Deliverable F:

Business Model

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1. Introduction

The purpose of this document is to organize our product to place it on the market. In this document, our team discusses and chooses an appropriate business model and discusses why we chose each model and why we didn't choose others. The team then prepared a business model canvas based on various key assumptions. We then justified using data and statistics to reinforce our decisions.

2. Model Choice

The business models we align with best are the subscription and razor-blade models. We plan to market the app as a subscription and the beacons as a one-time buy-in fee. Using a subscription, we will have a consistent long term revenue stream and maximize the future value of our product. Charging our customers per beacon will allow our revenue to scale with the deployment size of beacons. We chose not to use the advertising model, as firstly it can be highly intrusive. Secondly, visually impaired people may have difficulty seeing visual advertisements, while auditory advertisements detract from navigation instructions' effectiveness. Finally, we do not need advertisements as a revenue stream since we already should attain enough revenue from our subscriptions and beacon sales.

3. Business Model Canvas

<table>
<tr><th>Key Partners</th><th>Key Activities</th><th>Value Proposition</th><th>Customer Relationships</th><th>Customer Segments</th></tr>
<tr><td rowspan="2">- Client (Person buying our service)
- User (Person using the service)
- Investors
- Electrical Component Suppliers (for beacon components)
- Firebase (Data storage, website hosting and Authentication)</td><td>- Identifying Points of Interest
- Optimizing Beacon Locations</td><td rowspan="2">- Allow easy navigation for anyone, especially visually impaired users
- Reduce customer uncertainty of navigating in an unfamiliar area
- Guide customers to desirable destinations</td><td>- Customer Service
- Social Media Presence
- Promotional Offers</td><td rowspan="2">- Businesses serving new customers daily that may not know the layout of their establishment (subway stations, malls, etc.)
- Businesses serving visually impaired customers</td></tr>
<tr><td>Key Resources
- Technology
- Pathfindr Beacons
- Pathfindr App</td><td>Channels
- Website
- Mobile app for Android
- Social Media
- Word of Mouth
- Direct Marketing</td></tr>
<tr><th colspan="3">Cost Structure</th><th colspan="2">Revenue Streams</th></tr>
<tr><td colspan="3">- Employee Salaries
- Development Fee
- App and Website Hosting Fees
- App Deployment Fee</td><td colspan="2">- Fee per beacon
- Yearly subscription to use the apps software
- Final Sale of Beacons</td></tr>
</table>

4. Assumption Justification

Our business model's first assumption is that all users will have phones equipped with Bluetooth and Wi-Fi. Without these capabilities, the users would not interact with our Bluetooth-based beacon system or get live location information through Wi-Fi. Additionally, we assume that reliable public Wi-Fi will be available throughout the service area so that users can connect to the internet and receive location information. This assumption is feasible, as 81% of Americans and 83% of Canadians own a smartphone[1][2].

Secondly, we are assuming that our client's business will serve many new users every day, many of which would not be familiar with the layout of the business' space. Our product will enable these users to navigate to the key points of interest throughout the space. Examples of these types of locations consist mainly of public areas such as shopping malls, libraries and airports. This assumption is true when considering an Australian study that found that people

with low familiarity with their surroundings spend almost three times looking for where they are trying to go or what they are doing[3].

The final assumption is that our customers will stay in business long enough to justify providing them with our services. This is resolved by making them pay an upfront fee for the beacons to reduce the chance of lost money. Therefore this assumption is highly feasible as profits can only be positive.

5. Conclusion

This document is an overview of the steps and actions the team would need to take to place our product on the market. In the future, if the team does decide that we are capable of putting our project on the market, then this document will serve as a reference point for future business models that might need to be created. Our team fully believes in the product we are creating and, if possible, would love to put our product on the market, but our current priority is to assist the Morisset Library patrons rather than becoming a startup.

6. References

[1] “Demographics of Mobile Device Ownership and Adoption in the United States,” *Pew Research Center: Internet, Science & Tech*, 05-Jun-2020. [Online]. Available: https://www.pewresearch.org/internet/fact-sheet/mobile/. [Accessed: 18-Oct-2020].

[2] P. by S. O'Dea and A. 20, “Smartphone users in Canada 2018-2024,” Statista, 20-Apr-2020. [Online]. Available:]https://www.statista.com/statistics/467190/forecast-of-smartphone-users-in-canada/. [Accessed: 18-Oct-2020].

[3] A. Cave, “Why people get lost in airports (and why you should holiday more often),” *Medium*, 07-Apr-2016. [Online]. Available: https://medium.com/@AndrewCave/intuitive-airport-navigation-two-insights-about-search-and-familiarity-3d7c04463f5e. [Accessed: 18-Oct-2020].