

Easy Receipt

Final Report: New Venture Creation

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Idea

Background:

In recent years, we have seen many initiatives from the government and retail stores towards a greener environment. The most effective being the plastic ban which was put in place provincially in Newfoundland and Labrador on the 1st of October 2020 under the Environmental Protection Act [1]. The plastic bags' ban has shown to be a great success with easy execution from the public that has now shifted to reusable bags and paper bags. Inspired by the Environmental Protection Act and a startup in St. John's called Mysa that is working towards fighting climate change by reducing energy consumption from heaters, "Easy Receipt" was shaped.

Problem Statement:

Currently, thermal paper receipts have been in use and it is one of the basic things that the public ignores and does not put much thought into, but that little piece of paper is causing extensive damage to the sustainability of the environment. These thermally coated paper receipts contain a chemical called bisphenol A (BPA), which in the screening assessment report by the Government of Canada showed the ability to harm people, animals, and plants (Canada 2008) [2]. The assessment was performed in 2008. Therefore, with the growing population and demand for goods in Canada, the harm is surging drastically. Moreover, thermal paper receipts can not even be recycled due to BPA. From a study in the US alone, paper receipts consume over 3 million trees, 9 billion gallons of water and generate over 4 billion pounds of CO₂ (the equivalent of 450,000 cars on the road) and 302 million pounds of solid waste during its production [3]. Thus, Easy Receipt aims to curb such environmental risks and eliminate the use of thermal paper receipts.

Goal Statement:

To support the green agenda, we have introduced the Easy Receipt; a new approach to generating digital sales receipts. With just a wave of their smartphones on our tap receipt product, the store will be able to provide them with a more simple and illustrative receipt. Our product will reduce/eliminate the heavy amount of BPA-coated thermal paper used in retail stores by integrating it with their existing POS systems. Finally, Easy Receipt will introduce buyers to an efficient means of receiving, storing and retrieving store receipts in the long run.

Vendors are also benefited in addition, such as we will be storing and organizing the data from both sides on our dedicated cloud which will be helpful for both parties (consumer and merchant). The merchant can access this data to improve products and marketing to put the customers at the center of their business. Furthermore, customers can access this data for expense tracking.

The Product and Services

Specifications:

The solution we offer has two parts, software, and hardware. Software is the phone application that will store the receipts and pull them up from the cloud database for the user. And the hardware is the tap machine that will send the receipt to the cloud storage once a device is tapped or waved near it using NFC technology. A machine-learning algorithm will organize the stored data for easy and fast queries.

Hypothesized Business Model

The problems we are addressing are listed below:

- Expensive thermal paper rolls
- Exposure to BPA
- Storage and management of receipts
- Purchased return process with either lost or unreadable receipts
- Scan and transfer quotations and receipts to expense tracking software for small businesses

Some of the existing alternatives to help the above-listed problems are as follows:

- Email receipts
- Storing images of the receipts in the phone gallery
- Storing receipts physically
- Having an online or loyalty account with the store
- Manual entry into excel or journal for expense tracking

The proposed solution to thermal BPA receipts that are confusing to read with the item codes and short-forms is a digital receipt that is much simpler, detailed and illustrative. The digital receipt will be stored and accessed via smartphones conveniently. The main gist is to replace the receipt printings with transferring them to an organized phone application. It will be so easy and fast when the smartphone is waved near a receipt tap machine using NFC technology, similar to how Google pay and Apple pay works (tap pay).

Our unique value proposition includes a dedicated cloud database that lets users store their receipts automatically and does not consume their personal storage space. A search engine can query all the purchases made by the users and add custom filters like total amount spent on GST and HST or total amount spent on Lay's Original Chips. Lastly, it will save the customer's time for making digital copies manually and entering expenses on excel.

Our customer segment is apparel retail stores in St. John's, and people in the age group of 20-30 living in the greater St. John's area and purchasing apparel from retail stores. Because this is the sector where receipts are heavily used, and the customer persona is more technologically knowledgeable. Social media, website, AppStore, and Google Store are the channels we will use to market our product and services.

We are charging \$4,000 per customer (Vendors) as a subscription per month for the product and service combined for the revenue stream.

Feedback

The various customer surveys and interviews we conducted revealed that in the life of a day-to-day customer at retail stores and superstores, receipts are essential and need a backup for either returning item(s) or expense tracking. The customers did not state our hypothesized problem of exposure to the chemical BPA because of no awareness about the harm it carries. However, the customers mentioned that losing receipts was a problem.

Iterating from the feedback we received conducting the surveys and interviews, our business model needs to be revised to a B2B model. Where the POS system companies will be our direct customers providing the solution to retail stores under them. This is because on investigating, the retail stores informed they do not want to get into the implications of receipts and sales and prefer to leave to their contracted POS system provider. So our customer segment is no longer retail stores but are POS companies.

Having a focus group discussion from the Healthcare and Income Tax sectors, we learned that usually, people find it hard to keep the medical receipts for more than a year for both medical insurance and income tax filing purposes. They need digital receipts for both online filing processes and scanning the old paper receipts and formatting as per platform requirements is cumbersome. Therefore, we decided to launch a dedicated cloud for storage purposes and to design the online platform in such a way as to generate user-friendly digital receipts.

Benefits of using Easy Receipt mobile application

The reasons why a customer and a vendor should prefer Easy Receipt over thermal BPA coated receipts are as follows:

Customer Centric:

- Secure storage and management of receipts for returns and exchanges
- Cloud storage of all purchase receipts that will not compromise the user's phone storage
- Simple and intuitive expense tracking UI application (as shown in appendix A - MVP)

Vendor Centric:

- Secure storage and management of sales and exchanges
- Cloud storage of all purchases receipts
- Sales analysis and periodic trend generation

Impact of the new variant of Covid-19

What if retail stores shift the bulk of their operations to online sales?

This implication allows us to focus more on developing the software side first before investing heavily in the add-on device hardware for the POS systems.

If the stores are closed due to a lockdown and all the purchases are being done online. Easy receipt will integrate with your email to generate the receipt and delivery tracking on the phone application. This would again eliminate the receipts that come with the online orders. And automate the process of online order tracking checkups for all your orders under one application.

Viability and Market Potential

Square, a POS system company, charges its customers 2.65% per card-present transaction, 2.9% + 30 cents per paid invoice and online sale, 3.4% + 15 cents per manually entered transaction and \$0.10 for Interac chip & PIN or tap sales. That means merchants that have 1000 tap sales a day are charged \$36,500 per annum.

There are existing apps that give rewards and incentives to users that upload their receipts on them. This data is then sold to marketing companies and retail stores for ROI calculations and marketing strategies to improve sales. And when the government assesses the damage caused by BPA, there will be a ban put into motion for retail stores to use alternatives to thermal receipts, and this situation will further benefit Easy Receipt.

Business growth

At the moment, our customer segment is POS system companies in St. John's, and in the future, we aim to serve the retail stores directly by building our own POS systems. With the current business model of \$4,000 per customer and the average life expectancy of 5 years, we need to have 43 customers to reach our annual victory revenue of \$2.1MM. (See Appendix C for Bottom-up Financial Projections excel sheet)

Forward-Looking Forecast

Easy Receipt expects to make big leaps forward in the next five years in terms of target customers. The company will have a bigger reach, and the platform will aim at entering new markets such as sports, airlines, fast food restaurants, supermarkets, healthcare and income tax.

We will be expanding the data analytics and machine learning element of Easy Receipt to the sports and airline industry. It will aim to resolve customer identity, contextual communication, and personalized

advertisement to generate an advanced loyalty program that the brands will foster to improve their services.

The user interface application of Easy Receipt will aim to improve the post-purchase services and experience at fast-food restaurants and supermarkets while eliminating the production of thermal receipts and providing both parties with simple and clear expense tracking.

Also within the Healthcare and Income Tax sectors, for both medical insurance and income tax filing, we will provide long-term digital receipts with a dedicated cloud for storage. The mobile app will be designed in such a way as to generate user-friendly digital receipts as per the image requirements of both insurance and taxation platforms.

All in all, in 5 years, we aim to have at least 53 customers with an average of \$4000/month per customer. This will generate \$2.54MM annual revenue for Easy Receipt. (See Appendix B for 5-year traction roadmap)

References

- [1] “Ban on Retail Plastic Bags Coming into Effect in October,” *News Releases*, Sep. 02, 2020. <https://www.gov.nl.ca/releases/2020/eccm/0902n01/> (accessed Aug. 08, 2021).
- [2] E. and C. C. Canada, “Evaluation of the effectiveness of risk management measures for bisphenol A (BPA) – Ecological component,” Jul. 03, 2020. <https://www.canada.ca/en/environment-climate-change/services/evaluating-existing-substances/evaluation-risk-management-bpa.html> (accessed Aug. 08, 2021).
- [3] “Report: Skip the Slip - Environmental Costs & Human Health Risks of Paper Receipts - Climate Action.” <https://www.climateaction.org/news/report-skip-the-slip-environmental-costs-human-health-risks-of-paper-receipt> (accessed Aug. 08, 2021).

Appendix - A

MVP

This notification is shown when the user receives a receipt from the tap feature.

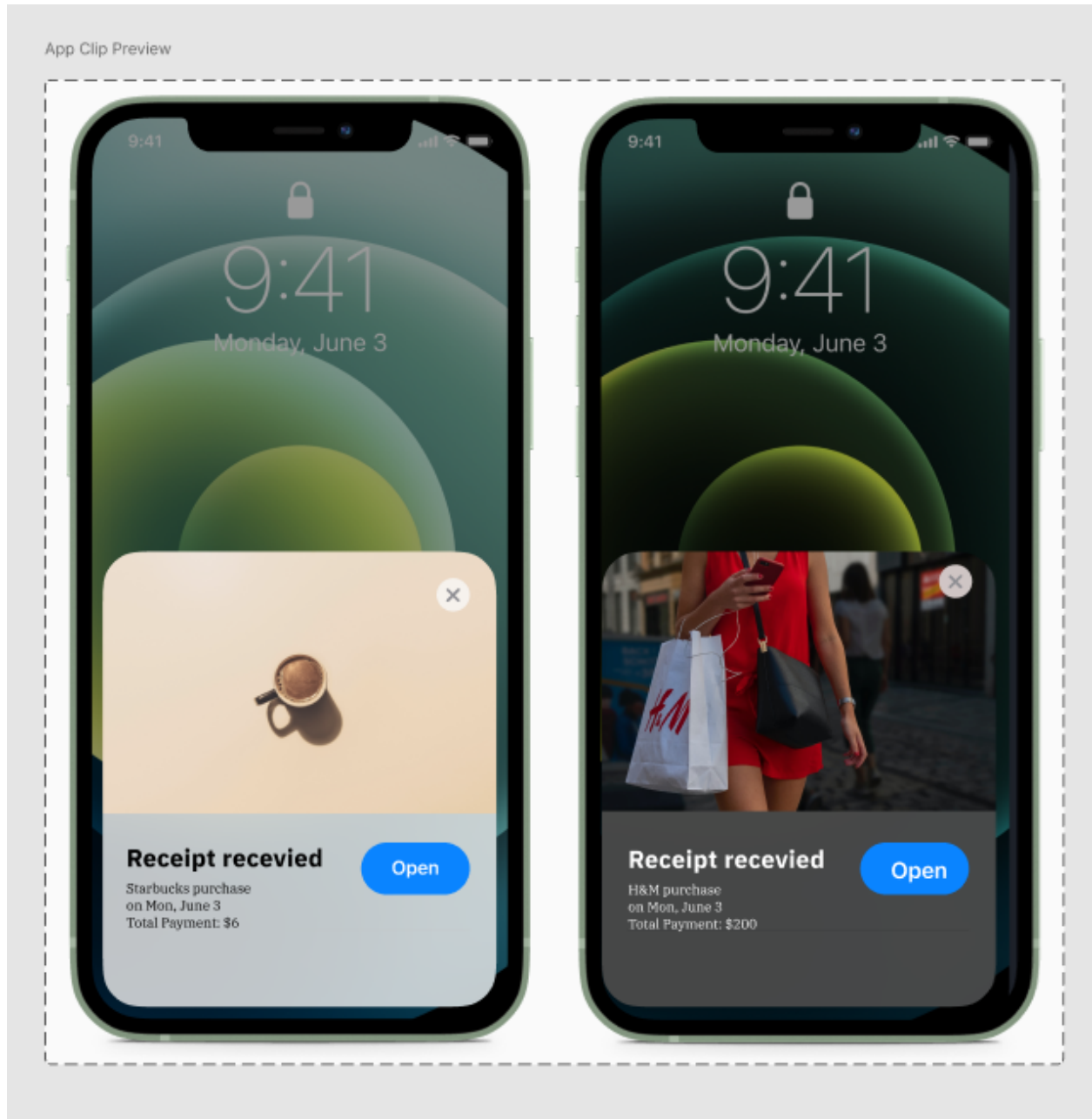


Figure 1: Notification mock-up when the phone is waved to collect the receipt

An example of the user interfaces for receipt storage.

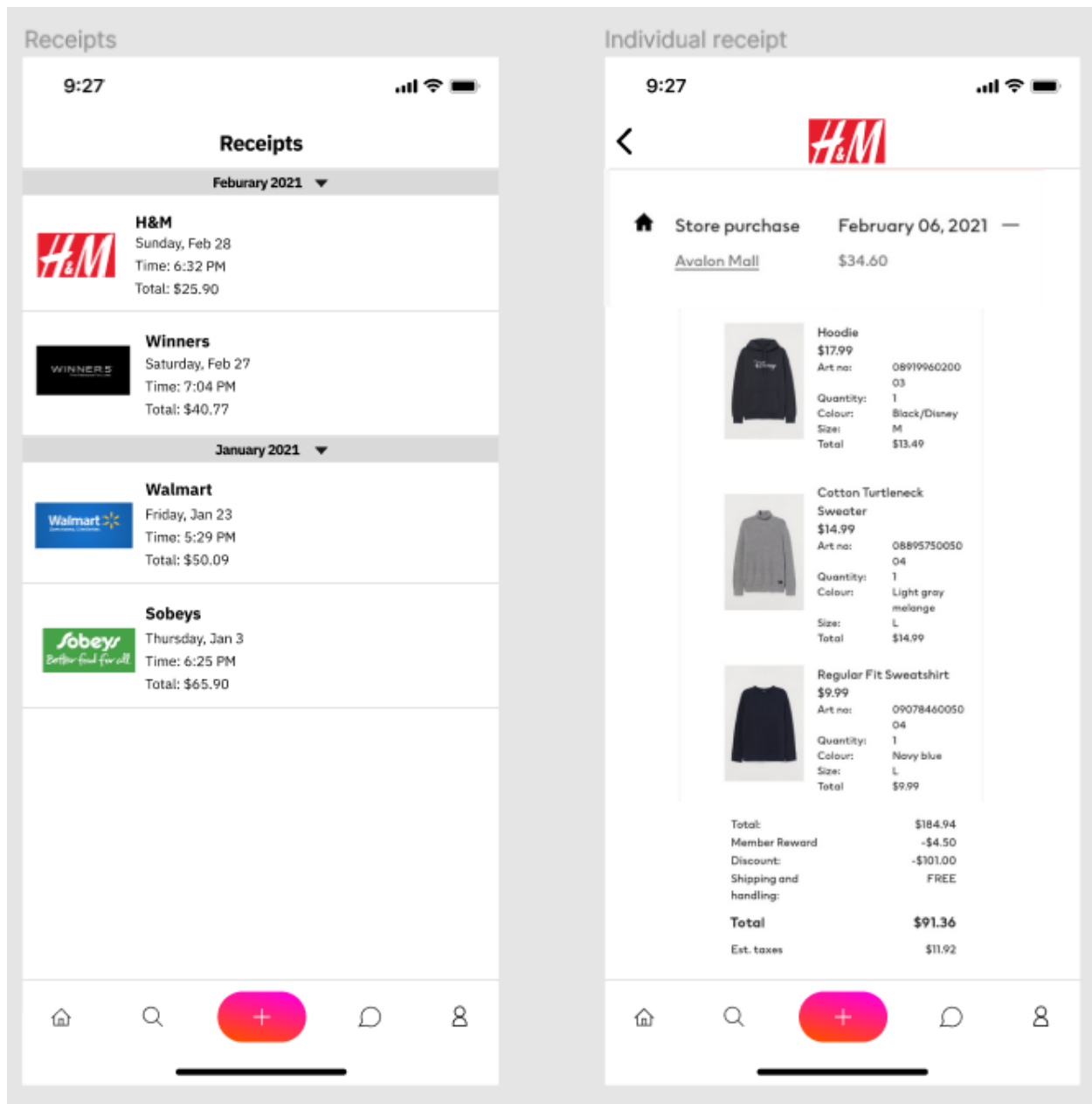


Figure 2: MVP user-interface for receipt repository

An example of the expense tracking page of the phone application.

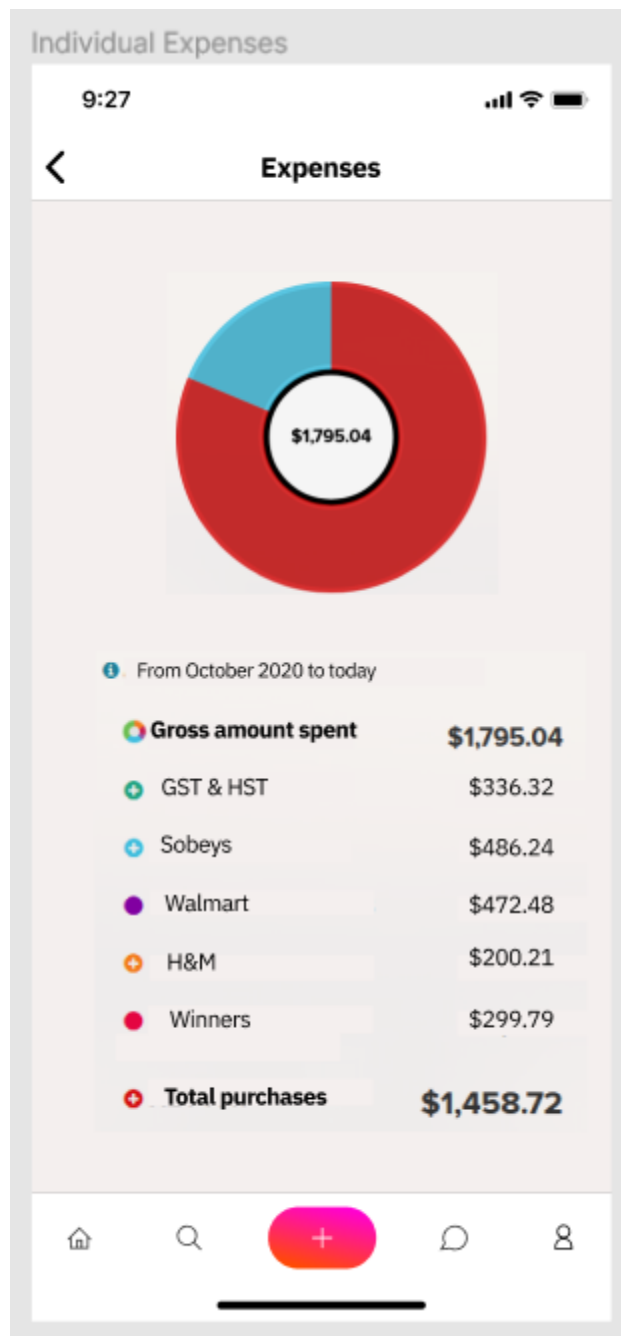


Figure 3: MVP expense tracking mock-up

Appendix - B

Direct Traction Roadmap - Customers

Click a point on the graph to update the corresponding factory.

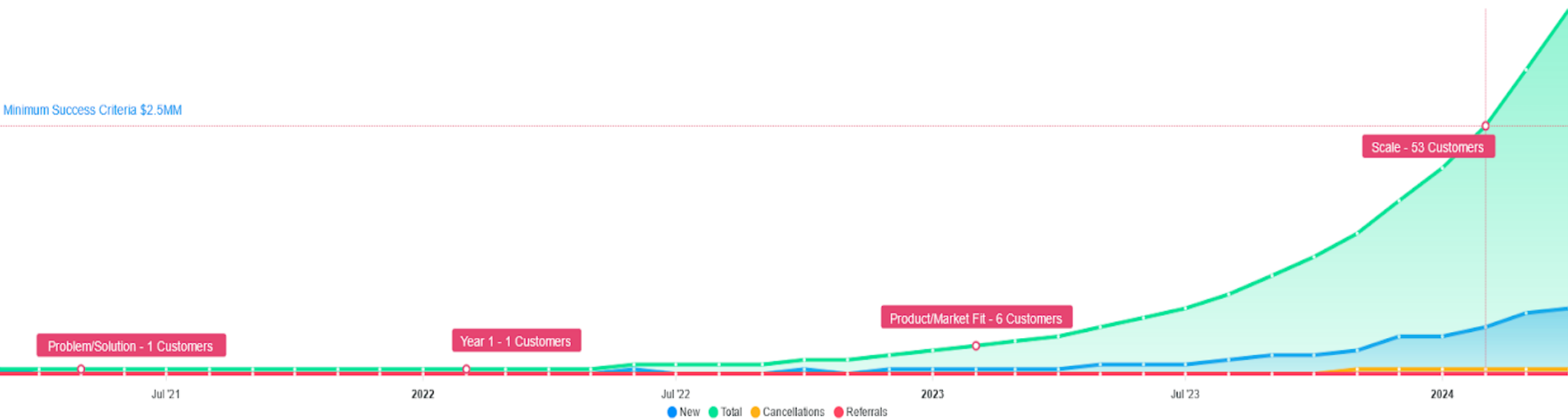


Figure 4: Five year road map

Appendix - C

Bottom-up financial projections

Annual Expenses				
Item	Units	Price/Unit/Year	Total Cost	
Software development team	3	60000	180000	
Marketing team	3	60000	180000	
AWS cloud	3	3000	9000	
App maintance	2	50000	100000	
Hardware expense	200	200	40000	
Advertisment	5000	50	250000	
Website	1	500	500	
		Subtotal	\$ 759,500	
		Misc % (taxes, legal, rent, etc.)	40%	
		Total	\$ 1,063,300	

Table 1: List of hypothesized annual expenses

Team Victory Declaration	
Annual Victory Revenue	\$ 2,126,600

Table 2: Aimed annual revenue, twice the expenses

Product Revenue	
Price	\$ 4,000
Lifetime Purchases/customer	60
Total Lifetime Value	\$ 240,000

Table 3: Total amount per customer per annum

Estimating Early Majority				
Diffusion of Innovation Ratios	Optimistic	Pessimistic	Average	
Early Adopter %	12.0%	5.0%	8.5%	
Early Majority %	26.0%	8.0%	17.0%	
EM to EA Ratio	2.17	1.60	2.00	
Annual Revenue	\$ 10,070,000	\$ 8,268,000	\$ 9,540,000	
Victory Revenue	\$ 2,126,600	\$ 2,126,600	\$ 2,126,600	
Difference	\$ 7,943,400	\$ 6,141,400	\$ 7,413,400	

Table 4: Hypothesized profit with different rate of early adopters and majority

Appendix - D

Ideal Customers

	Customer Segment 1	Customer Segment 2	Customer Segment 2
	Retail store customers	Cooperative education students	Muslims
Customer Emotions			
What is this segment afraid of?	Not getting refunds or exchanges on the required item	Not finding a Co-op	Practising the religion incorrectly
What frustrates this segment?	Long process of return if the receipt is unreadable or not present	Not being able to get any interviews	Wanting to go to Friday prayer but unaware of the venue and time
What overwhelms this segment?	The confusing code titles and numbers of the purchased items	Job requirements and cover letters	Communicating with strangers to inquire about any Muslim gatherings or events
What does this segment love?	Good and fast service	Co-op job offers	Practising the religion

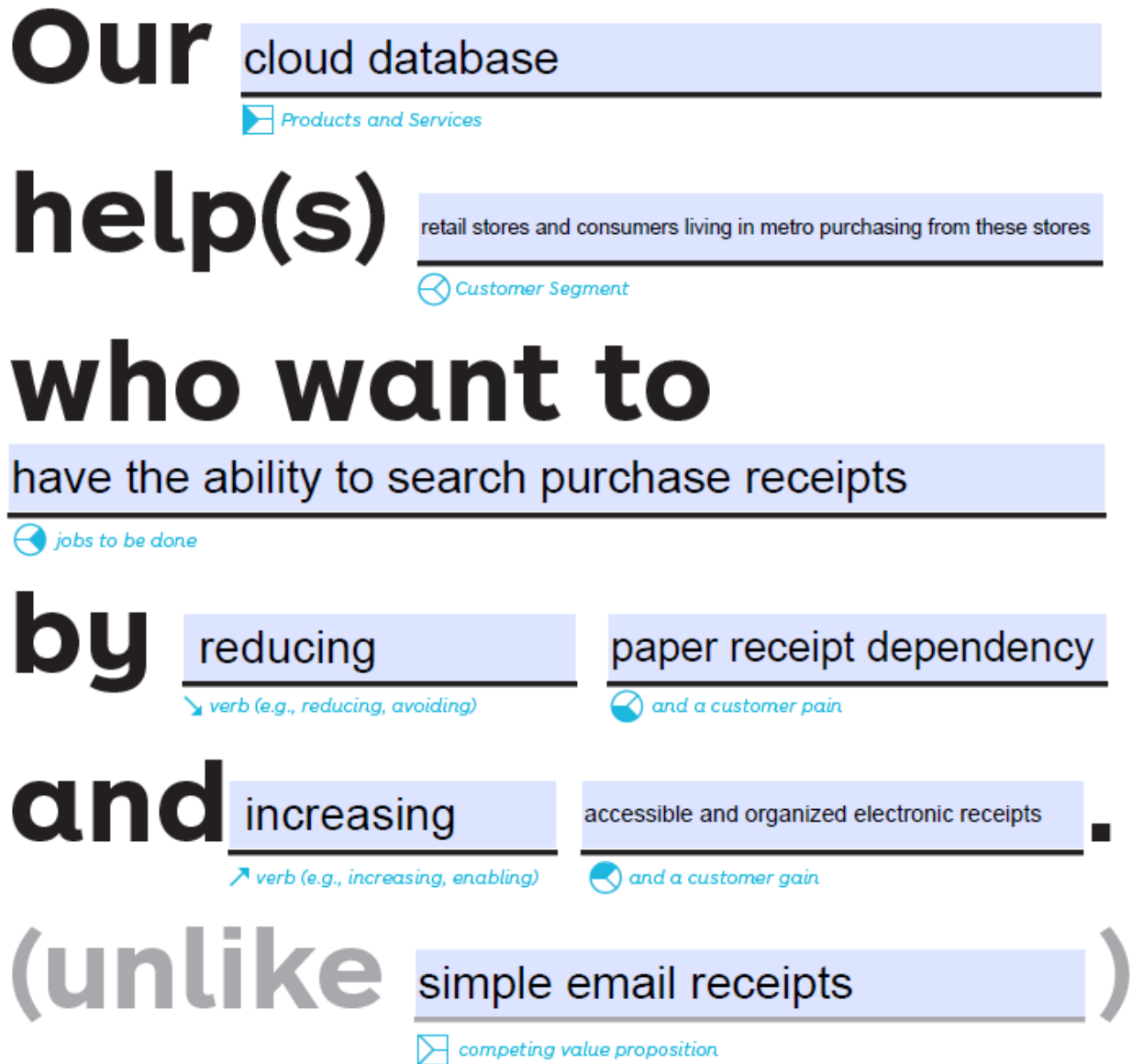
Circle the two emotions that are the most intense for your customers.

Put a star next to the two emotions you are most excited about.

<p>Pick one customer segment</p> <p>My ideal customers are: Retail store customers</p> <p>I want to help them: Better and more secure receipts.</p>
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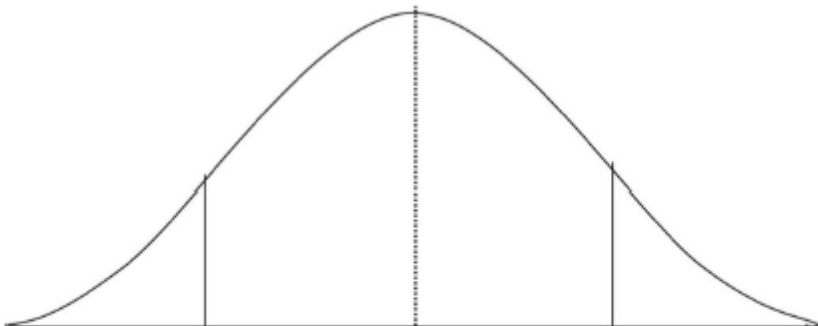
Appendix - E

Value Proposition Statement



Appendix - F

Early Adopters



	Early Adopters	Early Majority	Late Majority	Laggards
Problem	I can't find the store receipt for returning the item or for my expense tracking			
Have a problem	Yes	Yes	Yes	No
Know they have a problem	Yes	Yes	No	No
Actively seeking a solution	Yes	No	No	No
Segment	Purchasing items on a daily basis from retail stores	Purchasing items at retail stores	Stores paper receipts and manage excel sheets for expense tracking	Does not do much retail store purchases
Why?	Frustrated by the return process of items when receipts are lost	Does not worry about returns and don't do expense tracking	Has a system already in place	They don't have that many paper receipts to manage

Table 5: Team exercise for narrowing early adopters

Appendix - G

Value Proposition Canvas

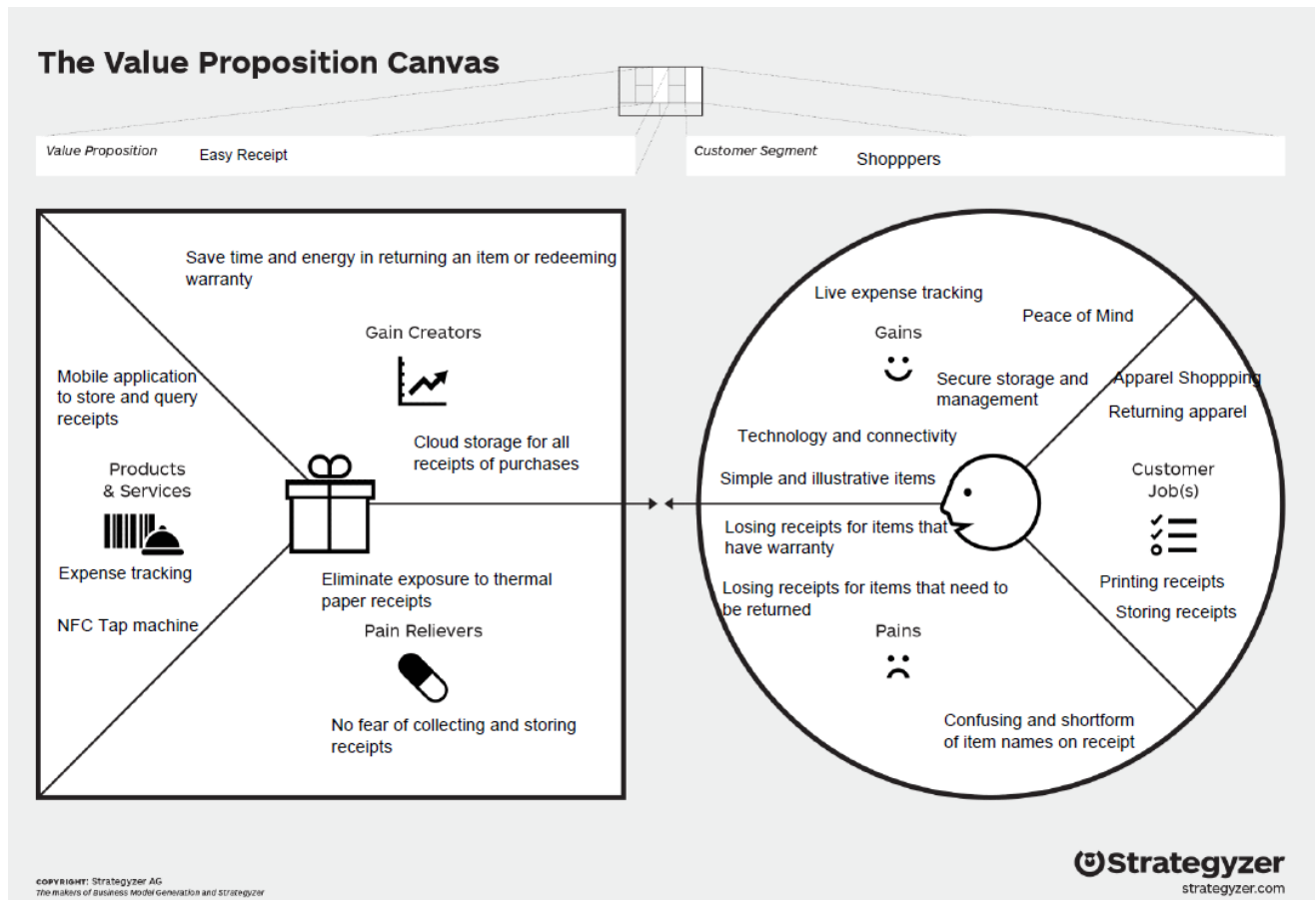


Figure 5: Team exercise for building value proposition canvas

Appendix - H

Business Model Canvas

The Business Model Canvas

Designed for: New Venture Creation
Designed by: Easy Receipt
Date: 8/8/2021
Version: 2

Key Partners <p>POS system companies</p> <p>PCB manufactures</p> <p>Hardware manufactures</p> <p>Shipping companies</p> <p>AWS</p> <p>GoogleStore and AppStore</p>	Key Activities <p>Software as a service</p> <p>Post sales service</p> <p>Marketing</p> <p>Networking</p>	Value Propositions <p>A cloud database storing your receipts for you</p> <p>A search engine for all your purchases</p> <p>Save time on making an electronic copy manually</p>	Customer Relationships <p>Incentives for first purchases</p> <p>Loyalty program</p> <p>Marketing of new advanced products</p> <p>Discounts on more products</p>	Customer Segments <p>POS system companies in St. John's</p> <p>People in the age group of 20-30 living in the greater St. John's area purchasing apparels from fashion stores</p>
Key Resources <p>Intellectual property</p> <p>POS machine</p> <p>Tap machine</p> <p>Machine Learning Algorithm</p>			Channels <p>Social media</p> <p>Website</p> <p>App Store and Google Play</p>	
Cost Structure <p>Cloud database (AWS or Google Cloud)</p> <p>App maintenance</p> <p>Marketing</p> <p>Website</p> <p>Hardware</p> <p>Employees</p> <p>Supply chain</p>			Revenue Streams <p>\$4000/month per vendor</p>	

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Figure 6: Version 2 Business Model Canvas of Easy Receipt