



The Positive Impacts of Social Media Utilization by Waste Bank Communities in Enhancing Community Participation in Waste Management in Semarang City

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Abstract

This article discusses the role of social media in enhancing public participation in addressing waste-related issues. The aim of this research is to explore how waste bank communities increase community involvement in waste management. A qualitative approach was employed to gain an in-depth understanding of the role of social media in shaping environmental awareness. Data collection techniques included observation, interviews, and documentation. The findings indicate that the use of social media by waste bank communities is highly effective in increasing public participation, as it serves a strategic role as a tool for education, collaboration, and motivation. Through these platforms, the public gains accessible and relevant knowledge about daily waste management practices, leading to increased awareness and active involvement in waste handling and segregation from the household level. Ultimately, this fosters critical awareness and the development of environmental citizenship.

Keywords: *Positive Impact; Social Media; Waste Bank; Semarang City*

Introduction

Environmental awareness includes a deep understanding of the relationship between humans and the environment, which guides sustainable living (sustainable for development). This awareness involves recognizing that human behavior, which tends to exploit the environment rather than preserve natural resources, can lead to an imbalance in life (Saputra, 2017). Law Number 18 of 2008 concerning Waste Management regulates the duties, authorities, and principles of waste management to improve public health, environmental quality, and to treat waste as a resource. It emphasizes responsibility, sustainability, usefulness, justice, awareness, togetherness, safety, security, and economic value. This law also affirms the obligation of every individual to manage household waste in an environmentally conscious manner (Directorate of Waste Reduction, 2023).

However, research data from the Ministry of Health recorded that only 20 percent of Indonesia's total population is concerned about environmental issues. In a broader context, only around 52 million out of 262 million people understand the importance of maintaining environmental cleanliness and its positive impact on health (CNN Indonesia, 2018). Furthermore, according to data collected by the Ministry of Environment and Forestry (MoEF) in 2022, the total waste generated in Indonesia reached

68.7 million tons per year. This waste is predominantly composed of organic food waste (41.2%), with approximately 38.2% originating from households (Directorate General of Waste Management, 2023). Although there has been progress, the current state of environmental awareness among the public still indicates that waste management in Indonesia requires a massive, systematic, and consistent movement from all elements of society to achieve the goals of Zero Waste and Zero Emissions Indonesia (Directorate General of Waste Management, 2023).

Referring to the aforementioned data, if we take a closer look at data from one of the cities in Indonesia Semarang City obtained from the Environmental Agency of Semarang, the volume of waste generated and disposed of at the Jatibarang Landfill increased from 1,200 tons to 1,251.7 tons per day, or approximately 456,873.3 tons per year. The accumulation of plastic waste, which takes a long time to decompose, has created ongoing problems. Additionally, some of the waste has clogged drainage systems, resulting in flooding in several areas of Semarang City.

The Semarang City Government has made efforts to address the waste problem, one of which is through the issuance of Mayor Regulation Number 27 of 2019 concerning the Control of Plastic Use. This regulation serves as an effort in waste management, particularly aimed at controlling the accumulation of plastic waste generated by the people of Semarang City.

The data above indicates that environmental awareness among the Indonesian public remains low, as reflected in the lack of attention to cleanliness and health. This environmental crisis is particularly evident in the apathetic behavior toward environmental cleanliness in Semarang City. Although individual awareness begins with maintaining personal and family hygiene, many people still neglect cleanliness in public spaces. For example, the act of littering can trigger similar behavior from others, creating a dirty and uncomfortable environment. Despite the presence of sanitation workers, public awareness remains a crucial factor in maintaining cleanliness. This issue affects not only physical health, leading to certain diseases, but can also cause disasters such as flooding due to careless waste disposal in rivers (Environmental Agency of Semarang City, 2020).

The waste management issue in Semarang City has become a key indicator of why the city has failed to win the Adipura Award over the past five years. During this period, Semarang was unable to maintain its achievement as an Adipura recipient, which it last received in 2017. Moreover, a study by Apriliani & Maesaroh (2021) indicates a lack of public outreach by the Semarang City Environmental Agency in implementing its programs, resulting in insufficient public awareness and limited access to information particularly regarding waste and environmental pollution. Based on this situation, Civic Education is considered an effective instrument for transforming public perspectives and behavior (Saputra, 2017).

Launched in 2019, Instagram has become the primary platform for the Semarang City Government's movement to rally public support in eliminating single-use plastics. With its striking biography, "*Semarang Wegah Nyampah*" represents the city's campaign to achieve the vision "*The Earth Needs Your Love*", encouraging the public to take part in maintaining environmental cleanliness and sustainability. The campaign's goals are clearly reflected in its slogan: "*Semarang is cleaner, brighter, and greater without plastic waste*," which is prominently featured on the account. To convey its message, the account frequently uses keywords in captions such as "*waste*," "*environment*," "*Nyampah*," "*Bala-Bala*," "*Wegah*," and "*Semarang*." By leveraging these keywords, the Instagram account effectively raises awareness about crucial issues related to cleanliness and environmental sustainability in Semarang City. The strategic use of hashtags such as #semarangwegahnyampah, #kotasemarangbebassampah, and #semarangminimsampah further reinforces the core mission of the campaign.

Several studies have also analyzed similar issues in the context of the environment and society, such as addressing the declining attention of younger generations toward the preservation of natural resources through the use of social media (Sutjipto et al., 2023). In addition, other studies have developed

community-based communication strategies through waste bank programs to increase public awareness of environmental waste issues (Svari & Utama, 2022; Ranie Aprilianti, 2017). A study by Sekarningrum et al. (2017) also developed a waste management model that is effective and tailored to community conditions. Specifically, research on environmental issues in Semarang City has been conducted, such as an analysis of the Semarang City Environmental Agency in implementing the Silampah program (Sistem Lapor Sampah) (Apriliani & Maesaroh, 2021). Similar studies have also involved public participation in community empowerment through Waste Bank programs in Semarang City (Riyadi et al., 2022). Additionally, a study by Vionna & Maryono (2019) explored the use of the internet for waste management in one of the districts in Semarang City.

Although previous studies, such as those conducted by Sutjipto et al. (2023) and Svari & Utama (2022), have also explored the use of social media and community-based communication strategies to raise public awareness of environmental and waste issues, this study specifically focuses on the role of social media in the context of Waste Bank communities in Semarang City. Unlike other studies that focus on general waste management models (Sekarningrum et al., 2017) or the analysis of the Silampah program (Apriliani & Maesaroh, 2021), this research concentrates on how social media can shape environmental awareness within Waste Bank communities in particular. Furthermore, this study differs from research involving community participation through Waste Bank empowerment programs in Semarang, such as that by Riyadi et al. (2022), by placing greater emphasis on the dimension of social media utilization as a tool to achieve those goals. The study by Vionna & Maryono (2019), which focuses on internet use for waste management in a specific district of Semarang, also shows a distinction, as the current research more specifically explores the impact of social media use by Waste Bank communities. Thus, this study contributes by detailing how the Instagram account @semarangwegahnyampah, as a communication medium, can be utilized by Waste Bank communities in Semarang City to build environmental awareness among the public.

Method

This study adopts a qualitative approach with the aim of gaining an in-depth understanding of the role of social media in shaping environmental awareness. The research employs data collection techniques such as observation, interviews, documentation, and questionnaires. To ensure data validity, the study uses data triangulation as a strategy. Data triangulation in this study involves the use of multiple data collection methods or different data sources to verify and confirm research findings. The study utilizes a data analysis technique adapted from Miles and Huberman, which includes four main stages: data organization, data reduction, data display, and conclusion drawing.

Result and Discussions

Overview of Waste Bank (Bank Sampah) in Semarang City

The Waste Bank of Semarang City is an initiative aimed at managing waste more effectively by directly involving the community. This Waste Bank functions as a collection, sorting, and processing center for recyclable waste. Residents are encouraged to deposit waste that can still be reused, and in return, they receive monetary compensation or vouchers based on the weight and type of waste submitted.

The Waste Bank of Semarang City plays a strategic, urgent, and highly relevant role based on the provisions of Law No. 18 of 2008, particularly in implementing the principles of sustainable and environmentally friendly waste management. The Waste Bank serves as a concrete mechanism to reduce waste generation, increase community participation, and maximize the economic value of recyclable waste.

Law No. 18 of 2008 serves as the main legal framework in Indonesia for comprehensive and systematic waste management, aiming to reduce waste volume at its source, promote integrated management, and preserve environmental functions. Waste Banks, as facilities for sorting and collecting recyclable waste, are a concrete implementation of the provisions outlined in this law particularly in reducing waste at the source, facilitating reuse and recycling, and directly engaging the community in active participation.

The Positive Impact of Social Media Use by Waste Bank Communities in Increasing Public Participation in Waste Management

The identification of the positive impact of social media use by waste bank communities in increasing public participation in waste management can be examined based on the theory of Ecological Citizenship. This framework emphasizes several key indicators, including the following:

a. Collectiveness

The use of social media by waste bank communities has proven to be highly effective in increasing public participation, as social media serves as a primary platform for disseminating environmental education broadly and rapidly. Through social media, communities not only share information but also success stories in waste management, thereby fostering a sense of collectiveness and shared motivation. This supports the *Collectiveness* indicator in the theory of Ecological Citizenship, which emphasizes the importance of shared values and collective responsibility in environmental practices.

The theory of Ecological Citizenship emphasizes the role of citizens in collectively taking active responsibility for protecting the environment not only as individuals but as part of a community. The *Collectiveness* indicator refers to how community members interact, support one another, and work together to achieve shared ecological goals. Through social media, waste bank communities not only reach a wider audience but also strengthen social bonds among members. This mechanism fosters a sense of ownership and collective responsibility, encouraging active public participation in waste management. Social media serves as a strategic tool for waste bank communities to enhance public engagement. This aligns with the *Collectiveness* indicator of Ecological Citizenship, which emphasizes collaboration and shared responsibility making waste management a collective effort supported by effective education and communication.

Accordingly, the results of the researcher's observations can be analyzed and presented in the table below:

Aspect	Description	Benefit	Success
Environmental Education	Social media serves as a platform for disseminating educational content on waste and environmental management	Enhancing public awareness and understanding of the significance of proper waste management	There has been a growing number of community members who comprehend and implement proper waste management practices
Sharing Success Stories	The community shares success stories and achievements in managing the waste bank	Motivating the community to actively participate through real examples of success	An increase in new community members joining and a rise in the volume of collected waste

Connecting Members & the Community	Social media serves as a means of communication and collaboration between community members and the broader public.	Strengthens social networks and facilitates the coordination of community activities	The formation of broader collaborative networks between communities and the public.
Participation Motivation	Content and interactions through social media encourage citizens to actively participate.	An increase in the quantity and quality of community participation in waste management.	Community participation in waste management activities increases significantly each month
Strengthening Social Bonds	Social media strengthens the sense of togetherness and solidarity among community members..	Building a solid and sustainable community with strong social relationships.	The community becomes more solid through regular activities and consistent member engagement.

Source : Researcher's Field Observations, 2025

Based on the results in the table above, it can be concluded that social media plays an important role as an educational tool that raises public awareness about proper waste management. By sharing success stories, the community is able to motivate more residents to join and actively participate in waste management activities. Social media also strengthens communication and collaboration among members and the wider public, resulting in a more solid and organized community network. The interactions that occur encourage increased active participation from residents each month, and with the strengthening of social bonds, the community becomes more cohesive and sustainable. The tangible outcomes of this are seen in the improved understanding of residents, the growing number of community members, the volume of managed waste, and the consistency of community activities over the long term.

Social media functions as an effective and efficient educational platform, enabling waste bank communities to widely disseminate information about waste management. Previous studies have shown that spreading information through social media can enhance public knowledge and awareness of the importance of proper waste management (Paramesti et al., 2023). In Semarang City, waste bank communities utilize this platform to share educational content such as waste management tips, the environmental impact of waste, and the importance of recycling.

Social media also serves as a motivational medium by sharing success stories and testimonials from community members that inspire others. Previous studies confirm that motivation delivered through social media has a positive impact on increasing public participation (Nur Kandias & Karniawati, 2024). The Waste Bank community in Semarang City has successfully boosted participation enthusiasm thanks to the ongoing positive narratives shared via social media, making the public feel like an integral part of real environmental change.

Social media serves as a strategic tool for education, collaboration, and motivation, which ultimately increases public participation in waste management in Semarang City. This success strengthens environmental awareness while also building strong social bonds, ensuring the sustainability of the waste bank community.

b. Situatedness

The use of social media by the waste bank community in Semarang City has proven to be highly effective in increasing public participation. This is because the waste management activities promoted through social media are carefully designed to align with the daily routines of the community. The main

focus of these activities is to educate the public on proper waste disposal and the importance of waste separation starting from the household level. This approach makes it easier for the community to understand and consistently implement proper waste management practices.

The indicator of Situatedness emphasizes the importance of aligning environmental management programs with the context and routines of the community. Effective waste management is not one that burdens the public, but rather one that becomes an integral part of their daily activities easy to understand and implement. Social media serves as the primary channel for delivering regular and interactive education on proper waste disposal and segregation. Through content that is relevant to everyday life—such as tutorial videos, infographics, and periodic reminders the community is encouraged to adopt waste management habits that are already tailored to their daily routines.

This waste management initiative is designed to align with the daily activities of the community, making it easy to understand and implement. The main focus is on educating the public about proper waste disposal and the importance of waste segregation starting at the household level, so that waste can be managed effectively. Through regular outreach and various programs, the Environmental Agency aims to foster public awareness and concern for the environment.

The use of social media brings waste management closer to the everyday lives of the community (Nasution et al., 2025). This mechanism increases the likelihood of active and sustained public participation, as waste management is no longer perceived as a burden but rather as a natural part of their daily activities

Several studies have shown that waste management programs that integrate waste practices into residents' daily routines yield more optimal results. A study by Afiah et al. (2024) emphasizes that continuous education tailored to the conditions and needs of households significantly improves compliance in waste segregation and disposal.

Another study conducted by Putri (2025) found that continuous outreach through various communication methods including social media and direct visits is highly effective in fostering awareness of proper waste management. This approach encourages residents to practice more disciplined waste segregation starting from their homes.

With an approach that is easy to understand and integrate into daily life, the community perceives waste management not as an additional burden but as a routine activity that provides direct benefits to the environment. This enhances active participation and collective awareness in maintaining environmental cleanliness and sustaining waste management programs.

c. Connectedness

The Instagram social media platform used by the Waste Bank Community in Semarang City serves as an important medium that connects waste management data with broader and more complex environmental issues. This platform supports the development of critical awareness and environmental citizenship among the public, encouraging not only practical engagement but also active contribution to collective efforts in addressing environmental problems.

The use of Instagram by the waste bank community in Semarang City has proven highly effective as a medium that connects real data on waste management with more complex and global environmental issues. This platform enables the dissemination of information through engaging visuals, thereby enhancing the public's critical awareness of environmental problems ranging from local to global levels. Through Instagram, people are not only encouraged to participate practically in waste management, but also to develop a sense of active environmental citizenship, in which they feel responsible for taking part in collective solutions.

Instagram offers features such as photos, videos, stories, and live streaming that are effective in presenting waste management data and progress in a way that is easily accessible and understandable. The waste bank community uses this platform to share management outcomes, success stories, and the challenges they face. This transforms waste management information from merely technical data into part of a broader environmental narrative that engages multiple stakeholders.

The content shared on Instagram encourages the public to reflect on the connection between their daily behaviors, waste management practices, and the broader environmental impact. This awareness represents the core of the *Connectedness* indicator within the theory of Ecological Citizenship, where individuals feel both collectively and personally connected to the environment and the issues affecting it. As a result, they are motivated not only to act as passive social media users but as active members of a community who recognize their roles and responsibilities in caring for the planet.

Through Instagram, the waste bank community in Semarang City has built a strong communication network between community members and the broader public. Interactive features such as comments, direct messages, and hashtags facilitate collaboration and the exchange of ideas. This mechanism strengthens solidarity and encourages active participation in waste management activities and collective environmental campaigns, thereby enhancing the community's sustainability and positive impact.

Conclusion

The positive impact of social media use by the waste bank community in increasing public participation in waste management can be seen through its strategic role in education, collaboration, and motivation. Social media has contributed significantly to raising community engagement in waste management efforts led by the Semarang City waste bank community. Waste management practices are designed to align with people's daily activities, making them easy to understand and implement. Educational efforts focus on proper waste disposal and segregation starting at the household level to ensure effective waste handling. This platform also fosters critical awareness and environmental citizenship among the public, encouraging not only practical involvement but also active contribution to collective efforts in addressing environmental issues.

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