

Research Article

HeRa Carrier: A Multipurpose Bag

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Abstract: In this fluid period in time which the current epoch enters a new era of contemporary, the consumption of products has been overflowing the economy leading to wastage as well as contributes to climate change. Not to mention that too much food is being lost and/or wasted in every country as each second passes us by. At the consumer level, an estimation of 17% of totalled food is wasted whether it be at restaurants, households or even grocery stores. While it is unfeasible to completely eliminate food wastage, providing beneficial tools can help diminish the negative impact towards the microeconomy on top of macroeconomy. For instance, utilising multipurpose bags as a tool for responsible consumption to aid consumers maintain the food or beverages in a state of equilibrium to affirm control of balance. Thus, the idea of creating the HeRa Carrier to ensure the balance and prevent wastage of food was born. It's common knowledge that when we go to a fast-food restaurant, we tend to purchase more drinks. Despite companies giving out cardboard cup holders, the probability of them falling down is higher since they usually only hold up to two cups at a time. The HeRa Carrier will prevent such atrocities from occurring for it is designed to hold multiple cups while assuring the balance is intact. On top of that, the use of the bag will foreshorten the usage and wastage of cardboard cup holders, undoubtedly making it eco-friendly too. Therewithal, the HeRa Carrier will not only make consumer's lives easier, it will also be universal for all ages as it has lots of compartments fit for bringing lunch to school, or just bringing food to your relative's homes.

Keywords: food wastage; responsible consumption; eco-friendly.



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1. INTRODUCTION

This study proves that the containers, in which their main functionality is to hold drinks, provided by shops (Starbucks, McDonalds, etc.) are bound to become the downfall for consumers, especially ones who have to rush to their next destination. However, all of this can be resolved, with a few extra perks, with reusable containers utilised to maintain balance of drinks to assure it doesn't tip off resulting in wasted purchased beverages. The HeRa Carrier is a multipurpose bag designed especially for anyone who is in need of assistance. The bag can be used to carry the refreshments bought in a secure manner on top of being furnished with compartments to place additional items. An activity to study the effectiveness aforementioned, as well as an online based survey session which was conducted in order to unveil the information pertaining to the effectiveness of our multipurpose bag.

2. METHOD & MATERIAL

2.1 Materials and Development

As the coffee/tea/bubble tea enthusiasts already know, when we buy drinks in bulk for our family/officemate or for ourselves, they will also provide a disposable cup holder and paper bags. However, when we hold onto them, we would need to be extra careful with them to make sure they don't topple over. The HeRa Carrier is not the ordinary cup holder. The materials used are ergonomic and eco-friendly. As for the materials to avail oneself of, we replaced paper with different types of recycled material and turned it into a multifunctional bag. Instead of wasting multiple disposable cup holders, we can reduce paper waste by promoting the usage of this multifunctional bag. This bag consists of 6 cup holders, a lunch box compartment and additional sections.

The base structure of the bag is completely made out of used cardboards. A sturdy and stable shape would be formed accordingly for the bag to withstand the weight of the beverages and lunch box. Hence, it will be able to carry up to 6 beverages without causing the beverages to spill. As for the coverage and security of the bag as well as the element of fashion, we covered the side of the bag with used fabrics to ensure that it won't fall apart. The jeans pockets were made use of as the compartment to store cutleries or medicine. Leftover fabrics from clothing factories can also be employed due to the cheaper charge and it is good for the fashion industry to reduce fabric waste as well! Last but not least, we used a bag strap as the handle from an old bag consequently reducing the number of materials that otherwise would have been thrown away. The HeRa Carrier was made with special care and thought of the creators towards the wellbeing of this planet as well as the importance of meticulous detail of the dangers of overconsumption and food wastage.

2.2 Methodology

In order to put together this project, a couple of procedures had to be undertaken. Aforementioned, the creation of the bag and components inside it were divided into a few parts.

For starters, we've compiled every material needed for the construction. Cardboard of various sizes and thickness, used clothes, hot glue gun, cardboard cutter, used bag strap, and toothpicks. Thereafter, we've measured the average circumference of a fast-food cup. We've measured different fast-food cups from McDonald's to boost in order to determine the perfect size for the cup holders. Once we've compiled the average sum of cup size circumference, we've circled out the size on a cardboard panel. There are three different sizes, large, medium and small. There are 6 holes on the cardboard panel. Following up, we had to repeat the third step 3 times in order to recreate the same cardboard panel, for the purpose of increasing the thickness of the cup holder. Furthermore, once that is done, it will provide more support in holding the drinks. Next, we've measured out the walls of the bag using the cardboard cup holder as the base, in order to accurately get the size. We then cut the walls of the bag precisely according to size. We've also cut out 2 bases for the bag; one for the bottom, and one to separate the container compartment and cup holder compartment. Subsequently, we've decided to hot glue it all into place. Before we glue the base to one of the walls, we've cut out a small rectangular frame below the wall. This acts as a small window to insert containers underneath the water cup holders. In drawing things to closure, to make it more secure, we glued toothpicks between the small rectangular cardboard that was previously cut out from the wall. Then, we insert the small rectangular cardboard into the window, allowing it to easily be opened and closed.

3. FINDINGS

During the process of conducting this study, we carried out a series of questions in order to receive feedback from a number of students on the intervention of the HeRa Carrier. From our

observation, here is the data we have collected. 10 anonymous students, who took the online survey whose central focus is to decipher the public's opinion regarding the usefulness of the HeRa Carrier, had taken part in our data collecting process. In addition, there were three (3) students who contributed by handing in their handwritten responses to share their point of view about the bag.

3.1 Product

The images attached below are the views from all perspectives of the HeRa Carrier: A Multipurpose Bag. The final portrayal (third row furthest to the right) is the impression of how the consumer is supposed to hold it.



3.2 Online Survey

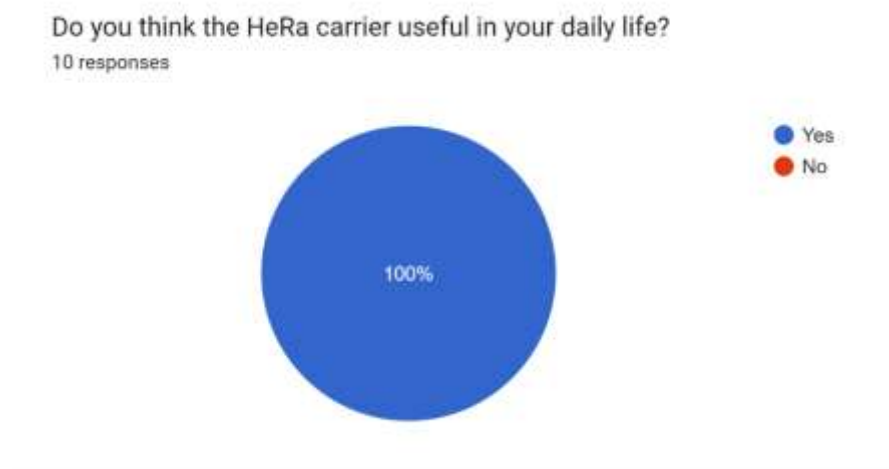


Figure 1. A pie chart depicting whether or not the HeRa carrier is useful in daily life

Out of the 10 students who took the survey, 100% of them had answered 'yes' to the question, "Do you think the HeRa Carrier is useful in your daily life?" It's unanimous based on Figure 1 that, thoroughly, the respondents agree on the serviceability and functionality of the HeRa Carrier.

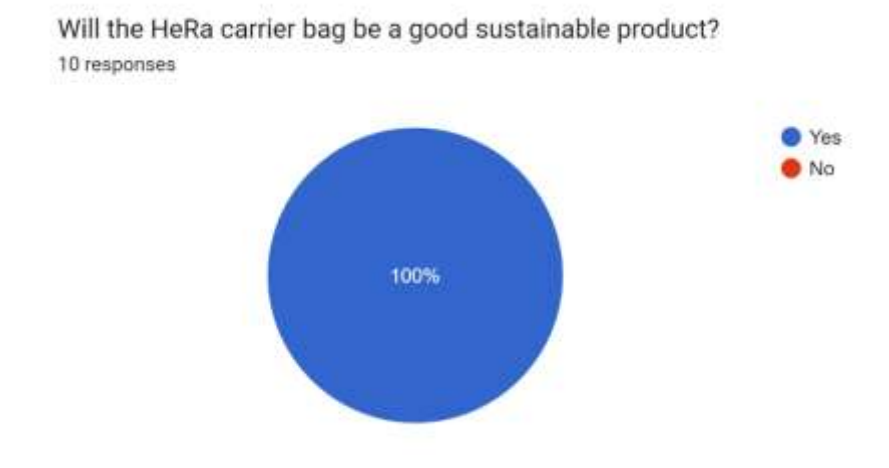


Figure 2. A pie chart depicting whether the HeRa carrier bag will be a good sustainable product

Similar to Figure 1, this question ("Will the HeRa Carrier bag be a good sustainable product?") had received an overall positive review. Majority of the respondents agree that the HeRa Carrier will be a good sustainable brand. The HeRa Carrier proves it to be viable as it employs recyclable materials such as cardboard and used clothes.

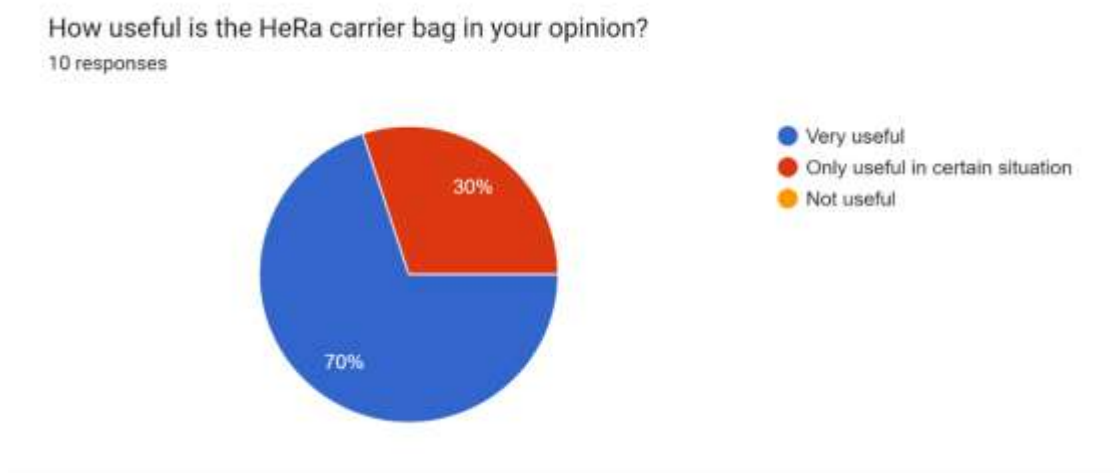


Figure 3. A pie chart depicting the practicality of the HeRa carrier bag

For the following question which is "How useful is the HeRa Carrier bag in your opinion?", the pie chart depicts the practicality of our product. 70% of the students replied with the option 'very useful' meanwhile the remainder (30%) responded with 'only useful in certain situations'. To summarise, 7 students had answered that they find the bag 'very useful' while 3 of them responded with the latter.

3.3 Handwritten Interview

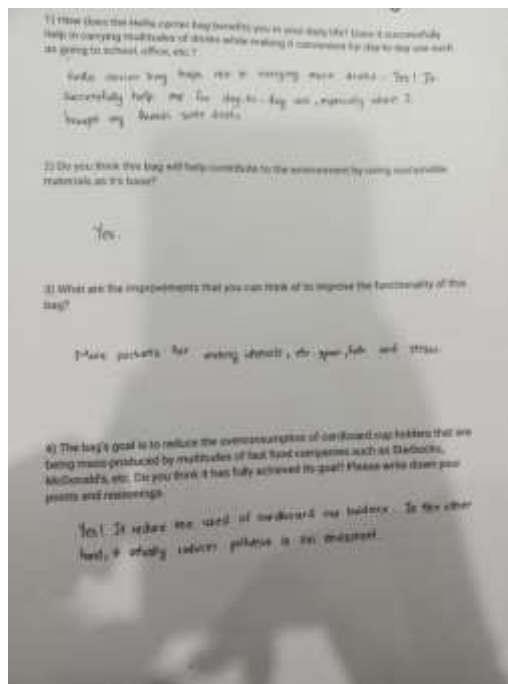


Figure 4. A handwritten review from student A

This is one of the handwritten reviews that was written by the three students. In question 1, student A agrees that the HeRa carrier bag is beneficial to their daily life by helping them carry more drinks, as well as to successfully help them in their day-to-day life. Such as bringing drinks for their friends. In question 2, the student agrees that the HeRa carrier bag will contribute to the environment by using sustainable products as its base. In question 3, student A believes that more pockets should be added onto the bags to make it more convenient to store utensils. Lastly, in question 4, student A

has written that the bag's goal has been successfully achieved as it reduces the use of cardboard cup holders, as well as reducing the cardboard pollution in the environment.

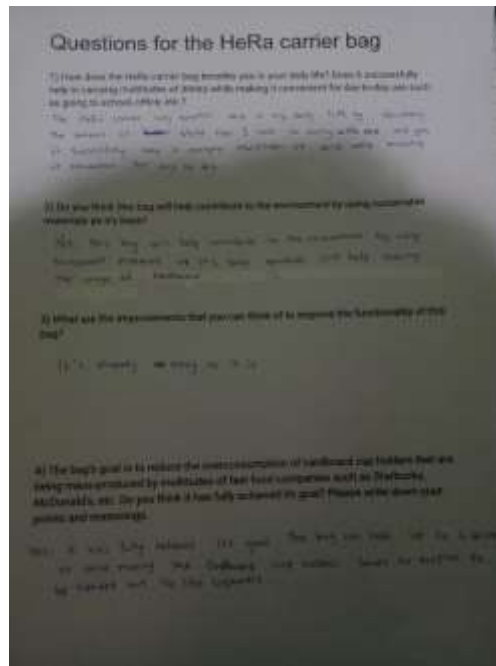


Figure 5. A handwritten review from student B

Figure 5 shows another handwritten survey by student B. Student B has agreed that the HeRa carrier bag benefits them in their daily life by decreasing the amount of stuff that they have to carry around in their hands, as well as agreeing that the bag makes it convenient for them to carry drinks around. In question 2, student B agrees that the HeRa carrier bag will contribute to the environment by answering that it will reduce the usage of cardboard. In question 3, student B does not have any suggestions on how to improve the bag as it is already alright as it is. Lastly, in question 4, student B believes that the bag has already reached its goal as the bag can hold up to 6 drinks at once. Therefore, the cardboard cup holders that are being distributed by fast food companies serve no purpose to be handed out to customers.

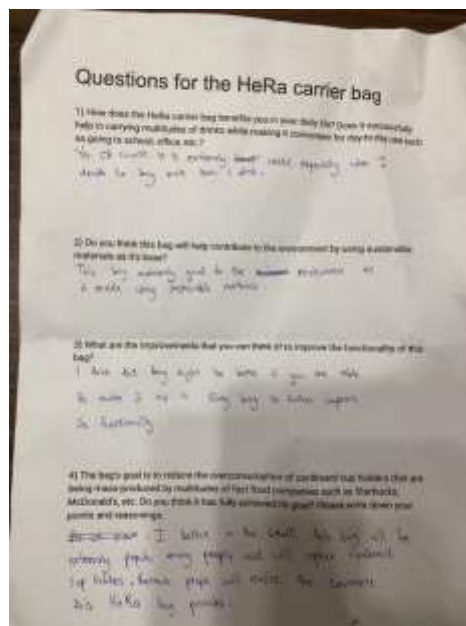


Figure 6. A handwritten review from student C

Figure 6 depicts the third handwritten survey by student C. Student C agrees that the HeRa carrier bag will benefit them in their daily life. They also admit that it is useful in most situations, especially in situations where they decide to buy more than one drink. In question 2, student C agrees that the HeRa carrier bag helps contribute to the environment by using sustainable materials. In question 3, student C suggests making the HeRa carrier bag a sling function to improve its overall performance. In question 4, student C believes that this bag will be widespread among young people and will replace cardboard cup holders. This is because people will realise the convenience the HeRa carrier bag provides along the way.

4. DISCUSSION

In hindsight of the activity conducted for our bag, we were able to measure the effectiveness of the HeRa Carrier with much success. Based on the survey and handwritten interview and surveys we handled, we gathered ample information pertaining to the multipurpose bag. Via the online survey held, all of the students found it quite practical, especially for maintaining the balance and ensuring the maximised use of the bag. Meanwhile, the surveys we handed out proved further how beneficial this bag is for everyone. To pick up the threads, the data collection had provided us with sufficient information in determining the effectiveness of the HeRa Carrier. Through the thorough findings we obtained, we aimed to measure the effective impact this bag had bestowed upon the respondents and collectively, they had aided us throughout the journey for our data collection. As we analysed the students' opinions, it is evident that the bag is functional and worth their time in utilising it and making sure there are no drinks nor packaging that would go to waste.

5. CONCLUSION

On a final note, the HeRa Carrier is a multifunctional bag that aids the consumer as well as companies to reduce the usage of cardboard. The HeRa Carrier which is derived from purely recyclable materials proves that the efficacious of the bag is indeed successfully measured from surveys and interviews. It has come to light that the students who were interviewed in complete accord agree that the HeRa Carrier is helpful to carry their lunchbox and favourite drinks to school. On top of that, the students have mentioned that this bag can be used during a feast to help in carrying multitudes of

drinks. In the bargain, one of the students stated that this bag helps them bring drinks for their friends to share in the classroom while making the assignment convenient. To culminate and deduce the inevitable, the HeRa Carrier has successfully achieved our goal which is to reduce the overconsumption of cardboard cup holders not to mention the bag being a multipurpose that serves a two in one function unlike the cardboard cup holders. On top of that, it has been proven frequently during this study that this multipurpose bag does maintain the balance for the drinks better than the ones provided by stores.

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