

Strengthening of Community Participation in Waste Management

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ABSTRACT

The problem of managing waste in an urban area is that despite people's high social awareness, their participation in the community is not directly enhanced. Certain social conditions are required to increase community participation in waste management. This study explains the types of social conditions that may cause low community participation in waste management despite high social awareness. This study uses Giddens's structuring theory for analysis. Data collection survey techniques, such as interviews, and observation of the literature and documentation studies are employed. Results of the study indicate that the low level of community participation is due to the noninstitutionalization of the waste management structure with a new paradigm in the community. Social conditions that can strengthen community participation in waste management involve providing motivation to agents (community) such that the social practice of waste processing can be continuously conducted, thereby becoming a community habit. In conclusion, the new waste management paradigm has yet to become a structure in society, as norms for standardizing new ideas have yet to be implemented in advance.

Keywords: community participation, social awareness, structure, waste management

1. INTRODUCTION

Waste has become one of the most serious problems in urban areas in Indonesia. Thus, people's initiatives are necessary to solve this issue. People's participation in waste management is considered as one of the main factors, as households are major sources of waste. In 2016, midden in Indonesia from 261 million inhabitants reached 65 tons per year and is expected to increase along with the growth of the population. The amount of midden in urban areas in Indonesia is predicted to reach approximately 1,42 kg/individual/day, or 2.2 billion per year, from 4.3 billion people in 2025 (Central Bureau of Statistics, 2016).

As a city with 2,497,938 people and a 15,000 per km² population density, Bandung, Indonesia produces up to 1,600 tons of garbage daily. A total of 30% of this garbage is inorganic plastic waste, while 10% (100–150 ton) is plastic waste (*PD. Kebersihan*

Kota Bandung, 2018). Without people's initiatives to manage waste properly, the high waste production from the large and high-density population will have a negative impact on people's health, the environment, and social economy.

Community participation in waste management has been conducted in various ways; however, the increasing level of participation in urban areas has yet to show expected results. Sulistiyorini et al. (2015) found that though people are involved, implementation is minimal. Firmasyah (2015) also showed that the participation of people living in river areas remains low, as littering in rivers is easy and practical.

Several factors affect community participation in waste management. Yuliana and Haswindy (2017) indicated that education level, salary, land area, environmental conditions, attitudes toward the environment, and people's perspectives may influence participation. Moreover, Martinawati et al. (2016) identified that age and period of settlement are related to the level of people's involvement in waste management. Sefriani (2019) also highlighted that people's participation is affected by low levels of self-awareness.

Public involvement is an important capital for waste management programs in urban areas. The higher the awareness of household waste, the better the people's participation in waste management. Conversely, the lower the awareness of household waste, the lower the involvement waste management. However, high public awareness of waste management does not directly increase action or participation. Thus, pre-social conditioning is necessary to strengthen community involvement.

This study aims to analyze social awareness and community participation in waste management by using theory of structuration of Antony Giddens and identifying factors that strengthen community participation.

2. LITERATURE REVIEW

Several attempts have been made by the government to increase public participation in waste management. However, the increasing level of participation in urban areas has yet to show the expected results. Widyasari (2017) grouped factors into two categories, namely, internal and external. Internal factors consist of levels of understanding, the economy, and education. Meanwhile, external factors include driving actors, available means, funds, owners of an activity, and direct benefits. Although the factors influence each other, internal factors, especially, the economy, are determinants of public participation. The higher the economy, the higher the people's environmental cleaning behavior.

A few studies have developed models for increasing public participation in waste management. Lutfi and Elly (2013) showed that cooperation between community-based waste management programs and landfills is an effective model. However, the authors' model requires increasing awareness and people's active participation to manage waste in their environment. Anggraini and Hastuti (2017) conducted social empowerment activities on waste management in a high-density residential area along a river. The authors' activities are one of the attempts to increase people's participation and change

their behavior in managing waste in their settlement area. Zunariyah (2018) stated that technical and private agencies as well as local people's involvement are necessary to manage waste. Meanwhile, Dwiyanto (2011) emphasized that the problem of applying the model involves changing the paradigm, from littering to utilizing garbage.

Participation is the main capital of waste management programs for solving the problem of household waste in urban areas. According to Nugraha et al. (2018), the better the perception of the people on these programs, the higher their social participation. By contrast, the more negative the people's perception of these programs, the lower their participation. Vicente and Reis (2008) showed that households participate in recycling owing to their conviction that recycling is the personal responsibility of everyone and that citizens who are indifferent to recycling have a negative inclination to participate in recycling.

Based on previous studies, in general, the relationship between internal and external factors has not been observed to affect public participation in waste management dialectically. Therefore, this research aims to analyze people's minimal participation in waste management by using Giddens's theory of structuration to elaborate on the interplaying dialectic relationship between people (agent) and the waste management movement (structure).

3. RESEARCH METHODOLOGY

This research used a quantitative approach, specifically, survey techniques, in the Cinambo subdistrict of Bandung, Indonesia, which participated in the 3R (Reduce, Reuse, Recycle) movement. To complete the survey, information related to waste management was obtained from the stakeholders. Data collection techniques included observation, interviews as well as library research and documentation. Observations were conducted by observing social conditions, such as the cleanliness of houses and the environment, waste disposal facilities, and peoples' activities in managing waste.

For the interviews, information on people's involvement based on their awareness of waste management was collected. The research instrument used questions with the following variables: (1) volume of collective consciousness (volume), (2) intensity of collective consciousness (intensity), (3) determination of collective consciousness (determination), and (4) content of collective consciousness (content; Thompson, 1982; Turner et al., 2001; in Oetoyo et al., 2014). Information collected from 82 respondents was examined based on sex, age, marital status, role in an organization, period of settlement, level of education, occupation, and status of house ownership.

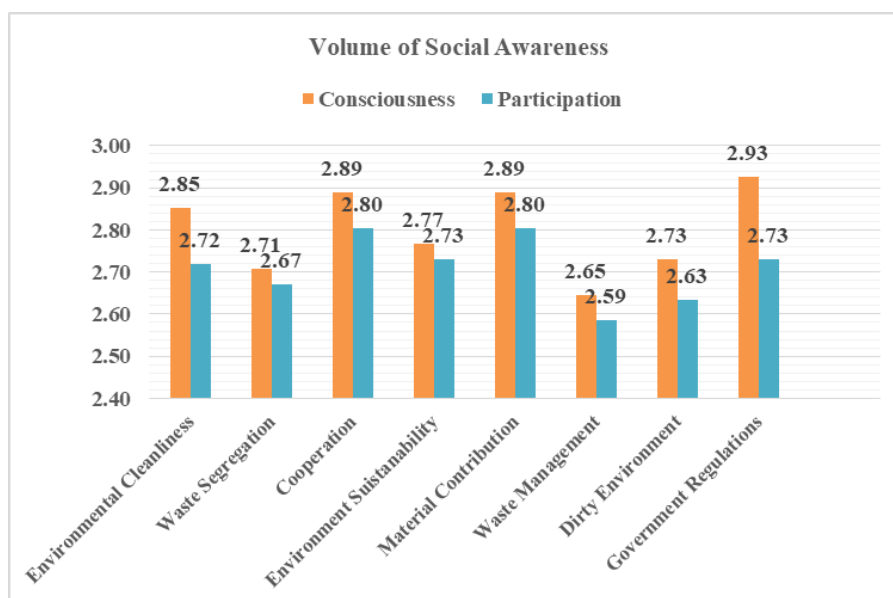
For the library research and documentation, information related to data on waste volume and management and studies on people's participation in waste management were collected. The results of the survey were processed using SPSS and analyzed using descriptive analysis.

4. RESULTS

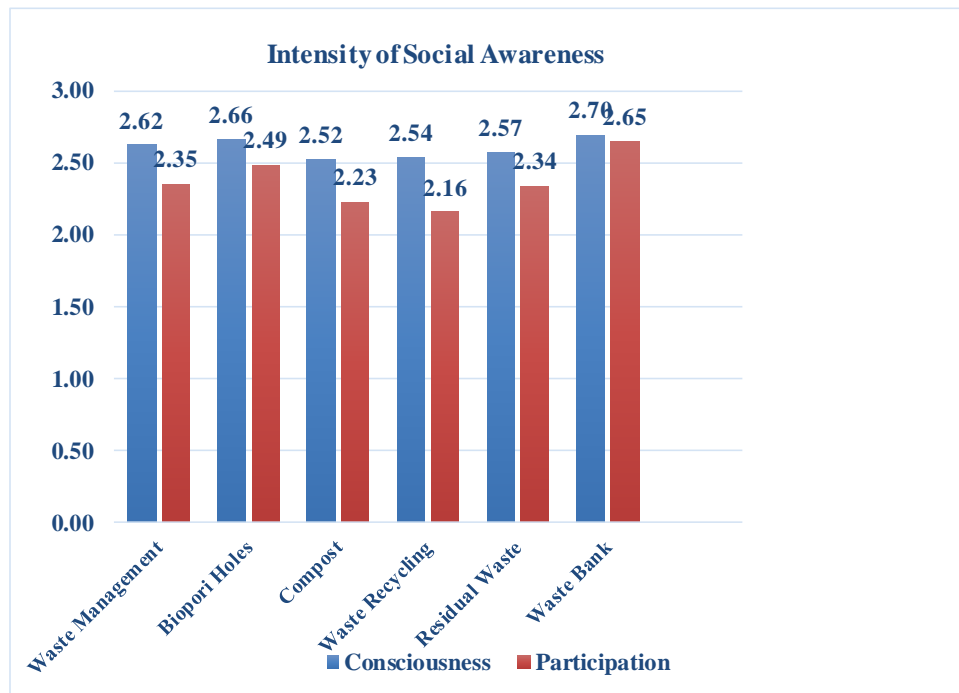
A total of 82 respondents participated in the survey, most of whom were women (82.93%) and married (95.12%). Moreover, the participants were residents who had lived in the area for over 20 years, and most graduated from senior high school (59.76%).

Concerning the level of awareness and social participation in waste management, public participation in waste management was examined based on the participants' awareness. According to Durkheim, (Turner et al., 2001; Thompson, 1982; in Boedhi Oetoyo et al., 2014), collective consciousness (social awareness) is measured by four variables, namely, volume, intensity, determination, and content. Volume shows the level of values, belief, and rules in the collective consciousness embraced by every individual in a society. Intensity determines the extent to which collective consciousness can direct people's behaviors. Determination represents the level of clarity of several components or elements of collective consciousness, and content includes contradictions between religious and secular elements in collective consciousness.

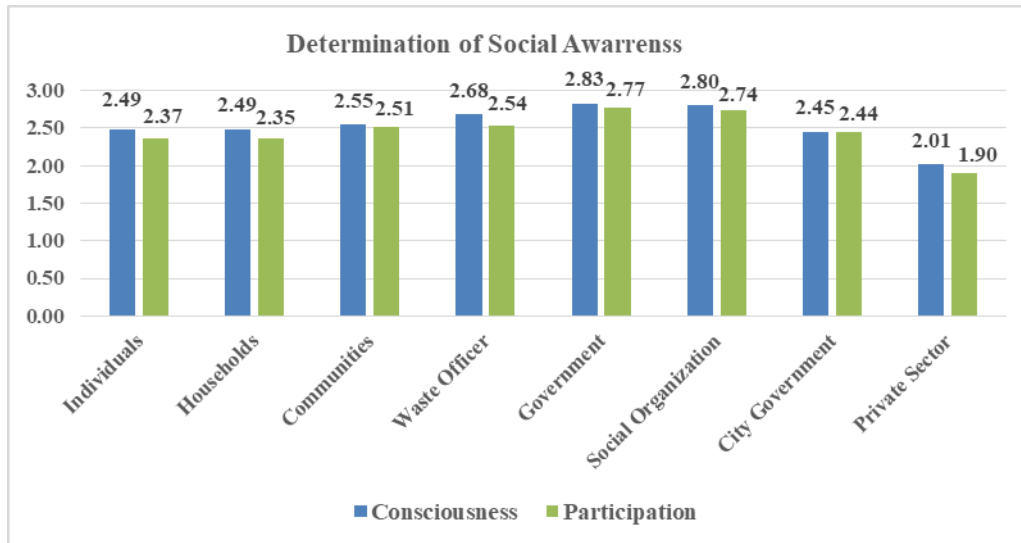
The volume of people's social awareness was shown by the participants' understanding of environmental cleanliness, waste segregation, cooperation, environment sustainability, material contribution, waste management, and dirty environments as well as compliance with government rules and suggestions on waste management. The result of this research demonstrated that the participants' level of social awareness was better than their participation. The participants' best level of awareness was indicated by their compliance with government regulations on waste management. However, their level of participation was low. The participants' lowest level awareness was demonstrated by their understanding of waste management, and their level of participation was lower than their awareness. This finding indicated that the growth of social awareness was initiated by compliance with government regulations and suggestions. However, such suggestions could not increase people's participation in waste management in their area.



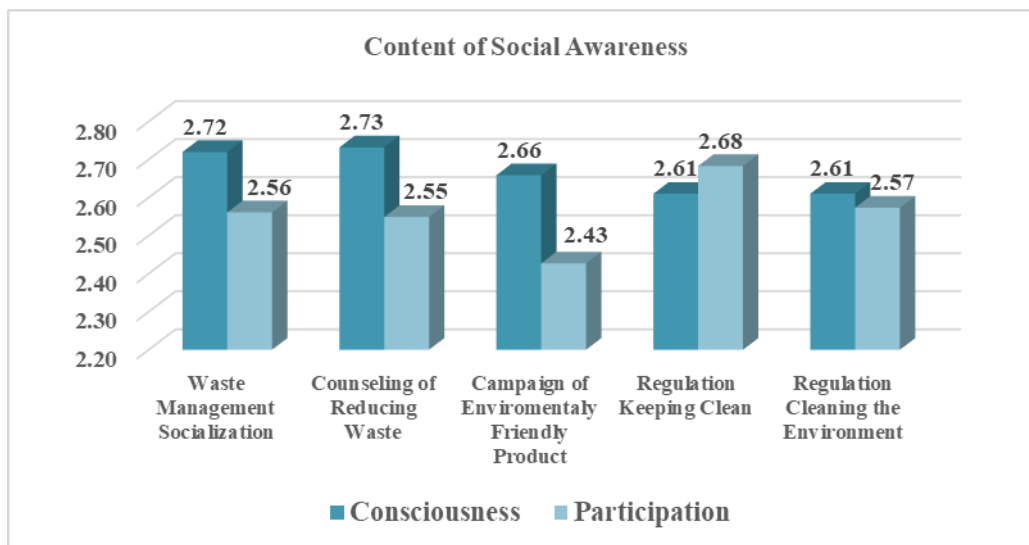
The intensity aspect of social awareness was illustrated by the extent to which social awareness can change people's behavior in processing waste. The participants' awareness and participation were indicated by their practice of making biopori holes, processing organic waste into compost, recycling garbage, disposing residual waste in landfills, creating a waste bank, and showing changes in attitudes according to their level of awareness. Awareness indicated by public participation in creating waste banks to solve the waste problem in the area was high.



The determination aspect referred to the level of clarity of several social components or aspects in waste management. The result of this research indicated that a satisfactory level of awareness was exhibited by the local government, social organizations, and waste disposal officers. However, private entities did not directly engage in waste processing activities; thus, the level of awareness and participation was low. The local government, community, and individual residents have a responsibility to manage waste; however, the local government is the main driver.



The content aspect was related to contradictions between religious and secular elements in social awareness of cleanliness. The powerful factors that drove people’s awareness of cleanliness were examined by this aspect. The result showed that the government and religious figures played an important role in raising people’s awareness. However, people’s awareness initiated by the government was low. Awareness endorsed by religious figures could improve the low consciousness in society, as maintaining cleanliness and creating clean environments were components of religious beliefs embraced by the people.



The analyses demonstrated that the local government had succeeded in increasing social awareness to manage waste. This finding was indicated by the people’s activities, such as creating waste banks as an alternative to manage waste, involving several elements in the community, including the local government, social organizations, waste officers, the community, and households. The government played a key role in increasing

awareness; however, this awareness was not accompanied by people's participation. Therefore, support from religious figures is necessary to increase participation, thereby adjusting awareness.

5. DISCUSSION

Giddens' structuration theory focuses on repeated social practices in explaining the relationship between the agent (actor) and the structure. According to Giddens, dialectical and interplaying relationships exist between the agent and structure. All social actions require a structure, and all structures require social actions. Thus, the agent and structure are linked inseparably to human practices and actions (Giddens, 1984, in Ritzer and Stepnisky, 2019).

The turning point of Giddens' analysis is human action or practice that is seen as recurrent. An actor's action is based on motivation, which is potent to do. The action is produced by the actor continuously. Through social practice, awareness and structure are created. Therefore, structure is recreated in and through a series of repeated social practices organized by social action.

This process is similar to how practical and discursive awareness is created. Discursive awareness requires the ability to draw actions into words. Meanwhile, practical awareness involves an actor's actions without having to express what he/she is doing into words. Practical awareness is important for structuration theory, because the theory concentrates on what is done by an actor rather than what is said (Giddens, 1984; Ritzer & Stepnisky, 2019).

Structures cannot appear by itself in a place and time but can emerge in a social system as a social practice that is conducted persistently. Therefore, structuration is defined by Giddens in integrative relations. The agent and structure are not in an unlimited condition. A social system is seen as a satisfactory media and action that is produced by actors and the social system repeatedly organizing the actors' habits (Giddens, 1984; Ritzer & Stepnisky, 2019).

Regarding social awareness and participation in waste management, which are analyzed with Giddens' theory, first, we need to understand the relationship between agents (households managing waste) and the structure (waste management movement). A movement could become a structure if agents (households) engage in the social practice (waste management) continuously and establish an interplaying relationship. The foundation of the social practice (waste management) carried out by the households is motivation to manage waste.

Based on this motivation, if the practice of managing waste is done continuously by the agents (households), then the waste management movement (structure) and awareness would exist. The expected awareness from these activities is a practical one in which households (agent) are focused on what they are doing (participation). Thus, the social practice conducted repeatedly would become a social system. The social system for managing waste is indicated by the existence of waste management regulations.

Therefore, the elements involved in waste management can support one another to reach a common goal.

Based on the results of this research, social awareness of waste management in the study area is not accompanied by participation. This finding shows that the social practice of waste management has yet to be institutionalized to become a routine. The form of awareness demonstrated by the agents is not practical awareness (participation). Moreover, it is caused by the agents' lack of motivation to conduct the social practice (waste management) continuously. Therefore, the waste management movement has yet to become a structure for the people.

Motivation could strengthen the agents' (households) participation such that the social practice of managing waste could be continuously conducted, thereby becoming a routine. Moreover, religious figures can play a key role in changing people's discursive awareness into practical awareness (participation) by involving the agents' (households) actions based on religious beliefs.

6. CONCLUSION

The low community participation in waste management in urban areas is due to the noninstitutionalization of the waste management structure with the new paradigm of Reduce, Reuse, and Recycle. Therefore, the social waste processing practice that has yet to be institutionalized has yet to become a community habit. Religious leaders play an important role in changing people's awareness and participation by involving agents' (community) actions in social practices based on their beliefs. The social condition that can strengthen people's participation in waste management can be implemented by providing motivation to agents (community) such that the practice of social waste processing can be continuously conducted, thereby becoming a community habit.

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