

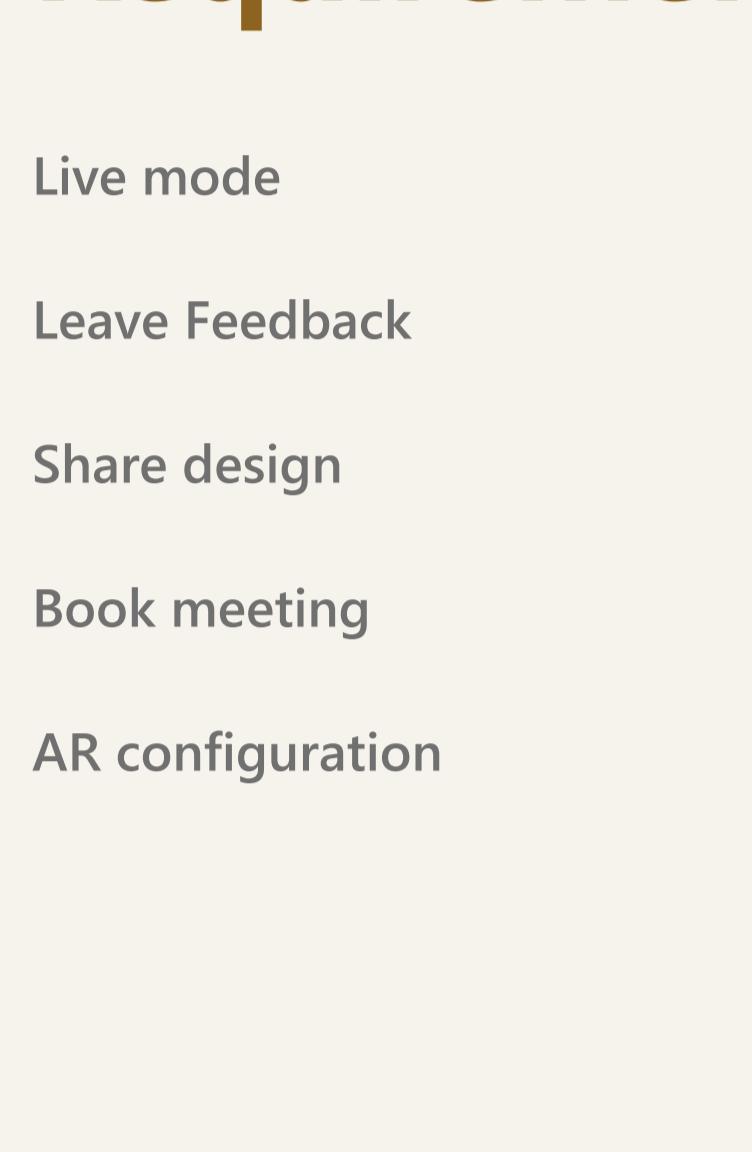
Goals

Increase market share
Lead generation
Low Complexity
First to offer application to private customers
Increased brand awareness
Cutting Edge

Challenges

Required tech with limited budget
Multiple brands - one design
Low brand recognition

Style Guide



End User

House Owners
35-50 years

Requirements

Live mode
Leave Feedback
Share design
Book meeting
AR configuration

Tools

Adobe XD
MIRO
Optimal Workshop
Adobe Illustrator

Duration

6 months

Background

JABS group consists of multiple retailers that specialize in the sale of windows and doors to private individuals.

They have a market presence in 6 countries with several different brands utilizing a similar style and layout.

We were approached by them as they were looking to capitalize on the app market, a segment where they currently have no presence.

They were looking to create an AR application that would allow users to try out their products. The project was to be developed in several stages, with each iteration adding additional features.

My role in this project was UX/UI Designer and Product Owner.

Overview

The application would allow the user to scan their property and apply windows and doors in a drag & drop fashion. The different designs could thereafter be saved and shared with friends and family or with a salesperson. The purpose of this being to get feedback on the design, price information and potentially book a meeting at one of the local showrooms.

It would support a live edit mode and a save/load functionality to allow editing in any location. AI would be implemented with the purpose of automating as many user decisions as possible to allow for the low complexity design that the customer was looking for.

There would be no user management for the first version, as it was not needed.

Problem

The application would initially offer limited functionality, since the customer wished to live test the product concept before committing more resources. The problem would be deciding on which features were to be prioritized to make the application interesting enough to retain user interest.

Required tech was not supported on older phone models. (iphone <11), which could become a major obstacle.

Research showed that the user chooses a vendor that allows for high customization. This would become problematic without cluttering the UI.

Process

Beginning with EMPATHIZE, I felt it was crucial to do competitor research to see what the main competitors were offering, what we could learn from them and where we could offer a better solution.

I used MIRO throughout this process as I find it to be an excellent tool to gather and share the process with colleagues and stakeholders.

The research was very insightful as I managed to get a good overview of the features that were widely in use and I also discovered a semi-competitor application, targeting retailers instead of private consumers. Although not in direct competition, it was helpful to get a source of inspiration and an understanding of how the competitors had approached the market.

I was also given access to an extensive research report that dived deeper into the market segment as a whole, which gave me a good indication of how well established the customer brand is, and it also gave me good insights into what is important for the user when choosing a retailer that offers similar products.

This **process** and the **report** can be seen on the following links:

[Research report](#)
[MIRO board](#)

The first takeaway was that users are likely to choose a retailer that comes highly recommended or has at least been used by friends and family. It was therefore my recommendation that initial features such as ability to rate and share be prioritized.

The second takeaway was that competitor designs have not taken comfort into consideration. The user is forced into a landscape mode (which per say is fine), but the design falters in its interaction. The interactive elements are outside of the range of comfortable hand gestures, not to mention the range of the fingers when holding the phone in this position. They are also to a certain extent, superfluous and obstructing, which takes away a lot of visibility during use. This I felt was a shame seeing the very nature of an AR application.

I set up an internal goal to design the application so that the user retains maximum comfort and can reuse elements as much as possible.

The third takeaway was that it is crucial for the user that the retailer offers a high level of customization. This could present a challenge as the customer was expecting a feature and customization light product for the first iteration. I would take this insight with me to the next step, the stakeholder interviews.

Acting as product owner in addition to designer, I was in constant contact with the stakeholders, and held interviews with them to be able to define and narrow the scope as well as establish requirements for the project, both in terms of features and deliverables. We also set up goals that were aligned with their business strategy and the expectations for the application.

Lastly I presented the findings from my research.

With scope and requirements DEFINE(d), I began to look at their existing websites as it was important to create a consistent feeling between the different platforms. I also wanted to do a UX analysis to see where usability could be improved, but also to see if their style guide was being adhered to. **My overall impression was that too many colors were being applied for call to actions and clickable content. My recommendation would be to adjust this on the website so that consistency could be maintained.**

I now began to IDEATE by visualizing the intended product, beginning with a mind map. This allowed me to get a good overview and branch out and explore different structures and ideas in a quick and viewable way.

My insight from this was that there would be no need for a deep information tree structure, as the app mainly utilises one feature which is easily located, thereby negating a need for a complex search functionality.

From the mindmap I proceeded to create a sitemap, which I find to be a great tool to showcase to stakeholders as well as developers. I generally find it very useful to get the structure in place before I start to design.

The **sitemap** and **mindmap** can be viewed on the [MIRO board](#).

After a series of meetings and slight revisions, the customer approved the initial concept. The next step would be to create a graphical interpretation of how the application may end up looking. I started to sketch which I find both cost- and time saving, compared to creating a wireframe.

The **sketches** can be viewed [here](#).

I strive to follow the **human centered design principle** when designing. This meant involving the end user early on and ensuring they remain a part throughout the project lifecycle. The research I was given access to was an important part of this, but I also made it a habit to convince the client that we should be testing regularly and early on to avoid time being spent on developing a product that was not in line with customer expectations. We also spent a great deal of time looking at user feedback on competitor designs and from the JABS GROUP as a whole.

My interpretation of the design principle resulted in the following design choices:

- Reusing space to prevent a cluttered UI that obstructs the AR interactions/objects
- Showcase the comfort range of gestures and place interactable objects within range of this

- Utilize handgestures for navigation to give a cutting edge feeling as well as a step away from competitor designs that are mainly click based

- Chosing a navigation style suited to the existing customer segment. (Well established gestures, simplified interaction while automating certain aspects using AI and background logic)

- Added confirmation-clicks to actions to prevent accidental clicking during swipe gestures.

I also wanted the user to be supported throughout the experience instead of only relying on an initial tutorial in line with competitor designs. The illustrative approach used in **such designs** looks very nice, but the information overload also results in the user repeatedly having to leave their design to revisit the tutorial.

We proceeded to TEST by bringing in a few end users to test the concept. A **talk aloud** session was held with a group of 5 users.

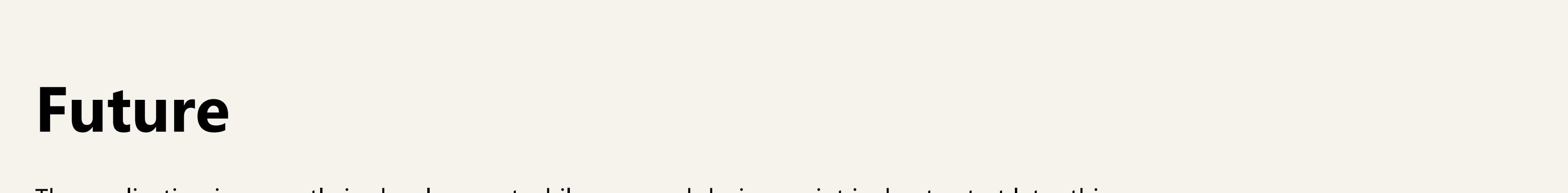
The takeaway was that the concept was well received but some slight revisions needed to be made, namely the following:

- The share feature should be simplified and differ depending on whether the design was being shared with JABS Group or friends.

- The taxonomy used throughout did not resonate well with the test group and would need to be revised.

- The scanning/mapping part was not clear to the user and would need to be clarified.

Following this, the sketches were turned into a low fidelity prototype which was presented to the customer. It was overall well received and we were asked to create a higher fidelity prototype for testing purposes.



Now it was time to create a feel and style for the application, with the only input from the client being that they wanted a similar look to their website. The color scheme was therefore retained with soft additions of shadow to any UI element to lift them and make them stand out more from the background. This also serves to highlight the AR effect. Here I drew inspiration from camera and barcode scanning applications.

Realism was an overall priority while maintaining a playful and reactive interface. I looked for inspiration from IKEA applications used for trying out furniture at home using AR.

Before raising the PROTOTYPE fidelity level, a concept image was created using Illustrator to showcase the look and feel with the style guide applied. The customer responded well to this and gave a green light.

The **concept image** can be viewed [here](#).

With AR the UX process works slightly differently in my experience. Available software such as Adobe XD and Figma offer little to no support to test in an alternative reality environment. What has been done with previous applications is that we test what can be tested using existing design software, such as navigation, iconography, task analysis and information architecture.

A stripped down version of the application was created using the Unity Engine, where the main features could be tested in a live environment. This process does not waste development hours since a lot of the tech can be reused from other projects and the building blocks for the projects would need to be created regardless.

- 10 new users of different ages were invited for live testing. Firstly, a click test to evaluate icon recognition and the **results led to a few icons being replaced**. Secondly, I wrote two scenarios based on the personas we had been provided with and had the users attempt to complete them. This generated a great deal of qualitative feedback which led to some **minor revisions for two features, namely sharing and editing objects**.

Solution

By bringing the intended concept early on to the end user, we were able to quickly see the level of interest and get a feeling of what features were of the most interest. The extensive research that was made available to me was a fantastic source of information to reaffirm which features should be prioritized.

In an attempt to spike and retain interest, a development roadmap was added to give the user a sense of anticipation and full transparency of what was to come.

The ability to rate and review future features was introduced, giving an early and ongoing insight well before future development cycles.

To address the issue of older phone models not supporting the technology needed for the AR tech, we researched the most common phone models used by the end users as well as country data as a whole, and found that over 70% of the intended end users owned a phone that met the minimum requirements.

To adhere to the user preference of a high customization level, I made a design choice to initially allow for any customization that gives a visual change to the object, examples of this being color, size, type etc. Customization such as lock type and material would be added at a later stage.

Future

The application is currently in development while a second design sprint is due to start later this year.