Kirkwood Community College and Khawarizmi Technical University College

Foonection: Food Waste Mobile App

Business Concept

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Problem

Food waste is a major issue when it comes to restaurants, farmers, and local consumers in the United States and Jordan. In his 2019 article, *Why the U.S, Wastes More Food Than Almost Any Other Country,* Rick LaBlanc, sustainability writer for "The Balance Small Business" journal highlights the economic and environmental impact of food waste. In the US alone, almost 40% of food production is wasted. This is also a concern for Jordan where waste is over 1.3 billion kg per year (Food Waste…, 2018). Finding a sustainable solution to this issue will reduce waste both short and long-term and help farmers, consumers, and restaurants in both countries.

1. **Solution**

Foonection (a combination of the words food and connection) is an application for mobile devices that will connect food waste producers (restaurants, cafes, and buffets) with farmers and other consumers who can reuse the waste. When signing up or logging into the application, users will be able to select if they are a buyer or seller of the food waste. The application will have two rooms: a livestock room that allows for the sale or donation of food that can be fed to livestock and a recycled waste room that allows for the sale or donation of food that can be composted or recycled.

During our SWOT analysis we were able to identify key components in each section for our application. The identified internal strengths include easy accessibility, sustainability of the solution, uniqueness, adaptability, and connectivity. Internal weaknesses include food storage costs, and outsourced transportation. We are excited about the many external opportunities this

application allows. These include expansion to other cities and countries, creation of an application for computers, potential to create jobs (delivering the food waste) and working with charities as country/state laws permit. External threats that come with our opportunities include FDA guidelines (in the US), other countries health and safety laws, internet connectivity issues in outlying areas impacting customer connection and competitors such as UberEats, DoorDash, Y Waste, and Olio. It's important to note however that food delivery apps like DoorDash are different from Foonection because they deliver specific food orders from restaurants to customers. Y Waste and Olio connect the community with shops that have surplus food or food that is close to expiration at a discounted rate. Foonection connects shops with farmers and recyclers that will give the waste to animals who can safely consume it or compost the waste.

Moving forward from the initial launch of Foonection there are plenty of opportunities for growth. Foonection will initially launch in Cedar Rapids, Iowa (US) and Amman (Jordan). Therefore we have the opportunity to expand to other countries that will allow our app to work properly. Other opportunities include jobs such for delivery drivers, giving to charities for human consumption (based on country allowances and the need for this option), and donating food which will create tax incentives for companies.

Sustainability

When it comes to sustainability associated with food waste, our team has created an application that will improve the sustainability of cities and communities, create responsible consumption and production of food and food waste, as well as awareness of climate problems and actions which speaks to the circular economy. Our application uses these pillars of sustainability when organizing our applications design and accessibility for the community and

business owners. Our application will help the people and community as well as create a viable plan of action for eliminating food waste.

According to the EPA, "Food waste implies that the food no longer has value and need to be managed as waste." The EPA defines waste food into three different categories including excess food, food loss, and food waste. Excess food is defined as food that is recovered or donated to feed people. Whereas food loss is referred to as unused products from agriculture sectors (such as unharvested crops) that can be used to feed animals. Food waste however is referred to as unusable food (plated food) that has been served but not finished and has no reusability. With food waste and productivity also comes the excess use of water and concern for water scarcity.

According to the United States Environmental Protection Agency, " Agriculture is a major contributor of water scarcity and water contamination in many regions of the world" and the same resource recognized that "The current sources of water pollution can be described as animal waste, antibiotics, hormones, fertilizers and pesticides.'' All these effects of pollution are the main reasons for the production of unsafe food such as food waste becoming harmful and not safe for human health or consumption. Hundreds of millions of households around the globe struggle to meet basic dietary needs because a huge portion of food produced worldwide ends up in the garbage. Food waste has become a serious environmental and economic issue.

The goal of our application is to offer another way to reduce waste production which, in turn, will eliminate climate issues associated with food waste. Foonection will create sustainability in our communities and cities as well as a viable solution for food waste bringing awareness of the problem by fast tracking the ability for the food industry to deliver sustainable

nutritious outcomes and eliminate food waste by creating a sustainable and highly connective application. This will make a more regenerative agriculture the mainstream and enhance the circular economy.

Market

The market for Foonection is going to be in Amman, Jordan and Cedar Rapids, Iowa in the United States. Specifically, Foonection will be used by farmers in the Midwest of America and by restaurants in the Amman area for Jordan. The app will receive the leftovers from other farmers, restaurants, and potentially grocery stores. Foonection will compete directly with other companies in the US. Kuntz By-Products, a food waste removal and recycling company located in the Midwest (Illinois) in the USA, sorts through the waste to turn it into animal feed for their own livestock. Quincy Farm Products is also located in the Midwest of the US and works with food manufacturers to take their scraps and turn them into animal feed. There are other businesses starting to donate unused cans, composting, and getting involved in food waste recycling. In Jordan, however, there is no competition. Food waste is a growing problem that is not going to go away. Most food waste ends up in landfills which produces large amounts of methane and harms the environment. Foonection is unique because we are giving back to the community and helping out local farmers and restaurants. We will be located in two countries and will focus on the larger issue of providing a sustainable solution in both communities.

Marketing Strategy

The target demographic for this app is for the consumers and the producers that we are attempting to connect to minimize food waste. Our first target audience will be restaurants, grocery stores, and food manufacturers. We will start with smaller and local places first and

work our way up to getting large corporations involved. Our second target demographic is the farmers and gardeners. The consumers will most likely be middle aged farmers who have access to the internet. This could be a lady in your neighborhood looking for cheap fertilizer for her garden, to large hog confinements who could use the food waste as feed, or farmers who could use it to fertilize their fields. To promote this app we will use word of mouth and ads on social media, as well as print media in each of our areas to start, then as the app grows, so does our advertising campaign to different areas. The app will be free and the purpose is to help the environment by reducing food waste.

We tested our prototype of the application with the target audience as addressed in the market section of our business concept using a prototype design formatted from our Jordanian partners to gather information, feedback, and enhance our idea. The information that we gathered from the people we interviewed (Josh Hailby of Hilby Farming & Cailey Barth at Panera) was that as long as the application was affordable and easy to use, they would use our application to minimize the food waste problem in their businesses.

Finances and Resources

For the startup of our app it will cost approximately 20,000 US dollars to get our app on Apple and Android stores alike (Moh'd Rafiq Zabian of HashTechs LLC). We would like to either find and investor to help us acquire the startup fees for the development of the app and/or acquire "Angel" funding. Our revenue to continue to run the app will be acquired from the 10-15% that we would get from each sale. Our key resources for the app will come from the food waste provided by farmers and food service owners. As well as acquiring the ability to have a highly connective app by having our app available on the Apple store and the Android Play

store. Our app will also have the ability to take monetary donations for our app as well as to create awareness and prolong the functionality of our app as another form of revenue.

As a team if we were to win the 1st place prize of 3,000 dollars associated with the Global Sustainability project, we would use the money to help with the finalized development of the app and or use it to promote and market our app once it is up on the app stores.

Final Pitch

- Foonection is a mobile application for Android and Apple
- Foonection connects restaurants and cafes with farmers and recyclers
- Foonection helps consumers who support the green movement
- Foonection is sustainable because the waste will be safely fed to livestock or recycled and put to a new use
- Foonection is profitable because we will take 10-15% from each sale and take in monetary donations

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