

D.I.Y SPEAKER: INNOVATION OF GENERATION

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1. INTRODUCTION

As we know, recycling is quite crucial for us to protect the health of our environment. Recycling is known as the process of transformation of waste materials into new materials. This term also covers waste material energy recovery. It is determining its recyclability that a material can recover the attributes it had in its initial status. It is a greener alternative to "conventional" resource-saving and greenhouse gas emission reduction management. Recycling may assist minimize losses of potentially useful substances and reduce fresh raw materials usage, reduce energy usage and air pollution, and water pollution. For example, the used bureau paper would become new office paper and polystyrene foam would be changed into fresh polystyrene. The recycling of such items, such as cans, allows them to be eternally recycled without losing their purity. However, as compared to the production of the same product from raw materials or other sources, frequently this is difficult to or prohibiting expense, many products and materials are recycled by re-using them for the production of new materials like paperboards, newspapers, papers, etc. In terms of contributing to environmental preservation, recycling is highly significant.

2. OBJECTIVE

The first objective of our product innovation is to create awareness to all levels of generation about the importance of recycling in the country. This awareness needs to be spread because according to (AKSAN, 2019) the societies that have little awareness about the environment will lead to the major causes of the environmental problems in their country. It is very important to ensure that awareness needs to be spread to all levels of generation so that they know the environment is an important thing in their lives to avoid such problems as a greenhouse, plastic pollution, water pollution, and many more. It is because when the plastic, box, and much more do not throw at the right place, this will lead to the water pollution, air pollution, plastic pollution and many more. So, when the people know about the problems that they create where it gives the problems to the environment so they will be more aware of the environment. The next objective is to be more creative to create the product by using recycled products like cans, newspapers, and boxes. For example, we create the DIY Speaker. It is easier to make and it also can save money.

We want to create the DIY Speaker that can use for all families without waste their own money. It is because the price of the speaker is very high and to buy it for all family members needs a lot of money to buy it. So, by creating the DIY Speaker it can save money and it also can save the environment. The use of DIY Speaker is the same as the Speaker that we bought in the speaker and it is very convenient. The last objective is to reduce the number of waste or also known as Zero-Waste products like paper, can, bottle and many more. As we all know that, during the pandemic of Covid-19, many people buy fast food, online shopping, and so on since they are asked to stay at home and cannot go outside. Thus, by using the recycled product to create the DIY Speaker this at least can reduce the waste product and it also can make the environment clean. When going zero-waste, there are a lot of DIY zero-waste products you can make yourself, rather than buying them from a store. Making your zero-waste products is a great way to use less plastic at home, and it will allow you to say goodbye to single-use plastics once and for all.

3. MATERIALS

The first waste products that can be recycled are paper boxes. The paper boxes are made of paper pulp, red rosin paper, cellulose fiber, and other substances that are basically from the woods of trees. The durability of these paper boxes is medium which is not waterproof but its thickness is high which is stable for storage purposes for dry things. The paper boxes are also foldable and can be cut into pieces based on the desired size. The distinction of each paper box may be in its endurance, durability, strength, flexibility, purposes, and functions. These tons of paper boxes that being produces and uses each day not easily can be disposed of by the layman since they needed a particular chemical substance and specific process to dispose of it. The paper boxes may be re-purpose their function to act as different useful things from their initial function. It is because the paper boxes mostly involve in the packaging sector to cover up the fragile materials from broken.

The second waste product that can be re-cycle is newspaper. The newspaper is made of wood pulp and carbon ink to produce the letter on it. Generally, the newspaper is also from the woods of trees. The newspaper durability is so low since it is not waterproof, very thin in its thickness, foldable, high flexibility but fragile since it is easy to tear up. The newspaper minor involves in the packaging since its functions also can be the shock absorbance to reduce the chances of damage towards the goods in the packaging. The newspaper needs to be crushed and pile up before it can be used as in the packaging process. The usage of newspapers for recycle purposes to make it more useful things are countless. As the newspaper is cheap and easily can be found at any shop, people may forget the right and the most manner ways to dispose of it. The newspaper will be transformed into new things when people send it for re-cycle such as paper plates, cat litter, egg cartons, telephone directory, sheetrock, books, and so forth.

The third waste product that can be re-cycle is canned. The cans are commonly made of aluminum or steel and or metal packages for food and beverages (Materials Used in Food Packaging, n.d.). The cans are waterproof materials, can be foldable and shaped based on the desired form, have high durability and strong since they cannot be crush easily, and are low in flexibility. The can usage is many in food packaging and storage since its strength is high and can ensure and maintain the quality of the food or things in it. The wide usage of the can is enormous in many sectors where it can be re-cycle and can be used back for another function. The cans cannot decay by themselves through the decaying process like the paper boxes and newspaper. So that, if the cans being litter everywhere it can bring harm to the environment.

Figure 1. Materials of D.I.Y Speaker



4. COMMERCIALIZATION

The Speaker D.I.Y has value where it can be in the marketplace where it is a simple innovation also creativity from the waste materials which have good functions and objectives on its creation. The variety in patterns, colors, shapes, and benefits of the Speaker D.I.Y may lead to the support from those people who love the nature and environment from making any pollutions where the Speaker D.I.Y is not an e-waste product unlikely another speaker that sold in the market. So that, with various (The Benefits of

Recycling, n.d.) colorful, attractive patterns and shapes can draw the attention of the consumer to buy it since it only can be own in cheaper price sold in the market.

5. DESIGN



Figure 2. Model of D.I.Y Speaker

The figure above shows the basic idea and final product of the Speaker D.I.Y where it, later on, can have a modification in terms of color and pattern to make it more attractive. The color and pattern of the product are based on creativity and it can be anything.

6. CONCLUSION

In conclusion, any waste product that does not want use anymore can turn into a new product. This also will help to protect the environment. We can produce something new that brings a good impact or useful item by using only a waste product such as a speaker. This also will save the cost, energy and so on. When we use the waste product, this also will improve our knowledge, technical skills, and so on. This will bring a good impact on yourself and also on the environment. We are wasting valuable natural resources and polluting the atmosphere because we only recycle a quarter of what we generate in waste. We are also essentially throwing away energy and damaging land and ecosystems only to create more energy to waste. We must ensure that waste is recycled and that future generations are protected from damage. We can raise awareness about the importance of preventing waste and recycling by instilling recycling morals in our own lives, our communities, and our children. Individually, we can make a difference, and being educated is the first step in doing so. We will all live in a happier, healthier environment if we reduce our waste, reuse our goods, and recycle our garbage.

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