CT70A3100 - Service Design

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GROUP REPORT 1 - Lahti City Bikes Mankeli

Group 10

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Artificial Intelligence Statement

No content generated by AI tools has been presented as our own work.

About the Service

Lahti City Bikes Mankeli is a bike-sharing service that offers citizens of Lahti a convenient way to get around the city. The service is provided by Mankeli, which focuses on enabling mobility for local residents. By offering a fleet of e-bikes for temporary rental, the service aims to enhance accessibility and make it easier for users to reach various destinations within the city.

The core service offering is centered on providing access to e-bikes for short-term use. The emphasis is on access rather than ownership, giving people the flexibility to rent an e-bike whenever they need one without the commitment of purchasing a bike. This service is purely a rental offering, without any associated products for sale, making it a "pure service" rather than a hybrid of products and services.

As a digitalized service, Mankeli uses a mobile app called Freebike to facilitate the rental process. Through the app, customers can easily rent an e-bike, receive customer support, and return the bike when they're done. This digital component streamlines the service, allowing for a fully integrated user experience. Before digitization, the rental process could also be completed by simply tapping a bank card on the bike, providing a manual option alongside the digital one.

The Service Safari

For the Service Safari, we documented our experience primarily through a comprehensive walkthrough. This involved following the entire process, from registering in the mobile app to using the e-bikes and eventually returning them. During the walkthrough, we assessed the overall usability and user experience, noting both the positive aspects and any issues encountered. To complement our written observations, we captured photos and screenshots throughout the process, illustrating each step from the beginning of the rental to the completion of the ride.

Our group took a collaborative approach, with everyone contributing equally. Each member participated in trying out the app, logging in, taking pictures, and testing the service. This collective effort ensured that we gathered diverse perspectives, as different members might notice varying aspects of the experience.

What was your process of using the service?

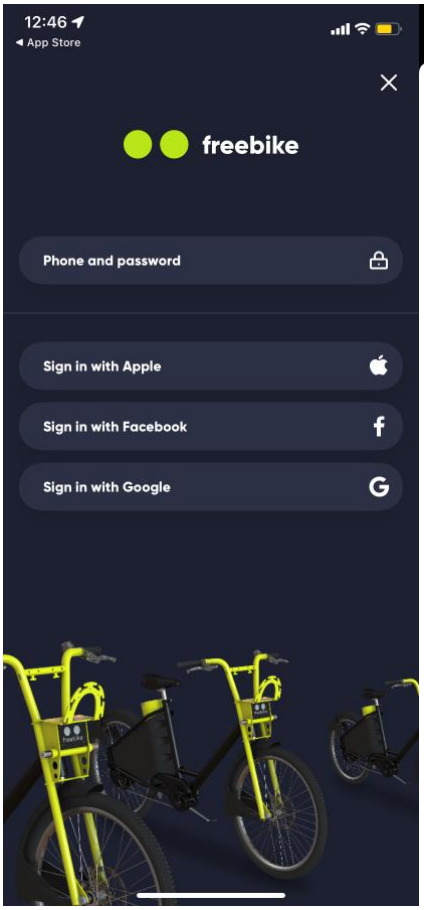
The process of using the service was as follows:

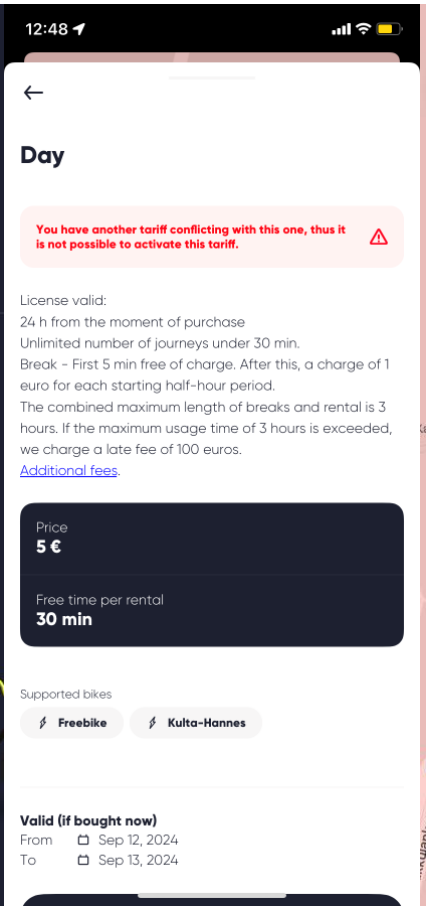
1. Finding the Freebike mobile app in the Android or iOS app store and downloading it.
2. Going through a quick tutorial on the use of the service offered by the mobile app.
3. Registering for the app through Google, Facebook, or for iOS phones with Apple.
4. Taking a look at the available subscriptions for bike use – on-demand, daily, weekly, monthly, annually.
5. Selecting the subscription that was the best fit for the safari – daily subscription.
6. Inputting bank card details in a third-party banking payment solution in order to purchase the daily subscription.
7. After obtaining the daily subscription, navigating to the nearest bike station using the built-in map in the mobile app showing all the e-bike locations.
8. Finding the exact location of the bike station.
9. Using the "Start Ride" function when a suitable bike is found by inputting its designated number.
10. Hopping on the bike and starting to use it.
11. Arriving at the destination bike station shown on the mobile map and on the bike's digital screen.
12. Parking the bike appropriately at the destination station.
13. Pressing "Stop Ride" to end the e-bike rental.

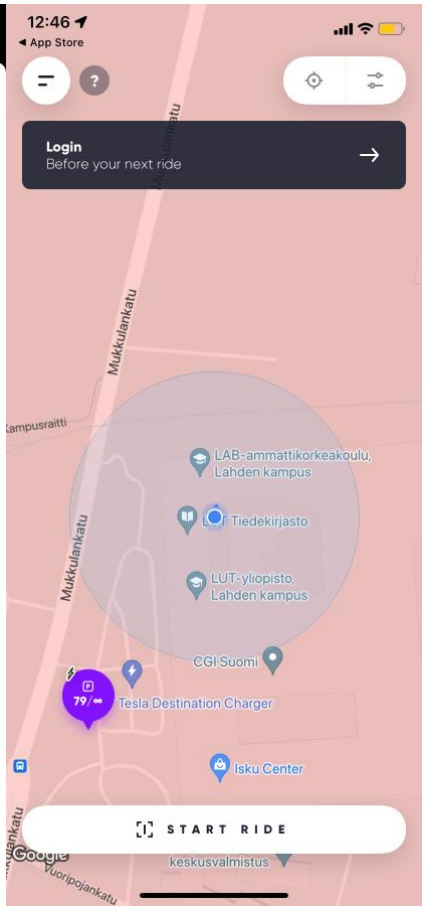
We considered ourselves skilled users during the safari. The app was straightforward and user-friendly, allowing us to quickly get started with renting the e-bikes. The ease with which we

navigated the service and accessed the e-bikes suggests that we possessed the skills needed to use the app efficiently.

Add key documentation from your service safari with captions (e.g. choose pictures or screenshots you took, and write short explanatory text to accompany them) – remember to document how you started end ended your journey

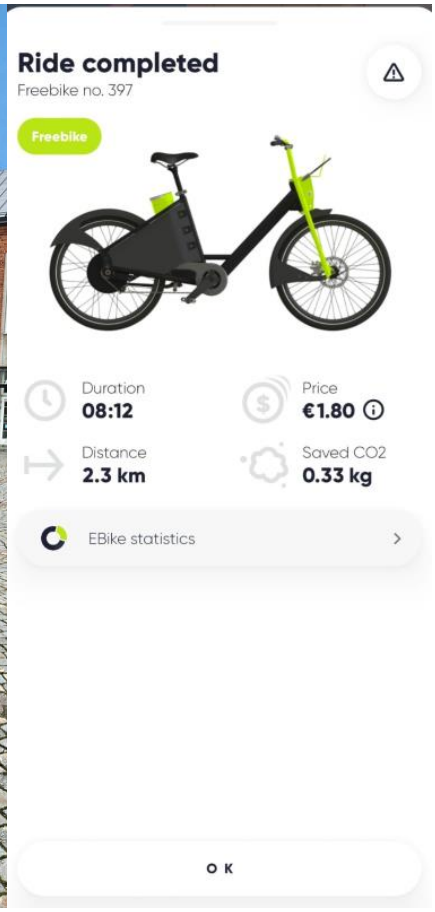






1. Registration screen in the mobile app.	2. Choosing a daily subscription for purchase.	3. Locating the closest station on the map.

4. At the campus bike station.	5. Riding the bike.	6. Stopping at Ankkuri.



7. Visiting Sibelius Hall.	8. Taking the bike from a station nearby.	9. Returning to the campus.

Highlight what worked well and what didn't work well

What worked well	What didn't work well
• Easy registration (single sign on options). • Smooth and appealing-looking app. • Good introduction and instructions for the service. • The e-bikes have an informational display that shows the travel speed and distance to the nearest station, which is very helpful in avoiding phone use while biking. • The tap-to-go with the bank card on the bike itself works really well in case there is trouble with the app.	• Confusing definition of usage time: 30 minutes free for subscription users, but then you need to pay, and if 3 hours are exceeded, you are fined. • Does the 30-minute time limit reset when the bike is switched? • In the iOS app store, there are two mobile app versions, which can make it confusing to choose the appropriate version. • When selecting the bike, there is an option between e-bike and Freebike, which causes confusion about what

• Easy and fast activation of the e-bike, with no delay at all. • Easy to ride and tackle hills because the bikes are electric and provide a boost when pedaling. • Convenient location of the stations, close to each other.	they are and which one is included in the subscription. • The app can show a message that the bike cannot be returned because you are not located at a station. This can be especially troublesome for places with a bad GPS signal or for phones that do not have a good GPS receiver. • Not all bikes stop the rental after three continuous braking instances, which raises concerns about what would happen if the phone battery dies midway through the rental. • Some of the bikes are a bit broken, and they are very heavy to lift.

Analysis of the Service

Who are the key actors (people, things and technologies, organisations) involved in providing, delivering, and using this service?

- The key actors in this service are the following:
  - Mankeli
  - Freebike
  - City of Lahti
  - Banking Service
  - Users
  - Energy Companies
  - Bike Maintainers
  - Bike Manufactures
  - Bike Delivery Service
  - Local Businesses

Which actors do you directly interact with?

- As users, we directly interact with:
  - Mankeli, as they are the ones providing the service and the bikes.
  - Freebike, as they provide the interface for locating the bikes and starting and ending the lease of them.
  - Banking Service – to purchase the subscription that enables bikes to be used.

How are the actors involved in co-creating value?

- **Mankeli** provides the bikes and the entire system of bike allocation, bike digital assets, maintenance, etc.
- **Freebike** provides the user interface for using the Mankeli bikes through a mobile app.
- **City of Lahti** arranges the locations for placing the bike stations for rentals and guides Mankeli to adhere to the city's municipal and Finnish legislation.
- **Banking Service** enables users to purchase subscriptions and use the on-demand tap-and-go functionality on the bikes.
- **Users** provide the demand for the service, offer feedback, and drive the need to use bikes for sustainable city travel.
- **Energy Companies** provide electricity to charge the batteries of the e-bikes.

- **Bike Maintainers** ensure that there are enough bikes to support all users without incurring expenses in buying new bikes if a bike breaks.
- **Bike Manufacturers** sell the bikes to Mankeli so they can be modified and put up for use.
- **Bike Delivery Service** responsible for allocating bikes to the service points and bringing them back to the main facility to charge them.
- **Local Businesses** provide potential locations for new bike stations as they are key gathering places for people.

What resources skills or knowledge are they each bringing to the service?

- **Mankeli:** the main service owners, overseeing and collaborating with all other actors to sustain the business and revenue.
- **Freebike:** the actor that digitized the service by providing a mobile app, a core touchpoint for users.
- **City of Lahti:** has insights and knowledge on legal placement of bike stations, understanding the local legislation that Mankeli must follow to comply with laws.
- **Banking Service:** has knowledge on processing user payments to Mankeli as the beneficiary.
- **Users:** possess knowledge of the positives and negatives of using the service, providing feedback.
- **Energy Companies:** have the skills and knowledge to provide electricity to end-users, one of them being Mankeli.
- **Bike Maintainers:** possess skills and knowledge to repair bikes for use, identifying common issues and parts that frequently break.
- **Bike Delivery Service:** has skills and knowledge of bike stations where the bikes need to be delivered first and in what quantity.
- **Local Businesses:** have knowledge of visitor numbers, enabling them to suggest a station near their business if visitor numbers could benefit Mankeli.

What is the key interaction space for this service?

- The main interaction space for this service is definitely the Freebike app. It enables users to utilize the Mankeli bike service by purchasing subscriptions or on-demand usage, viewing bike station locations, checking the bike quantity at stations, starting and stopping the lease period. Additionally, the app allows users to contact Mankeli's customer support if assistance is needed. In essence, the Freebike app empowers users to fully utilize and track the Mankeli bike service.

- Another interaction space for the Mankeli bike service is the bike stations themselves. For example, if a user does not have the app, they can start using the bike by tapping their card. The bikes themselves allow users to see the nearest stations and, essentially, by pressing the brakes, can stop the usage of the service. So essentially, another interaction space is the bike stations and the bikes themselves.

What happens in the Relationship, Matching, and Service layers of the interaction space?

- **Relationship Layer –** In the interaction spaces of the relationship layer, customers develop a relationship with the Mankeli bike service based on their experience with it and the interactions the user had through the Freebike mobile application. The same goes for the second interaction space; the user develops their relationship towards the Mankeli bike service as good or bad depending on the experience.
- **Matching Layer –** In the interaction spaces of the matching layer, the Mankeli bike service simplifies its broad experience and all the operational complexity through the Freebike app so that the customer does not feel this operational complexity. For the user, it involves simple data inputs and bike utilization without any worries. The Mankeli bike service matches the expertise of the users through the Freebike app.
- **Service Layer –** In the service layer of the interaction space, users interact with the Freebike app and the bikes themselves. This is where the relationship layer and the matching layer determine whether the user's experience with the Mankeli bikes is good and if value co-creation occurs.

Are Relationship value, Matching value, Service value high or low in your experience of the service and according to the service safari scenario?

- Relationship value, in our opinion, is high because there was nothing that could have sabotaged the relationship. The received service was good, fluent, and easy, so the relationship value for us was high.
- Matching value, in our opinion, was also high because using the Freebike app for the Mankeli bike service really reduces the complexity behind the service to a few taps on the phone screen, and the bike can be activated and deactivated. The Mankeli bike service truly matches the user, and the match is successful if the user does not have to give a thought to using the service.
- Service value is high, in our opinion, because the relationship value and matching values were also high for us. The service did exactly what we intended in an easy fashion.

What was your personal and subjective perception of the service? Did the value proposition match your needs?

- Our personal and subjective perception of the service was really good and pleasant because the value proposition that was mentioned was truly delivered – a smooth and sustainable service on how to transport yourself from one place in Lahti to another seamlessly.

Do a little online search: Do you find information on whether the service providers are using IaaS, PaaS, or SaaS for the technology used in the service provision?

We could not find any information on whether the providers are using IaaS, PaaS, or SaaS for the technology part, but we are quite sure that these are used.

- IaaS in this service could be used to host all the applications that run behind the service, as there is definitely a cloud solution in place because bikes need to know their location relative to the closest station location. This is probably done within a virtual machine, which essentially is an IaaS service.
- There could be many PaaS solutions in use, but we are quite certain that databases are used to store all the information and statuses of the bikes. Databases are part of Platform as a Service.
- SaaS is definitely in use for the Mankeli bike service because email services and other office tools are certainly used to manage internal and external affairs for the company.