

## **CAMPAIGN DESIGN FOR PLASTIC WASTE TREATMENT WORKSHOP IN BANDUNG CITY**

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### **Abstract**

This research is entitled "Campaign Design for a Plastic Waste Processing Workshop in Bandung City". This research focuses on Olah Plastic, a business entity in Bandung City, which processes and recycles plastic waste. The study focuses on designing a digital campaign to enhance students' understanding and awareness of plastic waste processing. This design aims to produce design media in the form of a digital campaign so that it can attract students to be more aware of plastic waste processing. The design employs a design thinking method, including Empathize, Define, Ideate, Prototype, and Test, with a design approach. The data collection process involved literature studies, observations, and interviews. The research aimed to design a digital poster for social media accessibility for students. The poster that has been designed is also made in the form of a design mockup so that it can illustrate how the final product will look, giving the client a clear picture of the design.

**Keywords:** Campaign; Workshops; Plastic Processing; Plastic Waste

### **Introduction**

According to Brotosusilo & Handayani (2020), Millions of tons of waste are generated in Indonesia every day, including organic and inorganic waste, making Indonesia one of the countries that produces the most waste in the world (Annindia et al., 2023). Meanwhile, according to Jambeck (2015) With a total of 3.2 million tons of plastic waste per year, Indonesia is the second most polluted country in the world, after China (Amalia, N., & Deliana, 2021). The increase in the amount of waste occurred in the city of Bandung, West Java. Bandung is an area that has the advantage of high tourist attractions, making it a tourist destination. However, it not only has a positive effect but also a negative effect, namely the increase in the amount of plastic use, causing a lot of plastic waste due to the activities of tourists who visit (Buerero, 2024). 1,594.18 tons per day of waste produced in Bandung according to the Central Statistics Agency (BPS) in 2022, plastic waste is in second place, reaching 266.23 tons per day, or by 16.70% after food waste of 44.52% and this amount increased from the previous year (Wamad, 2023).

Several regulations have also been enacted for waste to be able to realize sustainable waste management, such as Government Regulations (PP), Laws (UU), Ministerial Regulations (Permen), and Regional Regulations (Perda), supporting responsible waste management (Defitri, 2023). From the impact caused, several ways are carried out in an effort to reduce plastic waste, namely the 3R method involving *Reuse* (reuse) products made of plastic, *Reduce* (reduce) the use of plastic goods, especially disposable products, and *Recycle* (Recycle) goods made of plastic (Wibowo, Y. G., & Izzuddin, 2021). Currently, not a few MSMEs have also engaged in *recycling*, especially *recycling* plastic waste. One of them is Olah Plastic which is located in the city of Bandung. However, it is still necessary to increase public knowledge about plastic waste processing and build public *awareness* so that it is expected to provide benefits for the environment and help reduce the negative impact of plastic waste (Singh & Sharma, 2016).

Some of the previous studies that have discussed the plastic waste campaign are research conducted by Gabriel Chintya Anggraeni with the title "The Effect of Environmental Campaigns on Awareness of Reducing Plastic Use in *Followers* Instagram" uses an explanatory quantitative method and the result is that there is awareness to reduce the use of plastic for Instagram followers @KFCIndonesia are affected by the campaign (Anggraeni, Herutomo, & Nuryanti, 2021). Then the research conducted by Krisyanti, Ilona VOS, Anjang Priliantini with the title "The Influence of #PantangPlastik Campaign on Eco-Friendly Attitudes (Survey on Instagram Followers @GreenpeaceID)" uses a quantitative method and the results are showing influential campaigns in supporting understanding, affection, and building an environmentally friendly attitude follower Instagram @Greenpeaceid, deep#PantangPlastik campaign can slowly build an eco-friendly attitude towards @Greenpeaceid Instagram followers (Krisyanti & Priliantini, 2020). Furthermore, the previous research conducted by Wayan Weda Asmara Dewi, Wifka Rahma Syauki with the title "Campaign Message *Non-Government Organization* to the Plastic Waste Problem" using a quantitative descriptive method and the result is that the campaign message that has been designed by Bye Bye Plastic Bags (BBPB) was positively welcomed with *Audience* (Dewi & Syauki, 2022).

## Research Methods

The method in this study uses a *Design Thinking* approach consisting of *Empathize*, *Define*, *Ideate*, *Prototype*, and *Test*.



Figure 1. Design Thinking Source: medium.com

This study applies a design approach by considering important factors related to the research, these factors are visual aspects based on the resulting design design, the role of the creator or producer of the design work, and its influence on the user of the design

design. This research focuses on one of the MSMEs that focuses on *recycling* plastic waste, namely Olah Plastic. Olah Plastic is one of the waste recycling MSMEs in the city of Bandung with a vision and mission, which is to reduce plastic waste by being used as *lifestyle* and furniture products. This research refers to the design of a digital campaign for plastic waste treatment. The method of data collection in this study is using:

#### Literature Studies

Literature studies collect sources or data about the subject of research, where the next stage uses data analyzed through descriptive analysis that not only outlines the facts but also provides explanations and understandings (Habsyi, 2017).

#### Observation

Observation is related to the process of observing and acquiring images or images, in observing images are carefully viewed and stimulated to the brain to process them into perception. From this perception it is arranged into information that can be understood. Images are a form that can be read in this context, because there are visual elements that are interrelated and build an easy-to-understand message (Soewardikoen & Tohir, 2021). This research was carried out through direct observation at Olah Plastic and documentation.

#### Plastic

This study uses the 360 mapping analysis method, in addition to conducting qualitative analysis of literature studies, observations, and interviews. The results of the observation and interview stages are then summarized the results of the collection of observation and interview data so that the right waste treatment strategy can be determined in order to increase knowledge and *Awareness* community regarding plastic waste processing. This study uses a SWOT analysis, that is, this analysis is maximized to *Strength* (strength) and *Opportunities* (opportunities), but can also be minimized with *Weaknesses* (weakness) and *Threats* (threats) to determine the company's strategy

## Results and Discussion

### *Empathize*

Olah Plastic is one of the MSMEs that focuses on *recycling* plastic waste based in the city of Bandung, West Java. It has an operational office located in JL. Greetings No. 10, Cihapit, Bandung Wetan District, Bandung City to facilitate *meetings* and meetings with clients. And has a production factory in an industrial environment, namely in Gede Bage so that its operations do not interfere with public settlements. Olah Plastic was established in 2020, initially this business was engaged in the manufacture of *plastic packaging* for finished products. However, over time, Olah Plastic itself realized that the ongoing business made a lot of new plastic waste which was certainly not good for the environment. So finally they decided to change their business, namely in the field of recycling plastic waste which has been running until now. The products produced are marketed through the olahplastic.com website and *other marketplaces*. During its existence, Olah Plastic was inseparable from problems, as is currently happening when Olah Plastic faces problems in terms of operations, marketing, and *finance*.

The observation was carried out on March 3, 2024 at 14.00 WIB and the second observation was made on March 5, 2024 at 12.00 WIB located on Jl. Salam no.10, Cihapit, Bandung City

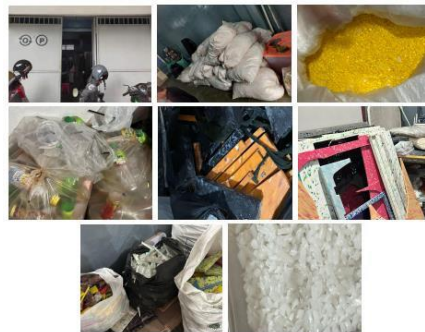


Figure 2. Source Observation Results: (Personal Data)

Based on the image above regarding the results of the observation of Olah Plastic, starting from the direct observation, at the Olah Plastic office there is an identity board with the word "OP" which indicates that the building is a Olah Plastic office, then there is a pile of raw materials for plastic waste to be processed, a pile of remaining plastic waste products and, a pile of waste materials that will be used such as drink bottles and there are raw materials for processing that have been chopped.

Interviews were conducted with the CEO of Olah Plastic (Rizal) and the team (Regina and Aldi) which were conducted at the Olah Plastic operational office, the results of the interview can be concluded that Olah Plastic has problems in waste collection which also has an impact on the quality of the Olah Plastic board, and the existence of a waste mafia game which is stockpiled at the highest price resulting in a slow production process due to continuous negotiations, in addition to that it is also about the uneven thickness of the board and the texture produced because the market in Indonesia wants a smooth board result, then there are brands that do not want to include the Olah Plastik logo as a collaboration medium.

**Define**

Mapping Data 360

360 data mapping is used to find out the data contained in Olah Plastic, so that by using 360 mapping, the data collected can be more structured.

SWOT Analysis



Figure 3. SWOT Analysis Source: (Personal Data)

From this analysis, it can be seen that Olah Plastic has strengths in superior products, namely its board products which are considered better than competitors because research has been carried out on thickness, durability, and the appropriate finishing process. However, on the other hand, Olah Plastic also has weaknesses, namely other competitors have advantages in machinery and financing so that the products produced are more diverse. Due to the potential for increasing market demand for high recycling, Olah Plastic is expected to be able to spread more mass awareness about their products & values, followed by increasing research and innovation carried out as Olah Plastic's flagship point compared to competitors.

In addition, the threat that arises is the rise of the waste mafia which makes the price of plastic waste expensive, as a result of which it affects processed plastic waste products to become expensive due to the scarcity of raw materials. Changes in consumer behavior can also potentially reduce interest in recycled products due to high prices, especially for domestic consumers. So that if combined, from the strength that Olah Plastic has, namely Olah Plastic, already has superior products with research carried out, the opportunity that supports is the existence of government regulations that are in line with the prediction of increasing market demand in 2024 - 2030.

Then with the strength of Olah Plastic, which has superior products, it can affect the threat of the Indonesian market which has high standardization, and the last is the weakness that Olah Plastic has, namely the existence of waste left over from production will affect the threat of limited raw materials.

#### 1. *Problem Brainstorming*

The problems that occurred were in the operational, *finance*, and *marketing* departments. Where in the operational and *finance* sections cannot be solved with the scientific field of design. However, this study also examines more deeply the operational problems regarding the existence of waste left over from the production of Plastic Processing that has not been reprocessed so that there is a buildup. From the marketing problem, this study also discusses the lack of education in sorting plastic waste based on plastic materials, this is also related to the level of *awareness* and lack of student education, one of which is due to the lack of information and the difficulty of accessing information. This is an indication of the lack of education and lack of information, resulting in low *student awareness* of plastic waste management and information about sorting

#### ***Ideate***

Based on the grouping of problems, the *ideate* stage will be problem-solving, at this stage the solutions and visual concepts that will be used will be discussed.

#### ***Moodboard***



Figure 4. Moodboard Source: (Personal Data)

The moodboard used in this study is a reference in making digital campaigns for workshops in the form of digital posters. This moodboard is used as a reference in making visual designs

### Color



Figure 5. Source Color: (Personal Data)

The colors applied to this design are colors with retro nuances, so that they give a classic atmosphere and a warm vintage impression. These colors are used to create works that are not only aesthetically pleasing and appealing but also bring strong emotions and nostalgia.

### Typography



Figure 6. Source Typography: (Personal Data)

The typography used uses the Kelin Eator and Poppins fonts so that it looks vintage and creates a good aesthetic impression.

### Layout Sketch

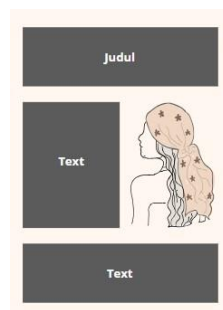


Figure 7. Source Layout: (Personal Data)

The layout sketch in the image above is used as an illustration in the initial process of making digital campaign posters, the layout functions as a reference in making posters

such as the placement of the desired text and visual assets, the *layout* made seems *simple* so that it is easier to understand and see the message you want to convey.

### Illustration Sketch



Figure 8. Illustration Sketch Source: (Personal Data)

The illustration sketch in the image above is used as an illustration in the initial process of making a digital campaign poster, the illustration will later become the object of the poster so that it can attract more attention to students.

### Prototype

After the idea is carried out, the next stage is the process of developing the idea into a visual form which is then realized after determining the final design of the *prototype*. At this stage, the *prototype* made for the plastic waste treatment workshop campaign is in the form of a digital poster.



Figure 9. Digital Poster Final Design Source: (Personal Data)

The poster is designed to conduct a campaign to students through a *workshop* on processing plastic waste into *block printing*. Digital posters will be used on social media, poster formats are 3:4 and 1:1 which explain a series of activities during the *workshop* and the *benefits* obtained. It is hoped that the final design concept that has been designed can attract the attention of students so that they can be more *aware* of plastic waste processing. At this stage, a visual mockup of the campaign design has been carried out as below:





Figure 10. Source Design Mockup: (Personal Data)

Visual mockups are used so that they can illustrate how the final product will look, giving the client a clear idea of the design. With mockups, potential design problems can be identified and corrected before the production stage.

### **Testing**

At this stage, the digital campaign design strategy for *the workshop* on plastic waste treatment has gone through the *prototype* stage that displays the visual form of designing digital posters. Although the testing stage in this study has not been carried out, it is important to plan so that the goals of the research can be achieved and the problems can be dealt with

### **Conclusion**

The results of this study regarding the design strategy of a digital campaign for a plastic waste processing workshop, the object of the research is in one of the MSMEs that focuses on recycling plastic waste in the city of Bandung, namely Olah Plastic, which was established at the end of 2020, by producing plastic waste into *lifestyle* and *furniture* products. This research uses the Design Thinking method to carry out a design strategy in a structured manner. At the *empathize* stage, namely finding problems, then the *define stage*, which is describing the data results, at this stage 360 data mapping, observation and interviews, SWOT analysis, *problem brainstorming*, and problem validation are carried out. From this *define* stage, problems are found and problem validation has been carried out, namely in terms of operations, *finance*, and marketing. Then the problem is mapped in the field of Visual Communication Design, so the problem obtained is the lack of student knowledge and *awareness* about plastic waste processing. From these problems, the ideate stage is carried out, which is the stage that finds solutions to existing problems, namely finding the right and effective strategy in increasing student *awareness* about plastic waste processing. At this stage, it has also been determined that an effective strategy is the design of a digital campaign for a plastic waste treatment workshop. After the ideation stage, a prototype is carried out so that the visual design can be seen. After



this, the testing stage is carried out to test the results of the design whether it is effective to use or needs to be developed.

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