

LUGGAGE TRACKER

Vision

Our service Luggage Tracker provides luggage tracking for commuters at the same time collaborating with luggage manufacturing company and insurance company will help us boost the service revenue. The positioning statements, mentioned below, for our three set of customers explains the vision, soul and uniqueness of our product:

Travellers

For “Travellers”

Who are “not sure of their luggage arriving at the destination”

Our “Luggage tracker service”

That provides “provides notification to the commuters on their phone/computer regarding where the luggage is traveling real-time”

Unlike “current solutions like LugLoc and Trackdot which uses GSM and Bluetooth tracking”

We offer a solution based on the collaboration with the airport security team, RFID, E-Mail and GSM text message; which will be more reliable and reduce the chances of the luggage being lost.”

Luggage manufacturing company

For “Luggage manufacturing company”

Who “sell hundreds of travel bags every year ”

Our “Luggage tracker service ”

That provides the “facility to track your luggage real time”

Unlike “some inbuilt tracker bags”

We offer a “service using RFID which will come as pre attached to the Travel bag thereby enhancing the Luggage manufacturer’s product ”

Insurance Companies

For “Insurance Companies”

Who “lose money on lost luggage claims ”

Our “Luggage tracker service ”

That provides the “facility to track your luggage real time”

Unlike “existing solutions”

We offer a “service using RFID which will ease the task of tracking your luggage during luggage misplacement hence reduce the luggage claims made by customers. Thus the insurance company will have lower claim rates.”

Motivation

Customer Segments

On a high level, we have three target segments as below:

- **Travellers:**Our product mainly targets any passenger traveling by airplane. Passengers travelling in economic & business class both will be our primary focus. Special attention for first time airplane travellers will be looked into. To validate this customer segment hypotheses a series of questions were asked to all segments of population (right from Students to Artists, to first time travellers to frequent business travellers). From questions like what measures do you take to avoid losing your luggage during your travel? If you have ever lost your baggage during your trip or know someone who did, what problems did you/they have to face in that situation? After you check-in your bags, how confident are you that your luggage will arrive at the destination?, we concluded that the common practice our interviewees follow to avoid losing their luggage is to have a unique name tag, to do an early check in, to keep one's itinerary and contact inform inside the bag, keep photos of you bag to make the identification and clamming of the luggage easy, in case of any expensive articles will prefer to ship the article rather than carry it along the journey. Few have had a bad experience when they lost their luggage, there was loss of precious time, lot of paperwork was involved, there is a panic among the travelers as they are left with no belongings, few of them experiences missing articles from their luggage even some of them were damaged. With the feedback it helped us get a clear focus on the target segment for our product.
- **Luggage manufacturing company:** Our service collaborates with the luggage manufacturing companies to provide an inbuilt RFID tracker in the Travel bags. This not only benefits us but it gives a boost to the Luggage manufacturers to upgrade their product and attract customers.
- **Insurance Companies :** Our service will offer a complimentary travel insurance each time you opt for it. Insurance company will be one of our major customer, profit from our services goes both ways. Better tracking leads to lesser claims in lost luggage insurances and the company loses less money.

Unmet Needs

From our detailed questionnaire we found out that travellers at some point of time have faced inconvenience in their life due to their luggage being misplaced, lost, damaged etc. It took minimum of at least 3 working days to get back the luggage. Due to this travellers at point had to miss out on their important events like a meeting or a family reunion cause of the unfortunate event. A strong desire was expressed by these set of passengers to have a product where they could locate their luggage with ease. Even passengers who had not experienced the unfortunate event of luggage being misplaced would like to have a product to assure the travellers about their luggage.

Existing Solutions

There are quite a few products in the market that track luggage by using GPS, mobile

networks, Bluetooth or Wi-Fi. LugLoc offers a Mobile/GSM based luggage tracker that can help you keep track of your luggage. Trakdot is another similar device used to track your luggage. BagTrack, Waldo, Versa, Horizn are some of the other existing solutions.

Differentiation

Our device is using an unique technology RFID which hasn't been used yet by any other device. We are already a step ahead to implement this product on a local scale and with the emerging need for better tracking and the constant push by the IATA and SITA to implement the RFID technology in the Airports to replace Barcode is going to be a positive thing for us in coming years. We offer the best of the tracking in the cheapest possible rates which comes in handy with the insurance we will provide. Knowing that we have a wide customer segment. Our market potential is really huge as there are almost 4 Billion passengers travelling every year. Competitors for the luggage locator are just few in the market also they haven't proved very effective and accurate. Aviation industry one of the biggest in the world, would be a huge promoter and facilitator for Luggage tracker

Why Now?

Losing your baggage is a nightmare. It happens to the best of us and have already spent a lot of money to recover the items already lost. The urge to tap on the upcoming state of art technology and make it easy for our customers is our goal. The board of the International Air Transport Association(IATA) also voted to develop a standard within one year for using RFID to track bags. The industry body aims to start rolling the technology out globally in 2020. This will enable the customer to have a hassle free travel and not the constant worry of losing their Luggage. This is the area we are constantly working on to develop a tracking system which will enable real time tracking.

Use Cases

Businessman

- luggage was placed correctly

I learned the hard way never to put my home address on the outside of my suitcase. I was on a three-month work assignment to China and my huge suitcase was lost. I checked with the airlines, apparently the suitcase was not on the plane. After I encountered this issue, I download luggage tracker app and install the device on my traveling suitcase. I create an account and input the unique id of the device to make sure they are linked together. Later, I need to flight to France. When I was boarding, I clicked ‘track my luggage’ on the app, entered the airline number to the app, I received an email and a text message that says “ your luggage is already on the plane, wish you enjoy your trip!” . By receiving these messages, I know that my suitcase was correctly placed on the plane.

- luggage was placed incorrectly

After I boarded on the plane, I clicked ‘track my luggage’ on the app, entered airline number, then I received an email and a text that says “your luggage is on the wrong transportation car, please check with the airline!” I contacted the crew member, so they checked the luggage transaction and made sure my suitcase was placed correctly on the plane.

Luggage company

Sales department take ‘better way to have eyes on your luggage’ as an advertisement to try to attract customers. They bought luggage tracker service and install the device on luggages, so when they sold the luggage, they ask customer to download app, create an account and link the account with the bag. By doing this, more customer come to buy the luggage, the luggage company is able to increase the sales.

Market Size

Potential people:

- Business travelling 458.9 million per year
- Tourists travelling 1.75 billion per year
- Average air travels per year
 - 741.6 million domestic trips
 - 107.7 International trips (as of 2017)

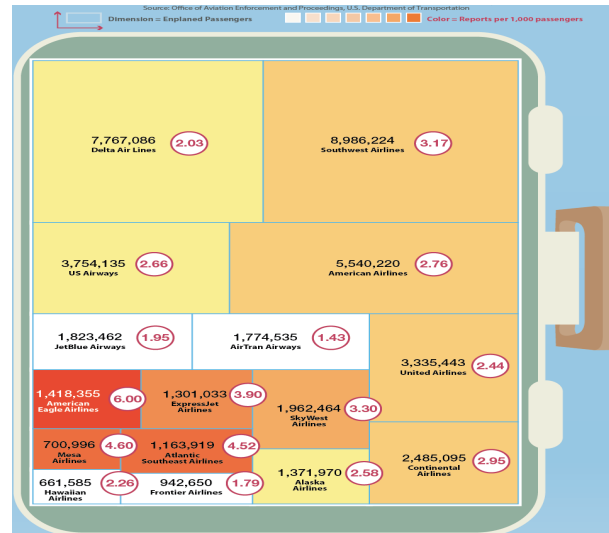


Recovering and returning lost bag:

- Recovering lost baggage cost the aviation company around 2.1bn in 2016
- According to current statistics, around 5.6 bags are lost/delayed in 1000, which means roughly 1M bags are lost or had issues. The second table shows the number of incidents per airline in the oas

Market potential:

- U.S. residents took 2.6 million person-trips for business and leisure in a day in 2017



Caveats / Risks / Key Dependencies

What are possible failure modes? For example:

- There is always a very small percentage of risk that our business model will fail as our customer survey says that majority of the people are fairly confident that their luggage will arrive at the destination. Also it is very hard for people to realize the need for (real-time) luggage tracking.
- Privacy concerns?: There are no privacy concerns as all the tracking is done and ends within the airports.
- Legal/patent risks?: There is are no Legal/patent risks with our product which uses RFID as a tag to keep track of the customers luggage.
- Piracy concerns?: Our product does have a piracy concerns on subscriptions as there are applications where subscription are pirated, but the tracking part of our product will be secure.
- Interdependencies with key internal systems/processes/operations?: It is Mandatory for the customers to buy the RFID tag which is very cheap for the entire systems to work. (If the RFID device is absent the entire system will fail.)
- Availability of required 3rd-party complements?: As we are taking care of both front end and back end of the tracking service there are no 3rd-party involved.

Competitive/Strategic Considerations

During our initial brainstorming for the idea we did a complete research of similar products in the market. There are many apps out there which promise to “track” your luggage but they often fail because of external factors like bluetooth range, internet not being available or no cellphone connection etc. All these apps have dependencies that are not always available and hence makes them unreliable.

Our strategy is to start providing the service as a add-on service in collaboration with the local airport to all the travellers and try out the service by providing the first tracking free of cost. We would want to work with airport authorities for more secure and reliable updates. Eventually we want to collaborate with baggage manufacturers to embed our tracking devices inside the luggage as well. This would further enable our service to become a widely used and a must-have service that people would miss when it is not there.

Go/No Go Recommendation

Based on our survey we find that this is a feature that people “don’t know that they need”. They would love to be able to track their luggage and many have tried other services hoping to get this kind of result. Our team is insisting a **GO!**

Team Members

1. Name: Jui; e-mail: ashinkar.j@husky.neu.edu; Ph.no: 8579305626
2. Name: Hemanth; e-mail: lakshmanraju.h@husky.neu.edu; Ph.no: 8572501035
3. Name: Prajwal; e-mail: parlawar.p@husky.neu.edu; Ph. no.:6178202752
4. Name: Vinayaka; e-mail: uppangala.v@husky.neu.edu; Ph.no: 8575447896
5. Name: Yinyin; e-mail: ye.yin@husky.neu.edu; Ph.no.:8572727360

References :

<https://www.ustravel.org/research/travel-facts-and-figures>

<https://www.rfidjournal.com>
<https://www.creditdonkey.com/lost-luggage.html>

Survey Summary:

- Many people have faced inconvenience in their life due to their luggage being misplaced, lost, damaged etc at some point in their life.
- It took minimum of at least 3 working days to get back the luggage.
- Due to this, travellers had to miss out on their important events like a meeting or a family reunion cause of the unfortunate event.
- A strong desire was expressed by these set of travellers to have a product where they could locate their luggage with ease.
- Even passengers who had not experienced the unfortunate event of luggage being misplaced would like to have a product to assure the travellers about their luggage.

Number of times traveled in a year vs Number of people interviewed count

