

# A PASSENGER'S EXPERIENCE AT THE AIRPORT

## AN EXPLORATIVE STUDY OF A ONE-APP SOLUTION WITH SPECIAL FOCUS ON DECENTRALISED IDENTITY WALLETS AS A MEAN TO CREATE A SEAMLESS EXPERIENCE.

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### ABSTRACT

This research aims to explore ways to enhance the passenger's experience at the airport. In collaboration with Future Travel Experience, the project investigates the potential of using a single app, instead of having to use dedicated apps for different tasks, which provides an end-to-end assistance while travelling. Whilst also placing a special focus on decentralised identity (DIDs) wallets as a mean to decrease the time taken at different airport checkpoints and making the journey frictionless for the passenger. The project follows the principles of User centred design, right from the beginning of identifying the needs right up to the point of evaluation of designs. The research discusses the state of the art and explains the current standing of airport experience. User needs and wants are gathered by conducting in-depth interviews and online survey and presented by making user personas. To better understand the problem auto-ethnographic research was conducted and customer journey map along with service blueprint was produced to get a thorough understanding of pain points. Based on the data gathered, prototypes were made of the one app solution. Which were then validated using LEGO serious play method, tree testing and A/B testing.

### BACKGROUND & INTRODUCTION

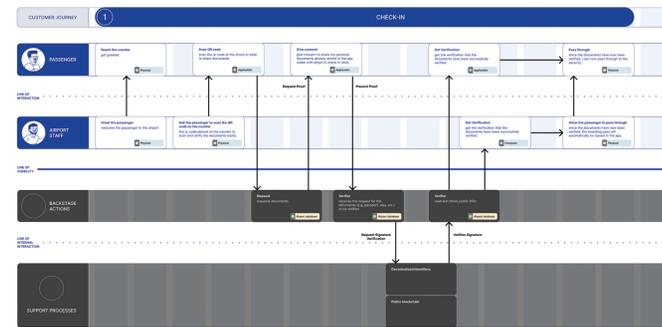
In recent past, the airline experience of passengers has seen a decline in it. What used to be something many would look forward to, now dread (Clemes et al., 2017). Over a period, many factors are responsible for changing the way things work in the aviation industry. Events like September 11, 2001, attacks have played a major role in shaping the current experience of an airline passenger (Gkritza, Niemeier and Mannering, 2006). It has led to raised security levels at every touchpoint of the user's journey, which in turn has created nuisances for the people travelling. The time spent waiting by a customer has a direct impact on their satisfaction from the service being provided (Davis and Heineke, 1998).

New technologies like decentralised Identity wallets have the potential to be used in airline industry to enhance the passenger's experience by making the process quicker and more efficient. Leading industry experts also believe the next logical step in enhancing the passenger's experience is development of one universal app for all the airports and its checkpoints.

### DESIGN



Home screen shows progress as the passenger moves through the airport checkpoints. It also pops up a clickable icon for wallet/boarding pass to scan and verify the documents when required in the journey.



SERVICE BLUEPRINT



STORYBOARD



DIDS

USER INTERFACE

### STUDY METHODOLOGY

#### USER INTERVIEWS

User interviews were conducted to understand different types of travelers and their needs. It involved 2 business travelers and 2 leisure travelers.

#### ONLINE SURVEY

The aim of online survey was to gather both quantitative and qualitative data. A total of 41 participants responded.

The respondents age division:

- o Age 18-24: 59%
- o Age 25-34: 34%
- o Age 35-44: 5%
- o Age 45+: 2%

#### AUTO-ETHNOGRAPHY

It is a form of qualitative research where the researchers put themselves in the shoes of the user as to better understand the user requirements. Therefore, following routes were travelled upon whilst taking notes and pictures.

- o London Gatwick Airport to Islamabad Intl. Airport
- o Islamabad Intl. Airport to London Heathrow Airport

#### LEGO SERIOUS PLAY

LEGO SERIOUS PLAY is a method that enables participants in the research to creatively think and solve problems. This method was used for scenario testing and usability testing.

#### TREE TESTING

It was used to assess the labeling, flow and structure of information architecture.

#### A/B TESTING

It was used to compare two versions of the 'wallet' screen's UI, as to determine which one users preferred more.

### RESEARCH RESULTS

9 out of 10 participants (90%) are ok with storing their personal documents on the app, the same amount (90%) says they will use such an app that assists them. (Survey)



CJM made through the data extracted from interviews, survey and auto-ethnography.



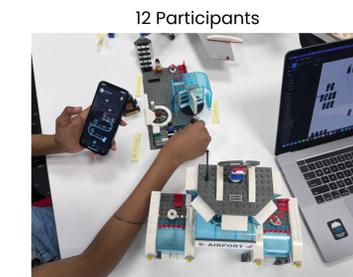
CUSTOMER JOURNEY MAP

User personas made from analysing the interview data.

USER PERSONAS

### TESTING & EVALUATION

During the study, a LEGO airport set was laid out on the table. All the checkpoints in the airport were labeled accordingly. The participants (total 12) were asked to navigate through the airport, one by one, using the LEGO figures along with the app designed. This roleplaying method allowed to gain direct insights from real users of how they would react in similar situation in real life.



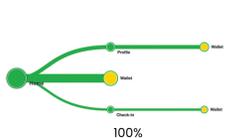
LEGO SERIOUS PLAY

48 Participants



A/B TESTING

10 Participants



TREE TESTING

### CONCLUSIONS & FUTURE WORK

This project was an exploration of validity of two things. First, the 'one app solution', which involves providing assistance to the passenger from start of the journey right up till the end. Second, the identity wallets, which allow the user to verify personal documents with just a click of a button. If implemented in airports, it can enhance the passenger's experience by significantly reducing the frictions in the journey.

This research project can act as a springboard to future study, especially on the implications of implementing such a system in a highly regulated industry. Furthermore, future work can be done on understanding the technicalities and logistics required to implement such a solution.