
**BRIDGING THE GAP EVALUATING THE FAILURE OF LEGAL EDUCATION AND
INCENTIVES IN PROMOTING CIRCULAR ECONOMY ACTION IN PADANG CITY**

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Abstract

This study analyzes the knowledge-action gap of Community-Based Waste Management (CBM) in Padang City, focusing on the effectiveness of legal education. Using descriptive qualitative methods, in-depth interviews were conducted with five community informants who understand the 3R principles but are inconsistent in waste sorting, and one legal expert. The results indicate that legal education cannot address structural barriers. Economic and operational factors are stronger determinants of citizen behavior than knowledge of legal obligations. A key failing is the lack of legal guarantees for incentives, which are crucial for behavioral change. It is concluded that the effectiveness of legal education is severely hampered by weak regulatory support. Legal reforms are recommended to integrate mandatory incentive guarantees and shift the narrative from sanctions to legal rights, supporting Padang City's Circular Economy goals.

Keywords: Community-Based Waste Management (CBM), Circular Economy, Knowledge-Action Gap, Legal Incentives Guarantee, Structural Barriers

A. Introduction

Padang City plays a vital role as the administrative capital and main economic center of West Sumatra Province. Its location is strategically located on the central west coast of Sumatra Island. Padang's geomorphology is characterized by lowlands stretching from the Indian Ocean coastline, surrounded by the volcanic Bukit Barisan mountain range. Its climate, like that of most of Indonesia, is tropical, with temperatures and humidity levels tending to be high throughout the year.

As the main and largest urban center in West Sumatra, Padang City has a high population density, accounting for approximately 15% of the province's total population (Central Statistics Agency of West Sumatra Province, 2021). The city's economic activity is dominated by the trade, services, and government sectors. This concentration of activity and population drives high levels of consumption, which directly correlates with the ever-increasing volume of municipal solid waste.

Currently, resource management in Padang is still dominated by a conventional linear economic model. This model, characterized by a "take-use-dispose" approach, systematically maximizes short-term profits and output while neglecting environmental sustainability. This practice has resulted in a significant accumulation of waste, burdening landfills and causing ecological damage. Therefore, adopting a Circular Economy is considered an urgent and strategic effort to reduce waste generation and improve environmental quality in Padang City (Fadhillah & Fahreza, 2023).

The global transition to a circular economy demands a radical shift in community behavior from a "take-make-dispose" model to a closed-loop model (Webster, 2015). In Indonesia, this implementation is realized through Community-Based Waste Management (CWRM). Padang City, as a regional center, faces high pressure on landfill facilities. Although Padang City has a strong legal framework, namely Regional Regulation (Perda) Number 21 of 2012 concerning Waste Management (Padang City Government, 2012), its implementation remains low (Widodo, 2019).

A crucial phenomenon found in Padang City is the knowledge-action gap. The community receives education about the 3R principles (Reduce, Reuse, Recycle), but the level of implementation in households is inconsistent. This indicates that the legal education and outreach implemented by the Padang City Government (based on Mayoral Regulation No. 44 of 2018) failed to bridge knowledge into action because they failed to address structural barriers such as economic and infrastructure (Lubis & Siregar, 2021). The role of legal education in this context is crucial in communicating guaranteed legal incentives to address the economic barriers that determine community habits.

This study aims to analyze the gap between knowledge and action in the context of PSBM in Padang, by investigating the failure of the legal education system to address non-legal barriers, which ultimately hinder the achievement of circular economy goals. This is crucial because waste management knowledge will only be effective if supported by adequate economic conditions (Edinov & Wirawan, 2025). Therefore, based on that reality, researchers are interested in conducting related research, with the title of the research presented: "Bridging the Gap: Evaluating the Failure of Legal Education and Incentives in Promoting Circular Economy Action in Padang City."

B. Literature Review and Hypothesis Development

Circular Economy Concept, Regulation, and Local Implementation

The Circular Economy is a paradigm that aims to minimize waste and preserve the value of materials for as long as possible (Webster, 2015). In Indonesia, the transition to a circular economy relies heavily on the waste management sector, which is regulated by Law No. 18 of 2008. The implementation of this regulation at the regional level is realized through initiatives such as Community-Based Waste Management (PSBM) and the establishment of Waste Banks. In Padang City, the primary legal framework is Regional Regulation (Perda) No. 21 of 2012 concerning Waste Management (Padang City Government, 2012). This regulation stipulates the obligation to separate waste at source (Article 48) and sanctions for violators (Article 63). However, Widodo (2019) notes that local regulations are often strong in terms of regulation and sanctions, but weak in facilitating participation and sustainability. This failure is exacerbated by implementing regulations (Perwali No. 44 of 2018) that do not fully integrate the necessary incentive mechanisms.

Legal Education and the Knowledge-Action Gap

Legal education plays a crucial role in transforming written norms into public awareness and behavior (Mihardja & Setiawan, 2016). In the context of PSBM in Padang, education must bridge knowledge of the 3R principles into concrete actions. This study focuses on the Knowledge-Action Gap identified, where people know how to separate waste due to education but do not do so consistently, or even at all. This gap indicates that the problem is not cognitive, but rather non-legal barriers that cannot be overcome with knowledge alone. This gap must be analyzed from a legal perspective, namely the failure of legal education to communicate legal solutions to these barriers.

Structural Barriers and the Need for Legal Incentive Guarantees

1. Economic Barriers and Local Conditions

Edinov and Wirawan (2025), in their research in Padang City, empirically demonstrated that the community's economic condition is a significant determinant of waste management habits. If the economic benefits of waste sorting are deemed disproportionate to the time and effort involved, positive behavior will collapse. The failure of legal education lies in its inability to guarantee the definite economic value of waste sorting.

2. Failure of Incentive Regulation

Waste Banks, as a facility in Padang (Syamsir & Ramadhan, 2023), will only be effective if protected by legal guarantees. Junaidi and Ambarita (2022) emphasized the need for clear legal incentive regulations, such as differentiated cleaning levy rates. If legal education fails to communicate the public's right to reduced fees, the public will not see any legal benefits that guarantee compensation for their efforts.

3. Implications for Innovation Adoption

The failure of education to shape conscious behavior also impacts innovation adoption. Edinov and Fauzi (2023) found that the implementation of advanced technologies such as Artificial Intelligence (AI) in waste management will only be effective if preceded by conscious public behavior. This means that legal education must prioritize eliminating economic/operational barriers as a prerequisite for technological success and achieving a circular economy. Therefore, the failure of legal education in Padang City lies in its inability to integrate legal incentive guarantees that can address the economic and operational barriers to community participation, resulting in a widening gap between knowledge and action.

Hypothesis Formulation

Based on a literature review regarding the importance of incentive regulations to encourage concrete action amidst the knowledge-action gap in Padang City, this research hypothesis is formulated that the quality of legal education in Padang City fails to bridge the knowledge-action gap because it does not integrate legal incentive guarantees stipulated in Regional Regulations to address the economic and operational barriers that are the primary determinants of community behavior in Community-Based Waste Management.

C. Research Method

Research Approach and Type

This study employed a qualitative approach with a descriptive-analytical approach. The qualitative approach was chosen because it aimed to gain a deeper understanding of the barrier factors (economic, operational, and incentive barriers) that cause a disconnect between public knowledge and action in Padang City. An analysis was conducted of the relevant legal framework,

namely Padang City Regional Regulation Number 21 of 2012 (Padang City Government, 2012) and its implementing regulations, to analyze the failure of legal education in addressing these barriers.

Location and Data Sources

This research was conducted in Padang City, West Sumatra Province. The location was selected based on the existence of Waste Banks as a Community-Based Waste Management (PSBM) initiative and the validity of specific local regulations, namely Padang City Regional Regulation No. 21 of 2012. Data sources consisted of primary and secondary data. Primary data were obtained directly through in-depth interviews with five community informants, selected purposively from areas where Waste Banks are located, but these informants were known to be inactive or inconsistent in sorting waste. The purpose of this selection was to specifically explore the reasons and barriers behind the gap between knowledge (knowledge of the 3Rs) and action (failure to sort). A legal expert selected from among academics in environmental or constitutional law in Padang with expertise in regional and environmental regulations served as a validation and analysis tool for the Regional Regulation. Secondary data included official documents such as Padang City Regulation No. 21 of 2012, as well as relevant academic literature related to the circular economy, legal education, and waste management.

Data Collection Techniques

The data collection techniques used included: In-depth interviews conducted in a structured manner using interview guidelines to explore three key areas: (a) Public knowledge of the 3Rs and the Regional Regulation; (b) Practical/economic reasons and barriers leading to non-action; and (c) Expert analysis of the failure of incentive regulations. A documentary study was conducted of the relevant Regional Regulations and Mayoral Regulations in Padang City to identify articles governing obligations, sanctions, and, most importantly, incentives (or lack thereof) for PSBM practitioners.

Data Analysis Techniques

Data were analyzed qualitatively using the following techniques: Transcriptions of all interview recordings were transcribed into text, focusing on the causal relationship between "Legal

Knowledge" and "Non-Legal Barriers" (economic/operational); Triangulation of community findings, which were compared and confirmed with analysis from legal experts (H1) and the contents of legal documents (local regulations). This technique was used to ensure the validity of the results, particularly in confirming that these operational and economic barriers were indeed due to weaknesses in legal regulations and the failure to socialize incentives; and Theoretical Synthesis: The triangulation results were then synthesized to construct an argument explaining why legal education in Padang City failed to bridge the knowledge-action gap, allowing for the validation or revision of hypotheses.

D. Discussion

The Circular Economy is a framework that goes beyond conventional waste management concepts, striving to maximize the use value of materials and products sustainably (Webster, 2015). At the local level, particularly in Padang City, the implementation of a circular economy is a strategic development instrument with profound socio-economic implications. Through PSBM activities, the circular economy has the potential to create recycling-based businesses, which can directly increase community incomes, reduce household expenses, and contribute to regional economic growth and poverty alleviation efforts.

Knowledge and Action Gap and the Failure of the Educational Bridge

The results of this study firmly validate the initial hypothesis regarding the Knowledge and Action Gap among the people of Padang City. The public has basic knowledge of the 3Rs and their obligations from legal education, but this knowledge has failed to be transformed into consistent action. This failure indicates that the main problem lies not in the cognitive aspect, but in the structural weaknesses of the system that should be facilitated by law (Mihardja & Setiawan, 2016). This gap is ironic because it occurs amidst the existence of the Waste Bank. Waste Banks, which should be a bridge for implementing PSBM (Syamsir & Ramadhan, 2023), are ineffective due to the lack of strong legal and operational guarantees. Communities choose not to sort waste due to practical and economic barriers that outweigh the sanctions stipulated in the Regional Regulation.

Regional Regulation No. 21/2012 and the Dominance of Economic Barriers

The discussion found that Padang City Regional Regulation No. 21 of 2012 (Padang City Government, 2012) has an outdated legal orientation; it is strong in regulating obligations and sanctions (Widodo, 2019), but weak in facilitating Circular Economy incentives (Webster, 2015). The dominance of economic barriers in determining community behavior is crucial. This finding is supported by a study by Edinov and Wirawan (2025), who empirically found that community economic conditions are a determining factor in waste management habits in Padang City.

Current legal education fails to overcome these economic forces because the implementation of the Regional Regulation and related education does not provide measurable legal compensation, namely differentiation in cleaning fee rates. Communities pay the full levy even though they have made efforts to sort waste. Legal experts confirm that without mandatory legal incentives (Junaidi & Ambarita, 2022) stipulated in regulations, education will remain merely information without any exchange value that benefits residents.

Weaknesses of the Waste Bank Partnership: The operational problems of the Waste Bank reflect the failure of Regional Regulation and Mayoral Regulation No. 44 of 2018 to formalize and support the Waste Bank as a reliable waste management partner. This failure eliminates the legal security needed by communities to invest time and effort in sorting waste.

Implications of Legal Education Failure on Future Innovation

The failure of legal education to eliminate these structural barriers has long-term implications for Padang City's ambition to adopt advanced solutions in the Circular Economy. Edinov and Fauzi (2023) emphasize that the implementation of advanced technologies such as Artificial Intelligence (AI) in waste management can only be successful if supported by conscious public behavior. If Padang residents are already familiar with the 3R's but are still hampered by economic factors that the law fails to address (as the findings suggest), then any investment in new technology or circular systems will be wasted (Zaman & Lehmann, 2013). Therefore, the discussion concludes that legal education in Padang City must be reformed. It must serve as a tool to communicate rights and guarantee legal incentives that can remove economic and operational barriers to the community, not simply a tool to inform them of the threat of sanctions.

The Urgency of Legal Strategy Reform

The most important implication of these findings is the urgency for the Padang City Government to completely reform its education and regulatory strategies. Laws must be oriented toward facilitation, not just compliance. Reform must include Mandatory Incentive Regulations: Regional regulations or mayoral regulations must be immediately amended to regulate legally binding tariff differentiation for households actively participating in PSBM.

Rights-Based Education: Education must shift the focus from Sanctions to Rights and Legal Benefits for waste sorters. This step will create an "incentive law" that can bridge the knowledge-action gap, so that PSBM can become a driving force for a sustainable Circular Economy in Padang City.

E. Conclusion

This study validates the initial hypothesis by concluding that the quality of legal education in Padang City has completely failed to bridge the knowledge-action gap in Community-Based Waste Management (CBSW). This failure is not due to a lack of basic public knowledge about the 3Rs, but rather because the education system has proven incapable of addressing the structural economic and operational barriers faced by residents. Economic factors, such as the requirement to pay the full cleaning fee even after sorting waste, have proven to be a far more powerful determinant of citizen behavior than the threat of punishment. This gap arises because local regulations have not integrated clear legal incentives, making CBSW initiatives, such as the Waste Bank, even if available, ineffective due to the lack of legally guaranteed financial benefits.

The implications of this legal education failure are profound, hindering Padang City's transformation toward a Circular Economy and hindering the adoption of future innovations. When guaranteed measurable financial benefits are not legally established, communities lose their primary motivation to act, and education loses its legitimacy. Therefore, it is recommended that the Padang City Government undertake a comprehensive overhaul of its legal and educational strategies. These reforms must include regulatory changes to mandate legal incentives, such as fee discounts for sorters, and shift the educational narrative from a focus on sanctions to a focus on legally guaranteed rights and financial benefits. This step is crucial to creating the legal certainty needed to encourage sustainable PSBM (Small-Scale Social Restrictions) activities.

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