



37 Laurel

MeBot

[Background information]

The omnipresence of vending machines has allowed an increase in the production and consumption of plastic. Vending machines are especially very prevalent in Japan. This means that an insurmountable amount of plastic is being disposed of. However, plastic is one of the greatest wastes, and they are detrimental to the environment. Research done by Nikkei Keizai Tsushin Co. has shown that approximately 23.2 billion pet bottles are sent to consumption every year (numbers are back from 2016).^{1,2} Removing plastics from vending machines that the majority have access to, will drastically change the manufacturing process of vending machines. In order to accomplish this goal, our product, MeBot will replace the existing vending machines by directly pouring drinks to the customers' water bottle and our original bottle called the "MeBottle" that utilizes sustainable material.³ No longer will producers of vending machines use plastic nor the customers who access the vending machines. We ensure sustainability to last until the end for both producers and consumers. In addition, we will aim to keep the convenience of former vending machines as quick-pay and smartphone apps would be incorporated into MeBot. This product can accomplish five of the Sustainable Development Goals proposed by the UN, for instance goal 9 "Industry, Innovation, and Infrastructure", 12 "Responsible consumption", 13 "Climate Action", 14 "Life Below Water", and 15 "Life on Land".⁴

1: <https://www.nikkankeizai.co.jp/publication/daily-news/backnumber/detail.php?id=317>

2: <https://lessplasticlife.com/plastics/trash-recycle/pet-bottles-consumption-in-japan/>

3: <https://tb-m.com/en/limex/about/>

4: <https://sdgs.un.org/goals>

[Target]

From the data given by Ryutsu news, the people who use vending machines on a daily basis are most common in students and workers, and the location where the most

sales from vending machines arise, is near stations and office buildings.⁵ By placing our product at these locations, many people would have access to MeBot. MeBot can assist those who do not have much time, by making it available for the customers to become a member of MeBot, and being able to pre-select their drink from the app, which can reduce the time and process to get the drink. In fact, MeBot only uses electronic money, so by scanning it against MeBot, any drink can be bought in an instant without having to go through the trouble of getting their wallet out and taking out change. Moreover, by having the MeBottle, all of the drinks offered will be discounted to being $\frac{2}{3}$ of the original price. Therefore, MeBot is especially effective for busy workers and students, who mostly drink outside and are able to buy instantaneously during their busy schedules and at a lower price.

5: <https://www.ryutsuu.biz/strategy/l012923.html>

[Product explanation]

<Function> MeBot is a vending machine that can dispense the drink by reducing the use of plastic bottles, by pouring the drink into any water bottle that customers have. MeBot offers an official application where anyone who has signed up can freely utilize it as part of their daily life.

<MeBot original bottle> MeBot will sell an original eco-friendly bottle called the "MeBottle", for customers who do not have their own. MeBottle can be used by anyone, but it is especially effective for people who have concerns about carrying heavy bottles. Since MeBottle is created by sustainable plastic materials made out of limestone, it is lightweight and eco-friendly. Limestone is a self-sufficient material that is abundant all around the world and eco-friendly in the manufacturing process, since it would not produce much toxic chemicals during the process of pressuring and heating (CaCO_3 , the main component of limestone, is not very toxic).

<How to use>

a. Selecting a drink: Customers can select the drink from 20 types and 5 different sizes ranging from 100mL to 500mL, through a

smartphone application that all customers have to pre-register.

b. Payment: To use MeBot, the users will be required to register for our membership, a free subscription or monthly subscription.

c. Setting “my bottle”: After customers have selected the drink, they will set their own bottle in the required section of the vending machine and wait for 10 seconds until the process is completed. If customers do not have their own bottle, they can directly buy the MeBottle from the MeBot.

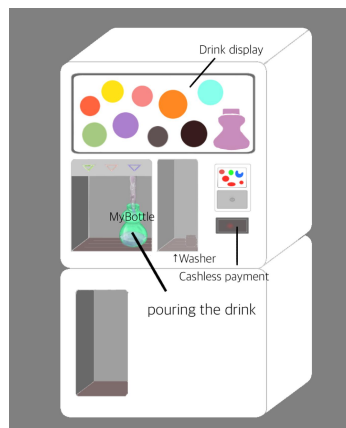
d. Washing / Sterilizing the bottle: If a customer wants an additional drink, they can wash and sterilize their bottle by pressing the “wash” button, where the vending machine cleanses the bottle with a powerful mist that comes from microbubble. Microbubble has the ability to conserve 60% of water that will indeed minimize the amount of water that will be used.⁶ Moreover, embedded UV light that can effectively sterilize the bottles instantaneously.

6: <http://www.haraken-k.com/microbubble/product.html>

【Marketing】

If a customer signs up to the membership as a free member, they will have to pay the price of the drink every time they use it, through electronic money. If a customer signs up to the

membership through the monthly subscription, they can use MeBot without any limitation to how much they drink. Moreover, app users will receive 1 point each time they use MeBot, and they can receive a free ticket by earning a total of 15 points. Advertisements that we will use to promote our product and services will be through commercials in television, trains, and in websites, along with the use of social media platforms such as Instagram, TikTok, and Twitter. As our target audiences are specifically students and workers who

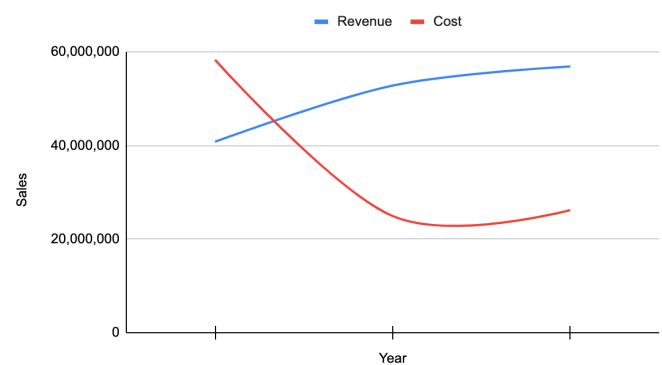


frequently use vending machines, it is effective to use platforms that are easier for our target audience to access, to find out more about our product through these advertisements.

【Financial plan】

Initial funds will be raised through investments from private companies and banks. The money will be spent on production, marketing, etc. Buyers can join a MeBot monthly membership plan which costs \$17 per month with unlimited access to drinks, and buyers with no membership will pay each time they purchase a drink which will cost an average of \$0.20 per 100ml.⁷ Buyers can use their own water bottle or purchase our original brand product, the MeBottle which costs \$20.⁸ We expect 200,000 people to join the membership in the first year and the numbers to gradually increase. We will manufacture 8000 MeBots in the first year and will not increase the numbers drastically for the first several years. We will hire 8 office workers and 15 part time workers for management of the MeBots. The initial fund will be \$2,000,000. In the first year, we are expecting our profit to be deficit but in the second year, we will reach the break-even point.

Finance



7: <https://recipe-book.ubiregi.com/articles/drink-bar/>

8: https://www.amazon.co.jp/s?k=%E6%B0%B4%E7%AD%92&ref=nb_sb_noss