MaDeGo delivery

1. Problem

A percentage of the population are unable to go outside and buy their own groceries. Reasons for this inability include being lazy, being busy, and living in an area with no specific type of grocery.

2. Solution

The app we're making will ensure that anyone living anywhere can get their fair share of groceries. We're going to deliver groceries right to your doorstep with our delivery truck.

3. Value Proposition

Supermarket in your pocket.

4. Features

- Able to order delivery food and groceries with this application.
- Automatic delivery without humans controlling.
- Easy to understand UI, has search function.
- Estimated time delivering when ordering and real time delivery tracking.
- Notifications to customers for real-time updates.
- Able to check previous orders, payment history.
- Online payment via mobile banking.
- Safety product box that unlocks once QR code is scanned (smart technology). There's still a box inside the safety box to contain the product.
- Security camera and alarm system that detects aggression (physical attacks).
- Claw system that dispenses the safety boxes to the product retrieving area.
- Self regulating temperature.
- Many types of trucks (Fresh produce, cold objects, warm objects).
- 24/7 delivery by AI trucks.

5. Feasibility

5.1 Technological

Self driving and pathfinding technology already exists, so we are using that for our delivery trucks. We'll have a warehouse that restocks the delivery trucks, and also performs maintenance. The claw system already exists in some vending machines, so we're modifying some aspects to fit our purpose of grabbing smart safety boxes. The smart safety boxes can be done by modifying some aspects of the ordinary smart lock box to work with the claw system. Aggression detection technology comes in the form of brunt force and trauma detection, works like car alarm but adjusted to be a lot less sensitive.

5.2 Financial

For the budget, we're making the AI controlled trucks 10%, the human controlled trucks 20%, and the motor-bike riders 70% of the delivery vehicles. We're planning on reducing the number of the motor-bike riders and the human controlled trucks after we've gained a lot of money, then increase the amount of AI controlled trucks afterwards. We're planning to accept sponsorship and advertisements to our platform, so that we have more

oney for our budget. We're also planning to partner up with companies like BigC, Macro, Maxvalu, Tesco lotus, and Villamarket.

6.Analysis

6.1. Competition analysis

- Identify competition

We have identified our competitor as the mobile grocery trucks and we may can consider food delivery apps as our competitor as well.

- Business model of the competitor

For the mobile grocery trucks they have a simple traditional way of selling their grocery. They have the pick-up truck modified to grocery truck and then they will drive around the city around the area. They can drive for the whole day and sell the groceries with their megaphone announcing their arrival, and people will come out to buy the groceries.

For the food delivery apps, they target people who do not want to go out to eat. People can order their favorite meals and have it delivered at their doorstep.

- Determine what products your competitors offer

The mobile grocery trucks offer products such as meats, vegetables, and sometimes traditional thailand sweets.

The food delivery apps offer many restaurants to choose from, there're also promotions that reduce the shipping cost as well.

- Research your competitors' sales tactics and results

There are 2 competitor **mobile grocery trucks** that usually don't have sales tactics, and it remains this way for a long time. As for food **delivery apps** they have many sale tactics up their sleeves. For example, collaboration with shops to make an exclusive promotion such as 50% off on some product if customers were to buy the food using this particular delivery app, this results in more sales which benefits both the producer for more sales and the customer for low-priced.

- Pricing of competitive and perk they offers

For the price range of the mobile grocery trucks, they're usually 5 to 10% higher than the price you can find in the markets.

As for the perks, the mobile grocery trucks offer things such as fresh meat and vegetables. They're basically a mobile mini market that only comes at specific times.

For the price range of the food delivery apps, they depend on the distance between the shops and the customers. It can't be too low because they have to pay the riders.

As for the perks, they offer the comfort of being able to order any of your favorite food at any time without having to step a foot outside.

6.2. Impact analysis

Errors that might occur during the delivery include, system errors (server down, software glitch, bug in the code), and physical accidents (attacks and theft attempts, route blockage or destruction, hardware malfunction). There are also outlier cases that might affect the delivery such as natural disasters and human errors. For the software errors, we can hire programmers to take care of it while compensating for any loss. For physical accidents, we can refund the money and respond to each case accordingly.

6.3. Business success analysis

We have analyzed our 2 competitors, mobile grocery trucks and food delivery apps. Both of these are successful in their own way, so we can safely assume that our business model will thrive in the market as well due to occupying a niche. We offer many varieties of groceries and we deliver within 1 day, so our customers are sure to be satisfied. Since the AI driven trucks comprise only 10% of the vehicles, we can reduce the cost of purchasing our own vehicles by a lot. We also reduce the cost of the human riders if we use the AI trucks. The customers can order anytime without having to wait for a specific time.

Appendix

Target demographic: People who want to consume fresh produce & dairy products, and people who need ingredients to cook their own food.

Concept: AI delivery groceries. Our concept will involve self driving 4 wheel electric vehicles which are automatic to drive in every district in bangkok. The vehicle will drive itself using AI path navigation to navigate its way around the district, when a customer orders the groceries delivery, the vehicle will start to head that way automatically and deliver the groceries. When it arrives at the destination, the customer will have to scan the QR code on the vehicle after paying online, then it will spit out the box with groceries in it.

Details of our Project:

Application: Users can order groceries without going to market via application. In the application there are categories such as meats, vegetables, and fruits. When you order your groceries, There will be a traveling time estimated till you get your groceries.

Area of operations: The AI controlled trucks will patrol the high traffic areas like in the downtown and in the city. The human controlled trucks will patrol the suburban areas. The motor-bike riders will patrol their own areas, and choose to take orders if they’re close enough.

Potential growth: As we’re moving forward to a future that supports smart technology and the internet of things, we’re going to grow and find success in our endeavors too. As we have seen during the covid outbreak around the world, delivery services have become much more profitable since people are forced to stay inside their homes. Now, even after the outbreak has gotten better, people are still relying on online delivery services. While it’s true that people will prefer cooked meals being delivered over making their own food, there will still be some that like cooking with their own hands. We will also employ more AI driven delivery trucks as the technology progresses.

Roles:

1. Proposed innovation including motivation & value propositions
Member(s): Nithit Lertcharoensombat 65130500212, Kampol Suwannatam 65130500201
2. Business model for growth including revenue, profitability and/or sustainability mode
Member(s): Shinathaj Chinskul 65130500238
3. Customers, customer segments and potential growth
Member(s): Ratchanon Promsombut 65130500242, Pacharakrit Arsawiset 65130500263
4. Technological feasibility that includes software solutions
Member(s): Pongkhun Poonsupsopon 65130500216
5. Competition analysis,impact analysis and business success analysis
Member(s): Pavadol Dechasidphaisan 65130500240
6. A 3-minute pitching video with demonstration of proposed software solution (mock-up)
Member(s): Thanapat Thanatawee 65130500239