

Tiktok Talks Trash: Analyzing Public Sentiment of Waste4change's Social Entrepreneur Mission

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ABSTRACT

This study aims to uncover the public's sentiment towards the social entrepreneurship mission of Waste4Change. This study used the Natural Language Processing (NLP) approach, utilizing Word Cloud Analysis and Sentiment Score Analysis, on 615 comments about Waste4Change's mission on TikTok. The results showed that the most dominant words were waste, government, throw, trash, can, bottles, plastic, and garbage. Then, there is a negative sentiment of 96.89% towards the Waste4Change mission, due to the emergence of skepticism among TikTok users towards people's behavior and the government's seriousness in waste management. Meanwhile, positive sentiment only has a portion of 3.11% with support for the provision of facilities, systems and rewards for active participation. The implications of the research enrich the theoretical framework in the development of Social Marketing. This study is limited to the scope of the sentiment of Waste4Change's mission. Future research could reach a wider audience of social entrepreneurs.

INTRODUCTION

Social Entrepreneurship Innovation presents additional access to business reach (Vaño, 2025). Innovation has played a role as a catalyst in creating various effective and efficient business processes (Sharma et al., 2023). so that innovation and the mission of Social Entrepreneurs can answer challenges and opportunities in the future (Retnaningsih et al., 2023). In addition, the active role of the community in the social entrepreneurship mission can provide support in a stronger and measurable system (Nascimento & Salazar, 2021), this is because social entrepreneurship activities are highly dependent on the active role of the community in their core business (Iskandar et al., 2024). In addition, Social Entrepreneurship requires government support through legal clarity and ease of access to funding (Jeong et al., 2020), as this can increase the ability of Social Entrepreneurs to present the social benefits needed by the community.

The presence of Social Entrepreneurs has played a role in reducing the unemployment rate (Rey-Martí et al., 2016), because Social Entrepreneurship has a role in improving welfare through job creation (Kimuli et al., 2022). In addition, Social Entrepreneurship also focuses on solving social problems in the form of environmental conservation (Nagdev et al., 2025). Some social enterprises apply environmental conservation values in their business models, so that they can present real environmental benefits for the community (Singh et al., 2024). This initiative has triggered the birth of Waste4Change as a social enterprise oriented towards environmental conservation by developing structured waste management solutions (Waste4change, 2025). In addition, Waste4Change also presents a role as a consultant in improving waste management by including technical aspects for the community (Waste4Change, 2022). In addition, Waste4Change also facilitates the development and evaluation of waste management systems (Waste4Change, 2025). Waste management is the main trigger in creating a responsible circular economy (Abogunrin-Olafisoye et al., 2025). This concept presents an incentive pattern in the creation of recycled products for the participating community (Faibil et al., 2023). However, Waste4Change has limitations in its business development, due to problems in waste collection that are only available in big cities. In addition, this effort is very beneficial to the understanding and awareness of the community to sort the waste to be processed.

Social entrepreneurs often face challenges in aligning their social and business goals, which can complicate their direction in expanding social impact or achieving financial sustainability (Davis et al., 2021), further complicating business decision-making and policy processes (Audretsch et al., 2022). In addition, limited funds remain the biggest challenge in the development of Social Entrepreneurs (Koeswandi et al., 2021), thereby limiting entrepreneurs' ability to provide a greater social impact (Prasetyani & Abidin, 2024). Additionally, measuring social impact presents challenges because it does not involve matrix calculations, but rather a qualitative evaluation process (Agarwal et al., 2020). Then, most Social Entrepreneurs have a skills gap in human resource skills that limits their ability to run a business effectively (Benali & Villesèche, 2024). Then, public sentiment can also have an impact on the growth of Social Entrepreneurs

(Schin et al., 2023), as they are often seen as a second-class business sector compared to existing conventional businesses, so it can lead to a lack of government and community support (Leuciuc & Susu, 2020).

Public sentiment towards Social Entrepreneurs is shaped by a variety of factors, including social impact, economic sustainability, and their role in society (Terjesen et al., 2016). Public sentiment is oriented towards understanding the meaning of the presence of Social Entrepreneurs. Contribution to solving social problems has become a key factor in people's perceptions of Social Entrepreneurship (Goyal et al., 2021). In addition, the public's view of Social Entrepreneurs tends to be positive with the effectiveness of communicating missions and benefits socially (Rachmawati et al., 2021; Waldner, 2023). In addition, Social Entrepreneurs are considered to have the intention to create social impact not just profit (Bublitz et al., 2021; Lambrechts et al., 2020). However, negative views also often arise in Social Entrepreneurs with the assumption that there is an exploitation of social issues that aim to increase profits (Fuentes & Valenzuela-Garcia, 2019; S. Lee et al., 2017). In addition, the public also views the government's commitment to social issues as enforced without collaboration with other stakeholders (Loosemore et al., 2021; Masefield et al., 2021). This study aims to uncover public sentiment towards Waste4Change's mission as a social enterprise in waste management on TikTok, utilizing the Natural Language Processing (NLP) approach

THEORETICAL REVIEW

Social Marketing has a contribution to Social Entrepreneurship by undergoing its role as a strategic approach in introducing social values (Das et al., 2024). Social marketing is not only profit-oriented but emphasizes social impact on society (Srivetbodee et al., 2017). The integration of social marketing with the mission of social entrepreneurship will expand its sustainable social and financial impact (Das et al., 2024). Marketing based on a persuasive approach has been proven to bring public awareness to social issues (Pastrana & Obregón, 2023). Social marketing also aims to introduce products based on social responsibility, thereby increasing community support for business development that has a social impact on society (Trkulja et al., 2024).

The relationship between Social Marketing and Social Entrepreneurship cannot be separated from the relationship of various stakeholders (Eng et al., 2020). Because, social marketing aims to form positive sentiments in the community on the Social Entrepreneur mission (Fink et al., 2020). Good interaction with all stakeholders can encourage trust in Social Entrepreneur activities, so that it can present an active role of the community in the long term in overcoming social problems (ElNaggar & Hammad, 2024), thereby this can also encourage the formation of a good ecosystem for Social Entrepreneurs.

Social Entrepreneur has elaborated social innovations in business processes that have a social impact with sustainable waste management patterns (Fatimah et al., 2020). Social Entrepreneurship also focuses on the impact of activities on environmental health through organized waste management (Heinze et al., 2016). A Social Entrepreneurship System based on waste

management cannot run separately between management and the community, because it requires the active role of the community in the process of selecting waste as recycled material (Gibovic & Bikfalvi, 2025). This system not only brings financial benefits to managers but also provides social value for the community in preserving the environment. In addition, the existence of Social Entrepreneurship is also highly dependent on its ability to answer problems (Burhanuddin, 2024). so that it can generate positive sentiment and optimism in more organized waste management (Etim, 2024).

The implementation of social values in Social Entrepreneurship has affected people's sentiment towards environmental conservation (Yasir et al., 2023). The success of waste management increases community support for the Social Entrepreneur's mission (Etim, 2024), which in turn correlates with the acceptance of Social Entrepreneur products. However, sentiment interaction is dynamic, so when the initiation of Social Entrepreneurs in managing waste does not go well, it will give rise to skepticism in the community (Liu et al., 2018). It affects the negative sentiment of the community regarding the Social Entrepreneur's mission to form organized and responsible waste management.

Community involvement in environmental conservation through waste management has a gap in terms of understanding and implementation (Aristizábal Cuellar et al., 2025). Some people realize that the environment must be protected. However, it cannot manage waste. In fact, there are community groups that understand and effectively manage waste. However, he lacks the motivation to apply his knowledge (K. et al., 2022). In addition, the attitude of people who tend to be lazy in disposing of waste also makes the Social Entrepreneur's mission even more challenging to achieve (Nguyen et al., 2023), because the waste selection process is the initial stage in waste processing. Then, the remote access to waste management sites also makes people reluctant to classify waste that can be collected (Han et al., 2019). In addition, poor government governance in waste management also strengthens the public's skeptical attitude towards the Social Entrepreneur's mission (Chin & Mees, 2021), thus having an impact on the active involvement of the community, because a poor management system cannot present an integral process between various stakeholders, which results in a lack of community ownership in environmental conservation.

The actualization of weak waste management policies can hinder the community's participation in the Social Entrepreneur's mission movement (Chin & Mees, 2021), as this is due to the lack of government efforts to ensure cohesive management practices. Furthermore, the improper allocation of funding sources significantly complicates the development of waste management (de Moraes e Soares, 2024). However, the government often overlooks the urgency of waste management due to a lack of investment in infrastructure and supporting technology (Salim et al., 2023). The presence of Waste4Change as a Social Entrepreneur, whose mission to manage waste becomes increasingly challenging due to the community's attitude towards waste management, thus influencing public sentiment on Waste4Change's mission as a Social Entrepreneur.

which express a series of words that are organized in the waste management process. In addition, there are words that are affiliated as geographical elements in the form of "Indonesia", "city", "area", "location", and "home" which indicates that the context of the comment is in urban areas in Indonesia. Then, the words "recycled", "organic", "reduce", "collected", "sorting", "shipping", and "facilities" reveal that TikTok users' conversations are dotted with operational and educational aspects through the Waste4Change mission. This shows that TikTok users appreciate Waste4Change's mission in the form of recycling, waste reduction, and collection infrastructure. Then, the next analysis is in the form of sentiment score analysis as follows.

Table 1. Sentiment Score Analysis

Indicator	Sentiment		Totals
	Negative	Positive	
Absolute	280	9	289
Table-relative	96.89%	3.11%	100.00%

Source: ATLAS ti. data process

The results of the analysis showed the dominance of negative sentiment in TikTok comments related to the Waste4Change mission with a pprsi of 96.89%. Meanwhile, the portion of positive sentiment only reached 3.11%. This shows that there are complaints about waste management programs from the aspects of planning, implementation to regulation. Although, there are still some TikTok users who appreciate Waste4Change's mission as an independent entity oriented towards environmental preservation through structured and organized waste management. The results of this analysis show that there is a large gap between negative and positive sentiments in the people in Indonesia

DISCUSSION

Word Cloud analysis shows a dynamic pattern in public sentiment related to Waste4Change's mission. Negative sentiment arises with the rationality that there are complaints from TikTok users about people's behavior that they are reluctant to dispose of garbage in its place (Adekola et al., 2021; Anokye et al., 2024). In fact, TikTok users also consider people's laziness, unclear regulations, and unsupportive infrastructure as the basis for being skeptical of the Waste4Change mission (Mukwevho et al., 2024; Sewak et al., 2021; Zhang et al., 2019). This means that TikTok users feel that the community and the government are unreliable in supporting Waste4Change's mission in preserving the environment through waste management. Meanwhile, positive sentiments are formed through words that show support for the mission of Waste4Change by providing facilities, systems and rewards to the community who have sent selected waste to Waste4Change (M. Edullantes et al., 2024; van der Werf et al., 2021). Word cloud analysis emphasizes that Waste4Change's mission has challenges in dealing with community behavior and regulations that have not yet supported it (Sewak et al., 2021; Voronkova et al., 2025). This phenomenon can be addressed by Waste4Change as a trigger in building public understanding of the importance of

waste management, so as to increase confidence that Waste4Change's mission is a common goal

The predominant negative sentiment procession arises due to the skepticism of the public in the correct waste management (Chen et al., 2025), An attitude of not caring about the environment by littering carelessly is the main trigger for the skepticism of TikTok users (Basch et al., 2022; Hautea et al., 2021), In addition, exposure to the return of garbage piles after being distributed in various regions makes users even more unsure of Waste4Change's good mission as a Social Entrepreneur (Cheng & Li, 2024), because changes in people's behavior are very difficult to change (Manika et al., 2022). Then, various failures of waste management projects that are not running well are also considered (Wan et al., 2015). In fact, less supportive regulations raise questions about the government's seriousness in handling waste (Olukanni & Nwafor, 2019; Spoann et al., 2019; Volsuuri et al., 2022), so that skepticism is getting stronger in the eyes of TikTok users.

CONCLUSIONS AND RECOMMENDATIONS

This study aims to reveal public sentiments of Waste4Change's mission as a Social Entrepreneur in Waste Management on TikTok social media using an NLP approach. The study involved 615 comments from TikTok users. This study employed word cloud analysis to identify the words that appeared most frequently in TikTok conversations, and then conducted sentiment score analysis with both absolute and relative value measurements. The results of the word cloud analysis show that 'waste' is the central word, with the focus of the discussion being on waste management. Then, there are supporting words that are quite dominant, such as "government", "throw", "trash", "can", "bottles", "plastic", and "garbage". The results of the sentiment score analysis also indicate that there are two main categories: negative and positive sentiment. At the absolute level, there are 280 negative sentiments and nine positive sentiments, totaling 289 sentiments. Relative to 96.89%, the dominance of negative sentiment. Meanwhile, the positive sentiment only reached 3.11%.

This study has implications for enriching the theoretical framework in social marketing and environmental behavior. In particular, the dominance of negative sentiment supports the Theory of Planned Behaviour, which emphasizes that individual attitudes, subjective norms, and perceived control of behavior influence the intentions of sustained behavior. In addition, the apathy of the public and the sentiment of government regulations as ineffective hindered the adoption of the solutions offered by Waste4Change. In fact, this is also in line with the concept of green skepticism, which is the skeptical view of consumers towards environmental claims due to the incompatibility between private initiatives and government support. This study is limited to the scope of public sentiment of Waste4Change's mission. It is hoped that future research can reach more social entrepreneurship companies and various social media, thereby making the research findings more comprehensive.

FURTHER STUDY

Future research could expand the analysis by incorporating additional social media platforms or applying advanced sentiment analysis models to capture deeper public perceptions of Waste4Change's social entrepreneurship initiatives.

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