

## A Journey of Mutiara Food Bank “Awareness of Food Wastage” Interactive Documentary

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**Abstract:** In Malaysia, food waste has received increased attention every day. Food waste is often happening at home while cooking and wastage during consumption of cooked, canned and ready-to-eat products but the biggest contribution to food waste takes place at large companies such as Tesco, Giant and others supermarket that provide groceries. To reduce food waste issues, it is necessary to have a clear understanding of the factors influencing people about food waste perception and behavior. The aim of this research is to tell the public what is Mutiara Food Bank and how they operate. The Mutiara Food Bank is set up to collect surplus food from Tesco in Pulau Pinang and distribute to the selected recipient according to the schedule. By producing an interactive documentary, it can raise public awareness about the effect of food wastage. This research will evaluate the effectiveness of this interactive documentary in order to overcome food wastage behavior and give the option to design prevention measures.

**Key words:** Groceries, food waste, behavior, awareness, distribute, contribution

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### INTRODUCTION

Food waste is food that is discarded and still untouched. According to Jessica, food wastage is caused by the disposal of potential food that can be used. But edible foods are considered ineffective when their quality decreases and causes them to be unhealthy or dangerous. High food waste sources occur at the stage of production, processing, retail and consumption (Ghafar, 2017). Food waste also occurs through the use of food that returns little nutritional value such as excessive processing and excessive use. Edible foods are also useless when the individual considers the food unpleasant.

This research, we use documentary that brings information on the awareness of food wastage. Mutiara Food Bank is a Penang state government initiative to curb food surplus problems.

Food wastage is a growing problem in Malaysia where authorities and non governmental organisations are working to address the issue (Naidu, 2017).

Statistic show (Fig. 1) that the amount of food waste thrown in Malaysia is staggering: everyday, about 3,000 metric tons of food waste that is basically not touched and still eatable has been thrown away by households and that amount is enough to feed 2 million people hunger (Qi and Roe, 2016).

**Background of the study:** The main aim and the purpose of the study is to tell public what is Mutiara Food Bank

and how they operate. The documentary will show what initiatives they took to solve problem of food wastage.

According to Ghafar (2017), food waste can be described as all edible from materials produced for human consumption but left uneaten, either lost or discarded throughout the food supply chain from farm to fork. It is organic waste discharged from various sources including food processing plants, domestic or commercial kitchens, cafeterias and restaurants

One of the major contributors to food waste is due to the lack of appropriate planning by consumers. Sometimes people buy a lot of food without making proper planning when and how food will be available for use.

Most of the time, food is also wasted because of buying or providing too much. If someone buys or supplies too much food than is necessary then it is clear that excessive food on a plate will be wasted. In developed countries, consumers are one of the biggest sources of food waste.

Another big factor of the food wastage problem is the protocol on food safety. The food safety protocols does not provide space for isolating food that is problematic in industrial processing. Therefore, errors during industrial food processing make all food items that do not meet the standards set out to be wasted.

Food processing companies need to comply with high food safety regulations and must not define margin of

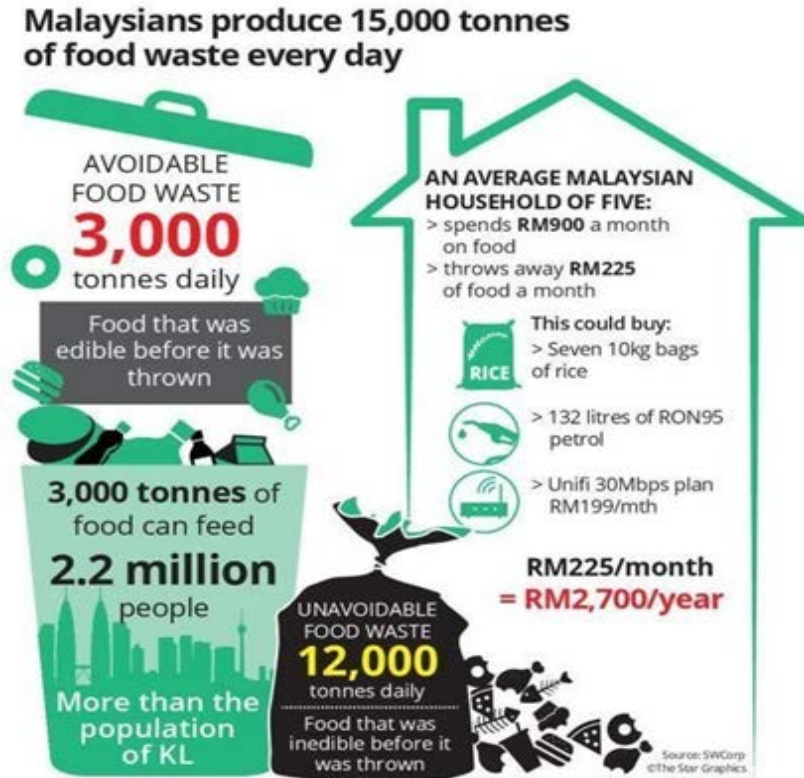


Fig. 1: Statistic food waste

error. In complying with food safety policies, companies in this sector eventually create waste due to minor errors mean that food will be rejected even if it is only due to imperfections in appearance or form.

Overcooking, production trials, packaging defects, wrong size and weight are some aspects that result in imperfections and rejection of food in the end.

Different customers have different choices and this greatly influences consumers buying behavior on food items. In particular, the user's focus here is those who simply choose vegetables and fruits that are not blemished (Danyi *et al.*, 2016).

The tendency of consumer behavior can force food service operators in restaurants and hotels to maintain a large menu and luxury services while ensuring consistency which ultimately leads to food wastage.

The impact of food waste also causes global biodiversity loss. To maximize agricultural yields, farmers are increasingly attacking the wild areas for more fertile soils resulting in loss of biodiversity (Strotmann *et al.*, 2017). As a result, practices such as burning, deforestation and conversion of wild areas to farmlands have destroyed natural habitats for birds, fish, mammals and amphibians. Farming practices such as mono-cropping are also a source of biodiversity loss. Large-scale livestock breeding

for the use and use of pesticides in crop production also contributes significantly to nitrogen, phosphorus and chemical pollution in rivers, rivers and coastal waters that affect marine life.

In addition to the environmental impacts, food wastage also results in direct economic costs. According to FAO report estimates, the economic losses associated with food wastage is about \$750 billion dollars per annum.

Filmmaker Karim Chrobog looks at the staggering amount of food wasted in the US-a problem with major human and environmental costs (Fig. 2 overview of documentary). Australians waste \$8 billion each year on food that ends up in the bin. The video show more about this huge yet unrecognized issue (Fig. 3 about food waste).

The FWF project demonstrates that reducing food wastage is a logical priority to establish more sustainable patterns of production and consumption (Fig. 4 food wastage footprint).

Interactive documentary about the company's culture and various service lines in a light hearted, innovative and interactive way, transforming what are usually dry and boring recruitment videos (Fig. 5 gamified interactive recruitment experience). Video documentary about food wastage in Pulau Pinang (Fig. 6 food waste situation).



Fig. 2: Overview of documentary



Fig. 3: About food waste



Fig. 4: Food wastage footprint



Fig. 5: Gamified interactive recruitment experience



Fig. 6: Food waste situation

## MATERIALS AND METHODS

In this chapter, the method of producing a documentary is explained. There are specific phases to complete a documentary. The research methods are explained in this chapter. This chapter also discusses the software and hardware used throughout the process of producing a documentary. Other than that there will be explanation about the testing and distribution of the documentary.

To produce a great documentary or film, production team must go through to every stage in the process. There are 3 stages required in the middle of making a documentary. The procedure is pre-production, production and post-production. Each procedure has its own difficulty and regulation depending on the business.

**Pre-production phase:** In this stage, the planning on the concept and ideas occur. We decide to choose a journey

of Mutiara Food Bank and make it as a documentary to show to public about the effect of food wastage. Once the concept is decided, writing the script and storyboard will start. In this stage also assembling the production crew is important. Good production crew will produce good work. Equipment check-up like what to use during the shooting process also occurs in this stage. Location discussion and also agreement is one of the processes in this stage. For the location we do the shooting around Penang's area.

The pre-production phase of this project is where all planning takes place before the capture of the camera. According to Michelle Cassel, pre-production is essential in the film making process because without proper planning, your production could run over time, the film could go over budget or you could find yourself in the editing room with missing content. Some even say, "Production is pre-production". Whether the storyboarding, location scouting or budgeting, each of the

steps below plays a crucial role in the success of your project. In this stage, the planning on the concept and ideas occur. Whether measured in minutes, hours or days, this planning phase sets the overall vision of the project. Pre-production also includes arresting and casting locations. Once the concept is decided, writing the script and storyboard will start. Storyboards can really launch post-production processes when it's time to edit them. In this stage also, assembling the production crew is important. Equipment check-up also occurs in this stage. Location discussion and also agreement is one of the processes in this stage. Anything and everything about a video production's logistics are coordinated from scratch based on the script and everything must be in place before the principle photography begins.

**Production phase:** The filming process takes place in this stage. According to Grove (2014), the second stage, production is right after you get financing. Now you quickly get everyone together and spend nine to eighteen days of 14-18 h each, shooting from dawn to dusk. Production is a ball buster. The filming process takes place in this stage. Production starts when recording is recorded. This process will capture all the scenes and information captured in the pre-production process. During the production process, we use various lighting requirements, framing and working on the composition. Some projects will also shoot B-roll during the production process. B-roll is an additional recording that can be put into the finished product. Selected users use the evaluation form to check the video documentary and to give feedback (Renee, 2016).

**Post production:** The editing process starts in this stage. All the colour balancing, sound effects, music background and others editing process will be held here. Then, the sharing and distribution of the film or video occurs. The post-production process begins once all the recordings have been captured. This is actually one part of the video making process.

According to Sara Strickland, this stage includes editing, adding voice over or music, adding any graphics, text or additional footage to the documentary. All the color balancing, sound effects, music background and others editing process will be held here. If we produce our own video content, there will be a little learning curve at first but it will be very enjoyable. Main production such as putting the last paint in the room and it will be worth the time to learn its basics. According to Sareesh Sudhakaran, here's really no "right" way to go about editing a project and work flows vary greatly depending on the editor as well as the specific project they're working on. Then, the sharing and distribution of the film or video occurs. This is where your video project

really will come true. Selected users use the evaluation form to check the video documentary and to give feedback.

## **RESULTS AND DISCUSSION**

Alpha testing and beta testing was conducted to find out the results if the interactive documentary achieved the target and meets the main objective. Beta testing for this interactive documentary is a set of questionnaires has been created to gain the feedback, comments and suggestion from potential user. The questionnaire has been distributed and answered by 30 surveyors.

The age of respondent that did the questionnaire shows that 85.3% age around 19-25 years old. While 8.8% age 26-45 years old above age of respondent. Besides, the amount of respondent that agree interactive documentary the best way to get information or not shows that 64.5% strongly agree that this video will get information. While 35.5% agree this interactive documentary will give information. In the relevance part of the questionnaire it has the level of understandable of the content whether the content is relevant. The surveyors need to rate from 1-5 where 1 is the worst and 5 is the best 2 respondent rated the content 3 as the average and 17 respondents rated 4 as good. The remaining 14 respondents rated it excellent. Thus, makes the content of the interactive documentary easily understandable.

For the music part, the respondents rate suitable and uplifting the mood while viewing the interactive documentary. Anout 16 respondents rated the content 4 as the good and 13 respondents rated 5 as excellent. The remaining 5 respondents rated it average.

The used of audio is very important in delivering the content of this interactive documentary. This is because most of the explanations are delivered using audio. To fulfil the requirement, a clear audio is a must. The audio can be considered clear based on the rate been given. The rated of music consider some people enjoy traditional music and some are not. Then, the ease of use of the interactive documentary shows that 79.4% respondents rated the content as the excellent and 20.6% respondents rated as average. This result is valid to consider that the video is easy to navigate. The suggestion or recommendation about the interactive documentary shows that 97.1% respondents rated the content as yes to suggest their friends and relatives to watch this interactive documentary.

In conclusion, the testing result was to find out about the feedback on the whole project that has been develop. From the result that developer get, it shows respond of public on the awareness of food wastage that include in the interactive documentary then aware about the existence of the video it selves.

## CONCLUSION

As the developer of the a journey of Mutiara Food Bank “Awareness of Food Wastage” interactive documentary, the developer has successfully achieved in developing an interactive documentary for website that meets the main objectives for this final year project based on the testing result. This application is a combination of multimedia elements to make it more attractive, interesting and effective to attract user to use it. The developer developed an interactive documentary as a more effective way to deliver the information on the effects of food wastage to public. A journey of Mutiara Food Bank “Awareness of Food Wastage” interactive documentary also proven that the users understand the information better rather than visit the places it selves.

During the duration given, the developer needed to learn other things that is not teach in the class room. The developer spends, so, many times to look through all the tutorials that can be used in the project. Despite that the developer learned how to manage time properly and follow the duration allocated based on Gantt chart to complete the whole project and make sure it run smoothly and all the tasks are complete perfectly. The developer also enhances the public relations and communication skills when dealing with the target users during the testing session. The developer also enhances the skills and knowledge in the software that the developer used while develops this interactive documentary.

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