Republic of the Philippines

**POLYTECHNIC UNIVERSITY OF THE PHILIPPINES**

COLLEGE OF ENGINEERING
COMPUTER ENGINEERING DEPARTMENT

CMPE 30193

Methods of Research

# TITLE PROPOSAL

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**Title:**

FOOD FOR LESS (FFL): STRENGTHENING LOCAL COMMUNITY FOOD WASTE MANAGEMENT PROGRAMS VIA ANDROID MOBILE APPLICATION PLATFORM

**Rationale:**

The fact that food waste management problem is a delicate issue in the country is an understatement, not counting those that are affected by COVID lockdowns keeping workers away from their needed income and spiking a decade high unemployment rate for most of the cities. According to the Food and Nutrition Research Institute of the Department of Science and Technology (2021), about 1,717 metric tons of food are being wasted every single day including the P23 Million worth of rice enough to feed 4.3 million individuals. (International Rice Research, 2021). Considering that the Social Weather Station (July 2021) reported that 3.4 million Filipino families went hungry "at least once" between April and June 2021, a data that is still higher than the pre-COVID crisis rate of 8.8 percent or 2.1 million families; with proper management and platform, the decade-long problem of hunger in the country can soon be halted if not eradicated using new technologies available in the hands of almost everyone today.

Food for Less (FFL) aims to alleviate food waste management problems by allowing restaurants to donate food as fast as possible to those in need. The app will help them communicate with non-profit organizations, non-government organization, churches, or charities that feed homeless, and/or poor individuals. Since a lot of homeless and poor people in the country won’t probably have access to phone and internet, these third-party organizations will mediate between the “helper” and beneficiaries. The researchers use the word “helper” but in reality, the food will be bought at a much lower price in order to incentivize the restaurants who

donate the perfectly edible food instead of throwing it away, and also make sure that the food being donated is safe to eat.

**Statement of the Problem:**

This study aims to combat the amount of food wasted in areas that uses the app with the purpose of answering these questions:

1. How much food (kg) is being thrown away in selected restaurants per week in Binangonan, Rizal before using the Food for Less (FFL) mobile app in terms of:
    1.1 Rice
    1.2 Meat
    1.3 Vegetables / Fruits / Others
2. How much food (kg) is being thrown away in selected restaurants per week in Binangonan, Rizal after using the Food for Less (FFL) mobile app in terms of:
    1.1 Rice
    1.2 Meat
    1.3 Vegetables / Fruits / Others
3. How much food (kg) is being thrown away in selected restaurants per week in San Jose del Monte, Bulacan without using the Food for Less (FFL) mobile app in terms of:
    1.1 Rice
    1.2 Meat
    1.3 Vegetables / Fruits / Others

4. Is there a significant difference between the amount of food being thrown away per week in San Jose del Monte, Bulacan (control group) and amount of food being thrown away per week in Binangonan, Rizal (experimental group) in terms of?
    1.1 Rice
    1.2 Meat
    1.3 Vegetables / Fruits / Others
5. For the experimental group, how many times per week do you donate to the needy when using the app
6. For the control group, how many times per week do you donate to the needy?
7. Is there a significant difference between the instances of food donation to the needy by the experimental group and the instances of food donation to the needy by the control group?

**Scope and Limitations:**

The main goal of the project is to allow charities and other non-profit organizations to communicate directly to the restaurants with available food to donate, without handling the logistics part of the process. The restaurants will use the app to show the number of available products to be “donated”, and the organizations will buy the available products at a low cost, claiming it for delivery. Once tagged as “for delivery” the two party will have to agree on whether food will be delivered or fetched. In future development, third-party shipping companies like Grab, Lala Move or Food Panda can be hired to partner with the app once it’s being used widely. Also, experimental procedures are only limited within the researchers’ local community and does not

certify that other regions such as very rural areas, will benefit from the application. Nevertheless, success of this quasi experimental research will prove the necessity of online platforms for food waste management.