policies in Banyuwangi and identify several implementation barriers, particularly limited public awareness and insufficient support from business operators. Similarly, Setiawati, Tawil, Nasrullah, and Mufti, in "Implementasi Kebijakan Pembatasan Plastik Sekali Pakai di Kelurahan Palupi Kota Palu" [Implementation of the Single-Use Plastic Restriction Policy in Palupi Subdistrict, Palu City], analyze the implementation of the Palu Mayor Regulation concerning restrictions on single-use plastics and identify insufficient policy dissemination and limited community participation as significant obstacles to its implementation.

A related study by Nurulhaq, Kismartini, and Amirudin, entitled "*Implementasi Kebijakan Pengurangan Kantong Plastik di Kota Bogor*" [Implementation of the Plastic Bag Reduction Policy in Bogor City], examines the implementation of the Bogor Mayor Regulation on plastic bag reduction through the dimensions of communication, resources, and bureaucracy. Meanwhile, Hanasi et al., in "*Analisis Implementasi Kebijakan Pembatasan Plastik Sekali Pakai di Kota Gorontalo*" [Analysis of the Implementation of the Single-Use Plastic Restriction Policy in Gorontalo City], investigate the efforts of the Gorontalo City Government to reduce plastic waste through Reduce, Reuse, and Recycle (3R) programs, waste banks, and environmental campaigns, while also identifying various challenges encountered in implementing these initiatives. From a broader legal-policy perspective, Fahrudin and Triadi, in "*Kebijakan Hukum Pemerintah Dalam Mengatasi Plastik Sekali Pakai dan Dampaknya Terhadap Lingkungan*" [Government Legal Policies for Addressing Single-Use Plastics and Their Environmental Impacts], examine government policies concerning restrictions on single-use plastics, their environmental implications, and the implementation of relevant regional regulations.

Taken together, these studies demonstrate that the implementation of single-use plastic restriction policies has been examined across several Indonesian jurisdictions, with recurring challenges involving public awareness, community participation, policy dissemination, business compliance, institutional resources, and bureaucratic implementation. However, the existing literature has primarily focused on jurisdictions such as Banyuwangi, Palu, Bogor, and Gorontalo or has examined single-use plastic regulation from a broader legal-policy perspective. The implementation of Tangerang Mayor Regulation 111/2022, particularly when systematically assessed through Lawrence M. Friedman's three interrelated components of legal substance, legal structure, and legal culture, remains insufficiently explored. This gap provides the analytical basis for the present study and distinguishes it from previous research on single-use plastic restriction policies in Indonesia.

B. Research Methodology

This study employs a normative legal research method, which examines law as a system of norms and rules governing conduct within society (Muhaimin, 2020). Accordingly, the research focuses on the examination of legal documents and relevant legal materials to

identify, interpret, and analyze the normative framework governing the legal issues under investigation. Through this method, the study seeks to identify normative gaps and inconsistencies within the applicable legal framework and to formulate relevant recommendations for future regulatory and policy improvement.

This study further applies a statutory approach to systematically examine legislation and regulations directly relevant to the legal issues under investigation. The research relies on library research and secondary data obtained from books, scholarly articles, previous studies, and relevant documentary sources (Sugiyono, 2017). The legal materials analyzed in this study are classified into primary and secondary legal materials. Primary legal materials consist of applicable legislation and regulations, particularly those governing restrictions on the use of plastic bags, while secondary legal materials include books, peer-reviewed journal articles, legal scholarship, and other academic sources relevant to the subject matter. These materials are systematically examined to assess the normative framework governing the restriction of single-use plastic bags in Tangerang City.

C. Results

The findings indicate that the implementation of Tangerang Mayor Regulation 111/2022 has not yet been optimal. From the perspective of legal substance, the Regulation establishes restrictions on the use of single-use plastic bags in shopping centers, traditional markets, supermarkets, and restaurants. However, ambiguity remains regarding the gradual implementation of the policy in traditional markets, particularly because the Regulation does not establish a clear timeframe for completing the implementation process.

From the perspective of legal structure, the Tangerang City Environmental Agency has conducted public dissemination activities concerning the reduction of plastic bag use. Nevertheless, these activities have not been implemented on a continuous basis and have not comprehensively reached business operators in traditional markets. Consequently, some business operators remain unaware of the existence and requirements of the policy.

From the perspective of legal culture, single-use plastic bags continue to be used in several traditional markets, including Pasar Lama in Tangerang City. Furthermore, coordination between market administrators and business operators regarding the provision of environmentally friendly shopping bags remains insufficient. The prevailing practice of using free plastic bags among consumers, together with the costs incurred by business operators in providing environmentally friendly alternatives, also constitutes an important condition affecting the implementation of the policy. These findings demonstrate that the effectiveness of Tangerang Mayor Regulation 111/2022 depends not only on the normative clarity of the Regulation but also on institutional implementation and the development of a legal culture supportive of reducing single-use plastic consumption.

D. Discussion

In his analysis of American legal history, Lawrence M. Friedman argues that the development of a legal system is influenced by various factors, including social change and shifts in societal values (Ab. Halim & Amni, 2023). In this context, Friedman emphasizes that a legal system does not operate in isolation but consists of three interrelated components that influence the effectiveness of law: legal substance, legal structure, and legal culture (Razak, 2023). These three components provide a theoretical framework for assessing how

legal norms, institutional arrangements, and societal attitudes interact in determining the effectiveness of a legal system.

As discussed in the background section, plastic waste constitutes one of the major categories of waste generated through everyday social and economic activities. A considerable proportion of plastic waste originates from consumption and commercial activities in traditional markets, supermarkets, retail stores, and other places where transactions involving goods take place (Sychabuddin & Romdhona, 2025). The extensive use of single-use plastic bags demonstrates that the environmental problems associated with plastic waste cannot be addressed solely through waste-management mechanisms. Rather, the issue must also be examined in relation to patterns of public behavior and the effectiveness of the legal framework governing the restriction of single-use plastic bags. From Friedman's perspective, this relationship underscores the importance of examining whether the applicable legal substance, institutional structure, and prevailing legal culture collectively support the effective implementation of plastic-reduction policies.

In this context, Lawrence M. Friedman's Legal System Theory provides a relevant analytical framework for examining the implementation of restrictions on single-use plastic bags under Tangerang Mayor Regulation 111/2022 (Al Kautsar & Muhammad, 2022). Several provisions of the Regulation are particularly relevant to this analysis. Article 2 establishes restrictions on the use of single-use plastic bags in shopping centers, traditional markets, supermarkets, and restaurants. Article 3 addresses communication, information dissemination, and educational measures that may be undertaken by the relevant government agency for business operators and the public. Article 4 stipulates the obligations of shopping center and traditional market administrators in implementing the single-use plastic bag restriction policy. Furthermore, Article 5 provides that the Local Government may provide environmentally friendly shopping bags within traditional markets, while Article 9 authorizes the Mayor to supervise the implementation of restrictions on the use of single-use plastic bags.

When these provisions are examined through Friedman's Legal System Theory, the three components of the legal system—legal substance, legal structure, and legal culture—do not appear to be fully integrated in the implementation of Tangerang Mayor Regulation 111/2022. The effectiveness of the Regulation therefore depends not merely on the existence of its normative provisions but also on the institutional capacity to implement and supervise those provisions and on the extent to which business operators and the public develop behavioral practices consistent with the regulatory objectives. The limitations in the integration of these three components can be identified as follows:

D.1 Legal Substance

Legal substance encompasses the body of legal rules applicable within a legal system, including both written and unwritten law. It comprises legal principles, legal norms, and judicial decisions that serve as references for the public and government authorities in the implementation and enforcement of law (Pahlevi, 2022). From a normative perspective, waste reduction is regulated under Article 20(1) of Law Number 18 of 2008 concerning Waste Management, which provides that waste reduction may be undertaken through several measures, including the restriction of waste generation. This provision provides the legal basis for the adoption of more specific regulatory measures aimed at reducing waste generation.

In the context of Tangerang City, the policy of restricting waste generation is further reflected in Tangerang Mayor Regulation Number 99 of 2018 concerning Tangerang City Policies and Strategies for the Management of Household Waste and Household-Like Waste (*“Tangerang City Jakstrada Regulation”*). The Regulation provides that waste reduction may be pursued through measures aimed at restricting the generation of household-like waste. Within the context of the present study, this regulatory framework provides a normative basis for policies aimed at reducing the use and resulting waste generation of single-use plastic bags.

The restriction of waste generation is further operationalized through Tangerang Mayor Regulation 111/2022, which specifically regulates restrictions on the use of single-use plastic bags. In its regulatory framework, Tangerang Mayor Regulation 111/2022 also takes into consideration Minister of Environment and Forestry Regulation Number P.75/MENLHK/SETJEN/KUM.1/10/2019 concerning the Roadmap for Waste Reduction by Producers. This Ministerial Regulation constitutes part of the national regulatory framework requiring producers and business operators, including those in the retail sector, to reduce waste generated from single-use products as part of their responsibility for sustainable waste management.

At the local level, Article 2(3) of Tangerang Mayor Regulation 111/2022 applies restrictions on the use of single-use plastic bags in shopping centers, traditional markets, supermarkets, and restaurants. Consistent with this provision, the Regulation restricts business operators in the designated sectors from providing single-use plastic bags to consumers in their commercial activities and requires the provision of environmentally friendly shopping bags as an alternative. This obligation constitutes an important component of the regulatory framework for reducing dependence on single-use plastic bags.

Nevertheless, a normative ambiguity arises from the transitional arrangement stipulated in Article 4(3) of Tangerang Mayor Regulation 111/2022, under which the implementation of the restriction for traditional market administrators is to be conducted “gradually.” The use of the term “gradually” without a clearly defined timeframe creates uncertainty regarding the duration and completion of the transitional period. Such ambiguity may lead to divergent interpretations among market administrators and business operators and may potentially be invoked as a justification for delaying compliance with the restrictions on single-use plastic bags. In the absence of a definite implementation deadline, the Regulation lacks a clear temporal benchmark for assessing when full compliance is expected. From the perspective of legal substance, this normative ambiguity may weaken legal certainty and hinder the consistent implementation of Tangerang Mayor Regulation 111/2022.

Furthermore, traditional market administrators play a central role in fulfilling the obligations established under Tangerang Mayor Regulation 111/2022. Article 4(1) of the Regulation expressly stipulates several obligations that must be fulfilled by traditional market administrators, namely: (a) enforcing the prohibition on the use of plastic bags within the markets under their management; (b) requiring all business operators conducting commercial activities within those markets to use environmentally friendly shopping bags; and (c) submitting reports to the relevant government agency concerning the use of environmentally friendly shopping bags in the commercial activities conducted within the markets under their management. These obligations demonstrate that traditional market administrators are not merely responsible for administrative management but also serve as key institutional actors in implementing the restriction on single-use plastic bags within traditional markets.

In the context of traditional markets, Pasar Lama Tangerang provides a relevant case for examining the implementation of Tangerang Mayor Regulation 111/2022. The market is managed by PT Tangerang Nusantara Global (TNG), a Regional-Owned Enterprise (*Badan Usaha Milik Daerah* or BUMD). Accordingly, as the market administrator, the BUMD's role extends beyond the administrative management of the market to encompass responsibilities associated with implementing the regulatory obligations applicable within the market. In particular, this role includes facilitating compliance by business operators with the restriction on single-use plastic bags and supporting the implementation of environmentally friendly shopping bag requirements as stipulated under the Regulation.

Furthermore, the implementation of the single-use plastic bag restriction in traditional markets is supported by Article 5 of Tangerang Mayor Regulation 111/2022, which provides that the Local Government may provide environmentally friendly shopping bags within traditional markets. Although this provision expressly assigns the facilitative role to the Local Government, effective implementation at the market level also requires coordination with traditional market administrators. In this context, market administrators may play an important supporting role by facilitating the availability and distribution of environmentally friendly shopping bags and by communicating the relevant regulatory requirements to business operators. The absence of adequate information, guidance, and supporting facilities may hinder business operators' understanding of and compliance with the restrictions on single-use plastic bags. Accordingly, where a Regional-Owned Enterprise (BUMD) serves as the administrator of a traditional market, limitations in its facilitative and coordinative role may constitute an institutional impediment to the effective implementation of Tangerang Mayor Regulation 111/2022.

With regard to regulatory oversight, Article 8(b) of the Tangerang City Jakstrada Regulation provides a normative basis for monitoring and evaluating the implementation of the city's waste-management policies by the Mayor. Consequently, the restriction of single-use plastic bags should not be regarded solely as an obligation imposed on traditional market administrators. Rather, it forms part of the broader municipal waste-reduction strategy that requires continuous monitoring and evaluation by the Local Government. Such oversight is necessary to assess the implementation of the policy, identify regulatory and institutional constraints, and ensure that the objectives of reducing single-use plastic waste are pursued consistently within traditional markets.

D.2 Legal Structure

Legal structure refers to the institutional framework that supports the functioning of a legal system. This component encompasses the institutional arrangements of the legal system, legal institutions, law enforcement authorities, and the allocation of authority among the relevant institutional actors. An institutional structure that is unable to effectively operationalize legal rules may contribute to a lower level of legal compliance. Accordingly, the effectiveness of a regulatory framework depends not only on the existence of substantive legal provisions but also on the capacity of the responsible institutions to implement, communicate, supervise, and evaluate those provisions.

In the context of waste management, Article 20(2) of Law Number 18 of 2008 concerning Waste Management requires local governments to establish gradual waste-reduction targets within a specified period. Restrictions on the use of single-use plastic bags constitute part of this broader waste-reduction framework and are operationalized at the local level through Tangerang Mayor Regulation 111/2022. To support the effective

implementation of these waste-reduction measures, Article 3(1) of Tangerang Mayor Regulation 111/2022 authorizes the relevant government agency to provide Communication, Information, and Education (*Komunikasi, Informasi, dan Edukasi* or KIE) concerning the policy to business operators. Under the Regulation, the relevant agency is the local government institution responsible for waste-management affairs, namely the Tangerang City Environmental Agency (*Dinas Lingkungan Hidup Kota Tangerang*). The Agency therefore occupies an important institutional position in communicating the regulatory requirements to business operators and supporting the implementation of the single-use plastic bag restriction policy.

Furthermore, pursuant to Article 9 of Tangerang Mayor Regulation 111/2022, the Mayor is responsible for supervising the implementation of the policy. Effective supervision, however, should be supported by adequate Communication, Information, and Education (KIE) activities to ensure that business operators and the public are sufficiently informed about the regulatory requirements. In this regard, available documentary evidence indicates that the Tangerang City Environmental Agency (DLH), as the competent local government institution, has conducted several public dissemination and educational activities concerning the reduction of single-use plastic bags.

In 2024, the DLH conducted educational and awareness-raising activities in schools and within the *Dharma Wanita* organization as part of the commemoration of National Waste Awareness Day (*Hari Peduli Sampah Nasional*) on February 21, 2024 ([Berita Tangerang, 2024](#)). These activities constituted part of the local government's efforts to increase public awareness of waste reduction and environmentally responsible behavior.

In March 2025, the Tangerang City Environmental Agency conducted another public awareness initiative through the Plastic-Free Ramadan Movement (*Gerakan Ramadan Tanpa Plastik*). The initiative targeted the increased consumption of food and beverages during Ramadan, which may contribute to the use of disposable plastic packaging and shopping bags. Through this campaign, residents were encouraged to bring their own reusable food containers and environmentally friendly shopping bags when purchasing food for *iftar*, thereby reducing the consumption of single-use plastics. This initiative was consistent with the waste-reduction objectives underlying Tangerang Mayor Regulation 111/2022 ([Tangerangkota.go.id, 2025](#)).

These initiatives demonstrate that the DLH has undertaken KIE-related activities relevant to the reduction of single-use plastics. Nevertheless, the existence of such activities alone does not necessarily establish that KIE has been implemented comprehensively and continuously across all regulatory target groups, particularly business operators and market administrators in traditional markets. From the perspective of legal structure, the effectiveness of the policy therefore depends on the institutional capacity of the DLH and other relevant authorities to ensure that dissemination, education, and supervision are conducted systematically, consistently, and in accordance with the groups specifically regulated under Tangerang Mayor Regulation 111/2022.

These dissemination activities demonstrate that, as part of the legal structure, the Tangerang City Environmental Agency (DLH) has undertaken efforts to communicate the policy on restricting the use of single-use plastic bags. However, the implementation of dissemination activities in schools and within the *Dharma Wanita* organization indicates a potential mismatch between the target groups of these activities and the principal regulatory subjects addressed by Tangerang Mayor Regulation 111/2022. The Regulation specifically

governs restrictions on the use of single-use plastic bags in shopping centers, traditional markets, supermarkets, and restaurants. Accordingly, although educational activities directed at schools and community organizations may contribute to broader environmental awareness, they do not directly target the business operators and market administrators responsible for implementing the regulatory obligations within the sectors expressly covered by the Regulation. From the perspective of legal structure, this discrepancy suggests that the effectiveness of KIE activities depends not only on their implementation but also on their ability to reach the regulatory actors directly responsible for compliance with Tangerang Mayor Regulation 111/2022.

By comparison, although data on policy dissemination activities in the Special Capital Region of Jakarta (DKI Jakarta) are not consistently available for every year, the initiatives undertaken by the Jakarta Provincial Government may provide a useful comparative reference for Tangerang City in strengthening the dissemination of restrictions on single-use plastic bags, particularly in traditional markets. Jakarta has demonstrated relatively sustained efforts to disseminate the policy across different target groups, including market administrators, business operators, and consumers. These initiatives followed the enactment of Governor of the Special Capital Region of Jakarta Regulation Number 142 of 2019 concerning the Mandatory Use of Environmentally Friendly Shopping Bags in Shopping Centers, Supermarkets, and Traditional Markets.

In 2020, the Jakarta Government conducted dissemination activities targeting business operators within markets managed by Perumda Pasar Jaya. The program combined policy dissemination with discussions involving local business operators concerning alternatives to single-use plastic bags. In addition to providing information and facilitating dialogue, the initiative also included the provision of environmentally friendly shopping bags as an alternative for business operators ([Plasticdiet.id, 2020](#)). This approach illustrates an implementation model in which regulatory communication is accompanied by practical measures designed to facilitate compliance.

A broader institutional approach was undertaken in 2021, when the Gerakan Indonesia Diet Kantong Plastik, in collaboration with the DKI Jakarta Environmental Agency, conducted dissemination activities for traditional markets under the management of Perumda Pasar Jaya. The program was attended by 119 market managers and focused primarily on providing guidance concerning the transition from single-use plastic bags to environmentally friendly shopping bags ([Plasticdiet.id, 2021](#)). The involvement of market managers is particularly relevant because these institutional actors occupy a strategic position between government authorities and individual business operators in implementing plastic-reduction policies at the market level.

Further dissemination efforts were undertaken in 2024, when the Central Jakarta Administrative City Government launched an initiative at Rawasari Market to minimize plastic waste through the reuse of *spunbond* shopping bags and *thinwall* food containers ([Surapati, 2024](#)). The initiative involved direct engagement with market traders and visitors, encouraging them to discontinue the use of single-use plastic bags for carrying purchased goods. This approach expanded the target of policy communication beyond institutional market administrators to include both business operators and consumers.

In 2026, plastic-reduction efforts in Jakarta were further reinforced through the *Gerakan Indonesia Bebas Plastik Sekali Pakai* (Indonesia Free from Single-Use Plastics Movement). The initiative emphasized the importance of reducing plastic consumption in traditional markets,

which were identified as significant contributors to plastic leakage into rivers and marine environments. The policy direction also placed greater emphasis on regulatory enforcement and behavioral change, accompanied by strengthened supervision in high-traffic traditional markets, including Tanah Abang, Pasar Minggu, and Kramat Jati (Faqir, 2021).

From the perspective of legal structure, Jakarta's experience provides a relevant comparative reference for Tangerang City because policy dissemination has been directed more specifically toward actors involved in market-level implementation, including market administrators, traders, and consumers. The comparative value lies not merely in the frequency of dissemination activities but also in their targeting and integration with practical compliance measures, institutional coordination, and regulatory supervision. Accordingly, Tangerang City could strengthen the implementation of Tangerang Mayor Regulation 111/2022 by directing KIE activities more systematically toward traditional market administrators and business operators, while simultaneously providing practical guidance and strengthening continuous supervision within the markets covered by the Regulation.

In contrast, available information concerning Tangerang City indicates that some business operators remain unaware of the policy restricting the use of single-use plastic bags. This condition suggests that policy dissemination has not yet been implemented comprehensively and consistently across the relevant regulatory target groups. From the perspective of legal structure, this limitation is particularly significant because business operators constitute one of the principal actors responsible for complying with the requirements established under Tangerang Mayor Regulation 111/2022. Accordingly, effective regulatory supervision should be supported by consistent and appropriately targeted Communication, Information, and Education (KIE) activities conducted by the Tangerang City Environmental Agency (DLH). Strengthening the continuity and coverage of KIE activities is therefore important to ensure that business operators are adequately informed of their regulatory obligations before compliance is systematically monitored and evaluated.

D.3 Legal Culture

In Friedman's Legal System Theory, legal culture constitutes an important dimension of the legal system that interacts with legal substance and legal structure. Legal culture concerns the attitudes, awareness, acceptance, and understanding of members of society regarding applicable legal norms and their implementation (Pahlevi, 2022). In this respect, the effectiveness of a legal rule is influenced not only by the quality of its normative provisions and institutional implementation but also by the extent to which the regulated community understands, accepts, and incorporates those norms into everyday practices.

In the context of Article 2(3) of Tangerang Mayor Regulation 111/2022, which regulates restrictions on the use of single-use plastic bags in traditional markets, available information indicates that the continued use of single-use plastic bags remains evident in commercial activities. Media reports have highlighted waste-management problems associated with market activities, including conditions in the Pasar Sipun area of Cipondoh, where accumulated market waste reportedly obstructed roads and entered waterways, contributing to the obstruction of water flow (Arfiansyah, 2021). Such conditions illustrate the broader environmental challenges associated with waste generation in traditional market environments.

Furthermore, observations conducted for this study indicate that single-use plastic bags continue to be used in several traditional markets, including Pasar Lama Tangerang. At one grocery store, Toko Anes, information obtained during the observation indicated that single-

use plastic bags were still being used in commercial transactions. From the perspective of legal culture, the continued use of such bags after the introduction of the regulatory restriction may indicate that the policy has not yet been fully internalized in everyday commercial practices. This condition highlights the importance of examining the interaction between regulatory awareness, established consumer and business practices, and institutional efforts to promote behavioral change in the implementation of Tangerang Mayor Regulation 111/2022.

Furthermore, Article 4(2) of Tangerang Mayor Regulation 111/2022 provides that shopping center and traditional market administrators must cooperate with business operators in providing environmentally friendly shopping bags. In implementing this provision, market administrators may also establish cooperation with Micro, Small, and Medium Enterprises (*Usaha Mikro, Kecil, dan Menengah* or MSMEs), thereby allowing the provision of environmentally friendly shopping bags to be supported through a collaborative mechanism rather than placing the responsibility exclusively on individual business operators. Such cooperation could facilitate the availability of affordable alternatives to single-use plastic bags and support compliance with the Regulation.

However, available information indicates that concrete coordination and cooperation between market administrators and business operators in implementing this provision remain limited ([Tangerangnews.com](https://tangerangnews.com), 2026). This limitation is also relevant to the dissemination of information concerning restrictions on single-use plastic bags and the practical provision of environmentally friendly alternatives for traders. From the perspective of legal culture, inadequate coordination and limited regulatory communication may constrain the development of awareness and compliance among business operators. Accordingly, strengthening cooperation between market administrators, business operators, and other relevant stakeholders is important not only for facilitating access to environmentally friendly shopping bags but also for fostering a culture of compliance with Tangerang Mayor Regulation 111/2022.

Furthermore, the implementation of the policy requiring a transition from single-use plastic bags to environmentally friendly shopping bags continues to face several practical challenges, particularly in traditional markets. One of the principal challenges concerns the characteristics of commodities commonly sold in these markets. Traditional market activities are dominated by wet products, including fish, chicken, beef, wet vegetables, and other fresh commodities, which require water-resistant and leak-proof packaging to ensure safe handling ([Karianga, 2024](#)). Environmentally friendly shopping bags made from materials such as *spunbond* may not provide the same level of resistance to moisture and leakage required for such products. Consequently, the transition to environmentally friendly alternatives cannot be separated from the practical requirements associated with the types of commodities traded in traditional markets.

Another challenge arises from the tension between regulatory objectives and the economic circumstances of small-scale traders ([Theconversation.com](https://theconversation.com), 2020). Unlike shopping centers and supermarkets, which generally operate under centralized management structures and possess greater financial resources, many traders in traditional markets conduct small-scale businesses with relatively limited profit margins. The cost difference between conventional plastic bags and environmentally friendly alternatives may therefore influence their willingness and capacity to comply with the policy. For example, *spunbond* shopping bags are reportedly sold at approximately IDR 700–1,500 per bag, whereas

conventional plastic bags cost approximately IDR 8,000–10,000 for a package of 50 bags, equivalent to approximately IDR 160–200 per bag (Defitri, 2022). This substantial price difference may create an additional operational burden for small-scale traders and consequently affect their decision to transition to environmentally friendly shopping bags.

Consumer expectations may further complicate the implementation of the policy. Some consumers continue to expect traders to provide shopping bags free of charge and may be reluctant to purchase goods when such bags are not provided (Listiani & Prabawati, 2023). From the perspective of legal culture, these conditions demonstrate that compliance with restrictions on single-use plastic bags is influenced not only by legal awareness but also by established commercial practices, consumer expectations, the functional suitability of alternative packaging, and the economic capacity of traders. Accordingly, strengthening legal culture in this context requires more than merely communicating the prohibition. Effective implementation also requires measures capable of facilitating behavioral adaptation among both traders and consumers while taking into account the practical and economic characteristics of traditional market activities.

In addition to economic considerations, the implementation of the policy is also influenced by long-established consumer habits. For decades, consumers have been accustomed to receiving single-use plastic bags free of charge as part of everyday commercial transactions (Aranditio, 2023). This established practice may contribute to consumer reluctance to bring reusable shopping bags or to purchase alternative bags at a higher cost (Wantu et al., 2026). Such consumer behavior may, in turn, create concerns among traders that restricting the provision of single-use plastic bags could discourage customers from purchasing goods from their businesses. Nevertheless, these concerns cannot in themselves justify non-compliance with the applicable regulatory requirements (Setiawati et al., 2025).

The implementation of a comparable policy in DKI Jakarta provides a useful reference for addressing such behavioral challenges. In 2024, the DKI Jakarta Environmental Agency introduced the *Gerakan Gunakan Ulang Spunbond di Pasar Rakyat* (Spunbond Reuse Movement in Traditional Markets). As part of this initiative, the Agency provided *Spunbox* facilities in several traditional markets, allowing consumers who had forgotten to bring reusable shopping bags from home to obtain *spunbond* bags as needed (Plasticdiet.id, 2024). This initiative illustrates how government intervention may facilitate behavioral adaptation by providing practical alternatives during the transition away from single-use plastic bags.

From the perspective of legal culture, resistance to restrictions on single-use plastic bags may reflect the process of adapting long-established consumer habits to new regulatory expectations. Such resistance does not necessarily demonstrate the ineffectiveness of the regulation itself; rather, it highlights the importance of creating conditions that facilitate behavioral change. The experience of DKI Jakarta suggests that regulatory implementation may be strengthened when restrictions are accompanied by consistent policy dissemination, adequate supervision, and accessible practical alternatives. Accordingly, the implementation of Tangerang Mayor Regulation 111/2022 may require not only regulatory enforcement but also sustained institutional support capable of gradually encouraging traders and consumers to internalize environmentally responsible shopping practices.

Accordingly, public resistance should not necessarily be regarded as the principal obstacle to the implementation of the policy but rather as part of a transitional process involving changes in established social habits and lifestyles. Behavioral change aimed at reducing dependence on single-use plastic bags is unlikely to develop effectively if the

responsibility for implementing the policy is imposed solely on business operators. Business operators cannot reasonably be expected to fully understand and comply with regulatory requirements without adequate information, guidance, and policy dissemination. Therefore, effective implementation requires coordinated participation among the local government, market administrators, business operators, and the public.

In this context, legal effectiveness may be understood as the capacity of law not only to regulate conduct but also to encourage compliance with applicable legal norms. A legal rule may be regarded as effective when its implementation is supported by juridical, sociological, and philosophical dimensions. Legal effectiveness is also influenced by several interrelated factors, including the quality of the legal rules themselves, the capacity of law enforcement and implementing institutions, the availability of supporting facilities and infrastructure, and the attitudes and behavior of the regulated community. These factors correspond closely to the components of Lawrence M. Friedman's Legal System Theory. The quality and clarity of legal rules are reflected in legal substance; the capacity of government authorities, market administrators, and supporting facilities relates to legal structure; while public awareness, established habits, attitudes, and patterns of compliance constitute elements of legal culture.

Based on the preceding analysis, the effectiveness of the restriction on single-use plastic bags under Tangerang Mayor Regulation 111/2022 cannot be determined solely by the existence of the Regulation. Rather, its effectiveness depends on the interaction and integration of legal substance, legal structure, and legal culture. Normative clarity must be accompanied by consistent institutional implementation, appropriately targeted policy dissemination, adequate supporting facilities, effective supervision, and the gradual development of compliance among business operators and consumers. Accordingly, Friedman's Legal System Theory provides an appropriate analytical framework for assessing the effectiveness of Tangerang Mayor Regulation 111/2022 and identifying the factors that continue to constrain its implementation.

E. Conclusion

Based on Lawrence M. Friedman's Legal System Theory, the implementation of Tangerang Mayor Regulation 111/2022 has not yet achieved an optimal level of effectiveness because its three fundamental components—legal substance, legal structure, and legal culture—have not been adequately integrated. From the perspective of legal substance, although the Regulation provides a normative framework for restricting the use of single-use plastic bags, uncertainty remains regarding the “gradual” implementation of the policy in traditional markets due to the absence of a clearly defined timeframe. This normative ambiguity may create uncertainty as to when full compliance with the restriction is expected.

From the perspective of legal structure, policy dissemination by the Local Government and market administrators has not been implemented comprehensively and consistently, resulting in some business operators remaining insufficiently informed about their regulatory obligations. Effective supervision should therefore be supported by continuous and appropriately targeted Communication, Information, and Education (KIE) activities, particularly for market administrators and business operators who are directly responsible for implementing the Regulation. From the perspective of legal culture, long-established consumer expectations regarding the free provision of plastic bags, together with the economic and commercial considerations faced by business operators, continue to influence the level of compliance with the policy.

Accordingly, the effectiveness of Tangerang Mayor Regulation 111/2022 requires greater integration among legal substance, legal structure, and legal culture. Its implementation should be strengthened through consistent and targeted policy dissemination, continuous supervision, adequate institutional coordination, and cooperation among the Local Government, market administrators, business operators, and the public. Such an integrated approach is necessary to promote regulatory compliance and support the achievement of the Regulation's objective of reducing the use of single-use plastic bags in Tangerang City.

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