

Research Article



## ANALYSIS OF THE EFFECTIVENESS OF USING VIDEOTRON AS AN EDUCATIONAL MEDIUM FOR WASTE REDUCTION AND IMPROVING PUBLIC HEALTH IN CENTRAL BANJARMASIN

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### ABSTRACT

#### Background:

The waste problem in Banjarmasin City, particularly in Central Banjarmasin, remains a serious challenge that impacts environmental quality and public health. Low public awareness and knowledge regarding waste management contribute to environmental pollution and increase the risk of environmental-based diseases. One effort undertaken by the local government is the use of digital media in public spaces, such as Videotron, as a means of educating people about waste reduction and promoting environmental health. This study aims to analyze the effectiveness of using Videotron's as an educational medium in increasing public knowledge and its contribution to environmental health awareness in Central Banjarmasin.

**Methods:** This study used a qualitative approach with a descriptive-analytical design. Data were collected through in-depth interviews, field observations, and documentation of residents exposed to Videotron displays, as well as government officials and media managers. Data analysis was carried out through data reduction, data presentation, and thematic conclusion drawing.

**Results:** The study found that Videotron had visual Appeal and Attention-Grabbing Ability, could Increasing Knowledge about Waste Management, and it could contribute to Environmental Health Awareness.

**Conclusion:** Videotron is useful as an educational medium for waste reduction and improving public health in Central Banjarmasin.

**Keywords:** Videotron, environmental education, waste reduction, health promotion, Central Banjarmasin

## INTRODUCTION

The waste problem is a crucial issue faced by many cities in Indonesia, including Banjarmasin City, known as the City of a Thousand Rivers . This problem not only impacts the environmental aspect, but also has a significant impact on public health (1) . The accumulation of waste that is not managed effectively has caused environmental pollution, disturbed the aesthetics of residential areas, and has the potential to become a source of various infectious diseases because it becomes a breeding ground for disease vectors such as mosquitoes and flies (2) . This is reinforced by the finding that indiscriminate waste disposal in residential areas and riverbanks in Banjarmasin increases the risk of water and environmental pollution which ultimately impacts the quality of life of the community (3).

The volume of waste entering the Basirih Final Processing Site (TPA) in Banjarmasin City currently (July 2019) reaches 378.44 tons per day, with a population of 692,793 people. If it is assumed that the amount of waste measured currently is the same as in 2019, then the waste produced reaches 138,130 tons per year (2) . The Basirih TPA has an area of 20 hectares, and has been used about 16 hectares (80 percent), so the remaining 20 percent. With a waste volume reaching 138,130 tons per year, the capacity of the Basirih TPA will continue to decline and will only be sufficient for the next few years. (4).

Research on the representation of waste issues in local media in Banjarmasin reveals the role of media in reflecting and shaping public perceptions of waste management, which in turn significantly influences public participation in waste cleanup and management activities (5). This

study indicates that reporting and representation of environmental issues can be an important factor in increasing public participation in waste management efforts (6) . More broadly, research on visual communication campaigns to raise awareness about waste management shows that a visual communication-based approach can significantly improve environmental literacy and waste management practices in the community (7) .

The problem of urban waste is not only an environmental issue, but also a serious public health problem. The accumulation of poorly managed waste can become a source of water, land, and air pollution, as well as a breeding ground for various disease vectors such as mosquitoes, flies, and rats. This condition contributes to the increased risk of environmental diseases such as diarrhea and dengue fever (DHF) (2).

Research on the relationship between environmental knowledge and waste management behavior in urban areas in Indonesia reveals that environmental knowledge is an important predictor of improving waste management practices based on the principles of Reduce, Reuse, Recycle (3R). The results of this study confirm that the higher the knowledge about waste management, the more likely the community is to actively participate in effective waste management strategies, which impacts environmental quality and public health (7) . Several educational intervention studies also show a positive relationship between waste management education and environmental health (5).

Although both local and national literature has extensively addressed the issue of waste from various perspectives, including community behavior, media representation, and educational interventions,

relatively little research has evaluated the role of digital public space media, such as Videotron, as educational tools for waste reduction and improving public health. Videotron, as large-scale visual media, have the advantage of directly capturing the attention of a wide audience, with the ability to present dynamic, engaging, and easily understood messages.

This study aims to analyze the effectiveness of the Videotron " sasangga batang banyu" as an educational medium for waste reduction while also proving its role in improving public health in the Central Banjarmasin area.

## **MATERIAL AND METHODS**

This study used a qualitative approach with a descriptive-analytical design to understand the effectiveness of using Videotron as an educational medium for waste reduction and its contribution to improving public health in Central Banjarmasin. This approach focused on how the public interprets the displayed messages, increasing knowledge about waste management, and its impact on environmental health awareness and behavior. The study was conducted purposively in Central Banjarmasin District, a strategic area with high mobility and intensive Videotron exposure.

The research subjects were selected using a purposive sampling technique, including members of the public who had watched educational broadcasts, representatives of relevant government agencies, and Videotron operational managers. Data collection was conducted through semi-structured interviews, observations of broadcasts and public responses, and documentation of broadcast materials and policy documents related to

waste management and environmental health promotion.

## **RESULTS**

Based on the results of in-depth interviews, field observations, and documentation conducted in the Central Banjarmasin area, several main themes were found that illustrate the effectiveness of using Videotron as educational media for reducing waste and improving environmental health. In research (8) it is explained that "the use of Videotron is part of optimizing information technology for the dissemination of public information quickly, accurately, and evenly. He stated that choosing a strategic location is one of the main considerations so that information can be conveyed to all residents".

### **Visual Appeal and Attention-Grabbing Ability**

The majority of informants stated that Videotron have a stronger visual appeal than conventional media such as banners or billboards. The educational video display, along with its concise and to-the-point message, makes it easier for people to pay attention to the message. Several informants stated that they tend to read or pay attention to Videotron displays when stopped at traffic lights or in public areas. This indicates that Videotron are effective in terms of message exposure. However, some informants also stated that the display duration is sometimes too short, so not all messages are optimally absorbed

### **Increasing Knowledge about Waste Management**

The research results showed an increase in basic public knowledge after

being exposed to educational broadcasts via Videotron. The public became more aware of the importance of separating organic and inorganic waste as a first step in effective and environmentally friendly waste management. Furthermore, the Videotron broadcasts also strengthened public awareness of the importance of reducing the use of single-use plastics as part of preventative efforts to reduce waste volume and maintain environmental quality. Overall, this increase in knowledge demonstrates that Videotron media can play an effective educational role in building environmental awareness while supporting efforts to improve public health.

Most informants stated that before watching the Videotron, they didn't fully understand the impact of waste on health, such as the potential for diarrhea, dengue fever, and skin disorders caused by an unhygienic environment. After being exposed to the message, they gained a better understanding of the relationship between environmental cleanliness and family health.

However, increased knowledge has not been fully followed by consistent changes in behavior.

### **Contribution to Environmental Health Awareness**

Research findings show that Videotron function not only as information media but also as reminders (reminder effect). Repeated broadcasts increase public exposure to messages about cleanliness and its impact on health.

Several informants stated that messages featuring visuals of polluted rivers and their impact on children's health were quite emotionally arousing. This suggests

that visual-based messages have greater persuasive power than static text.



Figure 1. Videotron

### **DISCUSSION**

Previous research results state that videotron is an effective medium in conveying information and is a medium that is preferred by the public, namely in the form of short videos displayed on large screens (9). In addition, it also states that "Although the current era of globalization encourages the massive use of digital media, this digital activity does not reach all groups. As we all know, social media and the internet are more dominantly used by generations of productive age, such as Gen Z and millennials. So campaigns through billboards in crowded areas will tend to be more easily remembered because of their exposure with a repetitive pattern and will have little effect on voter perceptions." (10).

The results of the implementation of the digital education project "Sasangga Batang Banyu" show that the use of Videotron as a public information medium is highly effective in increasing knowledge while encouraging improvements in public health in Banjarmasin City. The display of videos at seven strategic points in the city's Videotron means that environmental education messages are no longer limited to classrooms or formal socialization forums,

but are present directly in public spaces accessed by thousands of people every day. The advantages of Videotron lie in its strong visual appeal, large screen size, and its ability to convey messages simultaneously and repeatedly, thereby strengthening public memory and understanding.

Through Videotron media, messages about the importance of waste sorting, reducing single-use plastics, and managing organic waste into eco-enzymes and compost are conveyed more persuasively and easily understood. Visualizations of the condition of the Basirih River, the Basirih Landfill, and the future of a polluted environment provide an emotional impact that cannot be achieved through conventional media such as posters or flyers. This emotional impact has proven to be able to build collective awareness that the waste problem is not only a cleanliness issue, but also a public health issue.

Improving public health is one of the important implications of the effectiveness of Videotron as an educational medium. With increased understanding of the impact of waste on health—such as the risk of diarrhea, dengue fever, skin infections, and respiratory problems caused by dirty environments—the community began to show real behavioral changes. After the Videotron screening, there was an increase in the amount of sorted waste entering the healthy waste bank and a decrease in the practice of littering. This condition directly contributes to the creation of a cleaner environment, reduces the potential for the development of disease vectors, and improves the quality of life of the people of Central Banjarmasin.

The effectiveness of Videotron is also evident in the positive response from various parties. The Banjarmasin City Communications, Informatics, and Statistics

Office assessed that educational content based on cinematic visuals was more easily captured by the public than traditional forms of outreach. The Banjarmasin City Environmental Agency also reported that the public showed greater enthusiasm during outreach sessions when the same videos were re-broadcast, as the messages they had seen in public spaces felt more familiar and relevant to the city's conditions.

Conceptually, Videotron function as a digital-based mass communication medium capable of bridging the environmental literacy gap in urban communities. With their broad reach and repeated exposure, Videotron strengthen the internalization of environmental health messages. This medium not only conveys information but also shapes risk perceptions and encourages changes in attitudes and actions. In the context of Banjarmasin City, known as the "City of a Thousand Rivers," the use of Videotron is a strategic public communication strategy to instill awareness that maintaining river cleanliness means maintaining the health of families and future generations.

This study also found that educational media alone is not sufficient to produce sustainable behavioral change. This aligns with behavioral change theory, which states that knowledge is the initial factor but needs to be supported by external factors such as facilities, policies, and social supervision.

Thus, the results of this report confirm that Videotron are not merely visual promotional media, but also effective public health education instruments. The integration of local narratives, cinematic visuals, and dissemination through city Videotron has been proven to increase knowledge, build ecological awareness, and encourage clean and healthy living practices in the

Banjarmasin community. This approach demonstrates that transformation of environmental health behavior can begin with creative, consistent, and digitally-based public communication.

In the health context, research results show that the public is beginning to understand the link between waste and disease risk. This is important because increased environmental health awareness can lay the foundation for preventative behavior. Therefore, Videotron have the potential to become part of an environmentally-based health promotion strategy in urban areas.

Some of the views obtained from this research after conducting interviews with the community and informants are (1) Integration with offline programs, such as direct socialization or collaboration with RT/RW and communities. (2) Use of simpler language and visuals that are more contextual to local conditions in Banjarmasin, including the use of language that is easy for the community to understand.

Overall, the research results indicate that Videotron are highly effective as a public education medium in increasing public knowledge and awareness about waste reduction and environmental health in Central Banjarmasin. This medium excels in terms of visual appeal and broad reach in public spaces. However, to achieve a more significant and sustainable impact on behavior change, Videotron use needs to be integrated with participatory communication strategies, the provision of supporting facilities, and consistent environmental policies.

This research provides an empirical contribution that digital media in public spaces such as Videotron can be a strategic environmental health promotion instrument

in urban areas, especially in Central Banjarmasin, if designed and implemented in an integrated manner.

## CONCLUSION

The use of Videotron as a public information medium through the digital educational project "Sasangga Batang Banyu" has proven effective in increasing knowledge, awareness, and practices of waste management in Banjarmasin City, particularly in Central Banjarmasin. The advantages of Videotron as a large-scale digital visual medium, with wide reach and repeated exposure, are able to attract significant public attention and convey environmental messages in a persuasive and easy-to-understand manner.

The display of educational videos at strategic locations in the city not only broadens the reach of information but also strengthens the internalization of messages about the importance of waste sorting, reducing single-use plastics, and sustainably managing organic and inorganic waste. This increased knowledge has had a direct impact on changing community attitudes and behavior, demonstrated by increased participation in healthy waste banks, waste sorting practices at home and school, and a reduction in mixed waste entering the landfill.

Moreover, the effectiveness of Videotron as an educational medium also contributes to improving public environmental health. With increasing awareness of the link between waste and the risk of diseases—such as diarrhea, dengue fever, and respiratory disorders—people are beginning to develop preventative behaviors that support a cleaner and healthier environment. This demonstrates that digital media-based public communication can be a

vital part of public health promotion strategies at the regional level.

Overall, this work demonstrates that Videotron are not merely visual information media, but strategic, innovative, and impactful health education and promotion tools. The integration of a cinematic approach, local cultural values, and local government support makes Videotron an effective tool for fostering collective behavioral transformation toward a cleaner, healthier, and more sustainable Banjarmasin.

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