

**Find your reliable dental product
outsourcing partners here in**
DENTNERS

CONTENTS

Note

This portfolio is based on an actual product that the company officially launched.

I suggested an overall plan including market research, UX research, and operation strategy definition based on UX analysis methods; however, multiple decisions such as target market/user definition, and branding were taken by management.

In this portfolio, I included the actual product's delivery process and added my own research/analysis/ideas/suggestions based on UX research and design process; these are highlighted with a star (★).

Introduction

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Project information

Features requirement

HERI Bio Inc. is a startup developing "digital dentistry-related" IT products. Its business plan includes a rough service concept of several products and launching plans were fixed before I joined the company.

Requirements of "Customized dental product online marketplace" were:

1. Digitized ordering system; intraoral scan file attachment and order sheet in digital format
2. Dental clinics and labs all over the world can join this marketplace
3. Sellers (dental labs)' evaluation process performed by buyers (dental clinics/dental labs)
 - Evaluation process was developed by several dental healthcare experts and consulting firms

My role

My tasks as a UX researcher/designer and product manager were:

1. User research and modeling
2. Make a feature list and organize IA
3. Low fidelity design and storyboard documentation
4. Communicate with developers and a designer
5. Policy documentation
6. Marketing/Operation strategy

Team

The rest of the team was consisted of:

1. Product Designer - 1
2. Web Developer - 2
3. Data Engineer - 2

Background knowledge: Terms

Intraoral scanner

is a 3D scan machine that is used to scan patients' teeth and jaw to visualize the patients' status; the scan file can be used as a base frame for dental technicians' product building.

A dental technician

is an expert who builds customized dental products such as prostheses and aligners. Most countries do not have specific qualifications or requirements to become a dental technician but Korea, Japan, Germany, etc. have a college degree system.

Customized dental products

are prostheses and aligners which can be made based on each patient's anatomical characteristics and dental treatment needs by dental technicians. Prostheses consist of a dental implant, crown, denture, bridge, laminate, etc.

The digital method

of building dental products can be done by scanning the patient's oral cavity using an intraoral scanner, designing via a 3D CAD program, and printing the final products by a 3D printer. This method is newer and more accurate than the analog method.

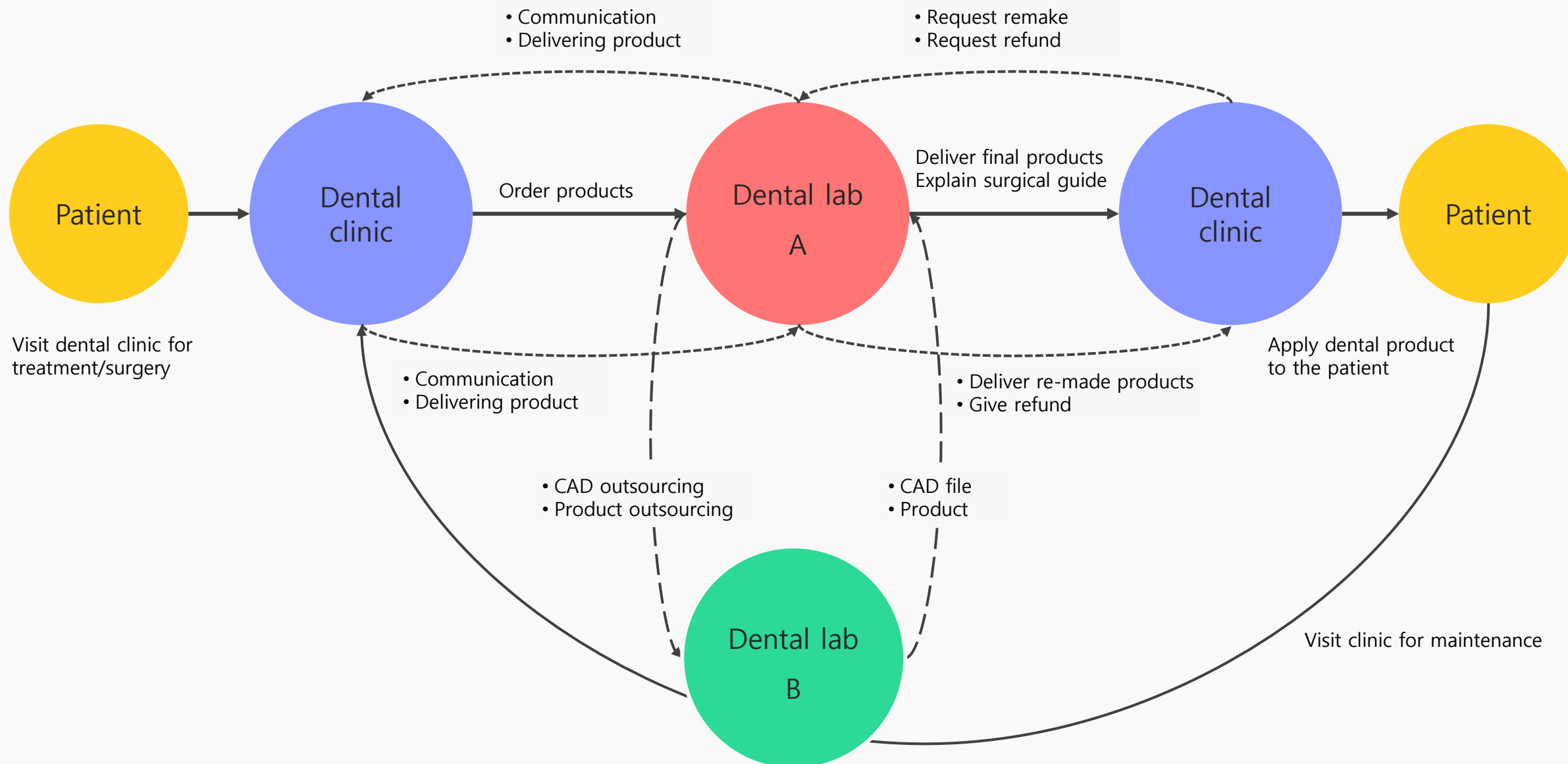
The analog method

of building dental products can be done by plastering the patient's oral cavity. This method is still being used based on the preference of dentists, but the digital method is getting more popular due to accuracy and convenience.

CAD programs

specialize in dental products are used in dental product building. This have become even more common due to the development of digital dentistry and 3D printers.

Background knowledge: Work process



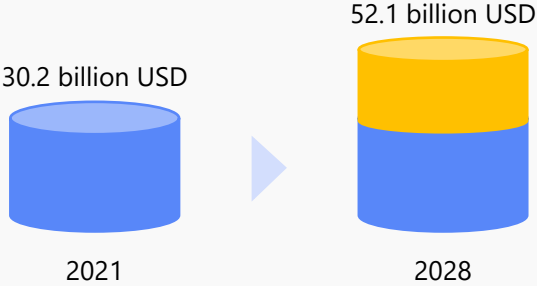
Project overall

This “Project Overall” contains the basic research results, the company’s point of view, and my own ideas.
I highlighted my own ideas that were not applied to the actual product.

Market/Social status	Issues	Goal of achievement
<p>Average life expectancy has increased.</p> <p>This led to higher demand for dental treatment, surgery, and repair.</p> <p>The international outsourcing market for customized dental products is growing rapidly due to the growth of digital dentistry.</p> <p>Dental technicians can build prostheses and aligners based on 3D scanned files sent from dental clinics.</p> <p>Thanks to intraoral scanners, dental clinics can easily order qualified products for reasonable prices or average products for cheaper prices from local and foreign dental labs.</p> <p>Living abroad has become normal and getting dental treatment and surgery in foreign countries has become necessary.</p> <p>Also, medical tourism has become popular, including dental treatment. Many people need repair and consistent checkups in their own countries.</p>	<p>Difficulties for smooth coworking arise when using a variety of communication tools, such as email, messaging apps, websites, and more.</p> <p>Most dental labs which get orders from foreign dental clinics and labs promote them on their websites and upload order forms there.</p> <p>Dental clinics print this order, fill it out by hand, and send it via email along with the oral scan file. In addition, detailed requests and clinical sharing are often delivered through messenger apps. Users cannot focus on one channel because handwriting is still necessary, scan files must be sent separately, and communication is distributed through different apps.</p> <p>It is not easy to judge the skills of candidate partner labs when outsourcing overseas. It is cumbersome to visit and compare the distributed dental labs’ websites one by one, and it is difficult to indirectly research the skills of the laboratory before receiving samples directly.</p> <p>Korean dental labs usually have financial difficulties despite their highly-skilled technicians whose ability is recognized in many countries. Most dental labs are small-sized and investing in sales/marketing is not easy. Korean government tried “The dental cluster” project, gathering up small-sized dental labs in one region to lead their collaboration and synergy. However, this project has practically failed and has been neglected.</p>	<p>[Feature]</p> <p>All-in-one platform which provides ordering, communication, and delivery tracking.</p> <p>Easy ordering system by choosing the products and detailed options on the website, as well as the selection of teeth/jaw and drawing explanations which were previously written by hand. In this way, also processed in one order.</p> <p>[Service]</p> <p>The level/service and product quality evaluation criteria of the dental laboratory (the seller) are prepared, the marketplace operator evaluates the level (seller) and the customer evaluates the product quality to provide a reliable marketplace.</p> <p>[Business]</p> <p>In the early stages, it helps to introduce Korean dental labs to international markets</p> <p>There are no nationality restrictions for sellers or buyers, and it provides a starting point for labs to generate profits through businesses worldwide.</p> <p>Dental clinics with many visits from foreign patients in medical tourism are the main target, which leads to cooperation with foreign dental labs for maintenance.</p> <p>In a long term, establish a worldwide ecosystem that provides networking of dentists, dental workplaces, and various dental-related companies.</p>

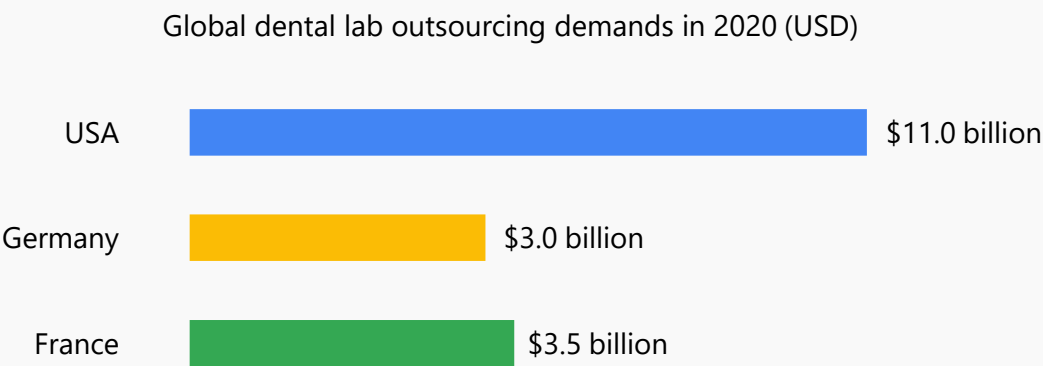
Market analysis

Dental healthcare market expands rapidly due to increased life expectancy



- Demand of dental healthcare/treatment has increased
- Digital dentistry created market expansion, including global dental outsourcing

Digital dentistry’s development accelerates dental lab outsourcing

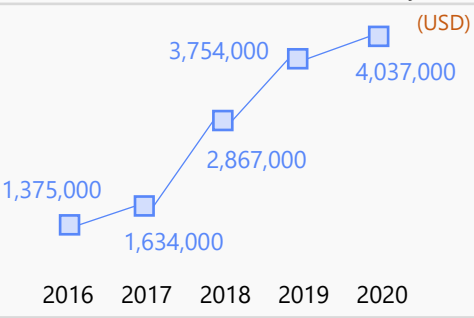


★ ★ ★ The high reputation of Korean dental industry globally

Status of exports of dental implants in July 2021

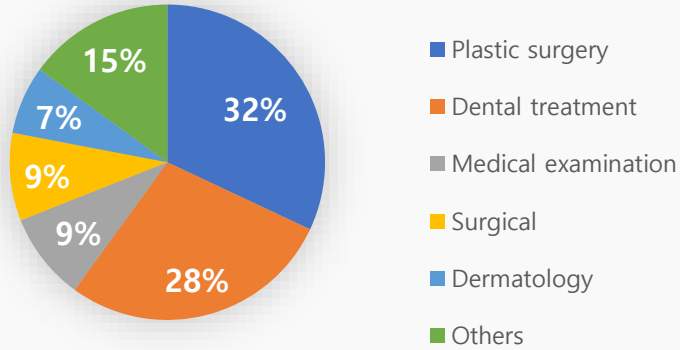
Country	Dental implant	
	Export (USD)	Growth from July 2020(%)
China	23,070,000	173.2
USA	413	99.1
Russia	406	45.7
Türkiye	181	190.3

Sum of number of exports of Korean-manufactured dental X-rays



★ ★ ★ Medical tourists visit Korea with the purpose of dental treatment

Demands for medical tourism to Korea in 2020



Keywords

Digital dentistry

Medical tourism

Higher demand for dental healthcare

International outsourcing

Dental equipment

Interview

Interview Summary

Keywords

Interviewee

Bio

Issues & Insights



A lab owner who works with local dental clinics

- Owns a small lab (3 employees)
- Only worked with local dental clinics
- Loyal customers are Korean local luxurious dental clinics, mostly in Gangnam area

- Although their price is higher than other labs, the benefit their partner clinics make is much bigger compared to the amount the clinics pay to the lab.
- Even if dentists make mistakes during the surgery, they ask for unlimited free repair of dental products and dental labs mostly can not refuse, in order to keep the partnership. This incurs financial damage in the labs.
- Hiring more technicians is not easy due to the tight budget but sometimes the workload is too much for 3 people.
- Their main sales channel was to participate in offline conventions but due to the COVID-19 pandemic, they have fewer opportunities to make new partners.
- Price standard of their work is underestimated by their clients.
- 3D intraoral scanner is commonly used in Korea, especially in luxurious dental clinics, but adopting and maintaining a 3D CAD program to use scanned files is expensive, which is difficult for small labs to afford.

#Digitized order form

#Compatible solutions

#Transparent price range

#Standardized warranty

#Digital production



A lab owner who exports dental products

- Owns a medium-sized lab (32 employees)
- Has an abundance of experience with export/outsourcing
- Loyal customers are mainly dental clinics in USA including the ones owned by Korean dentists

- Anatomy based on diverse national origin is one of the biggest issues in building customized dental products, which sometimes need to be rebuilt, resulting in increased costs.
- Products are sometimes damaged during international shipping, and clients often ask the lab to pay for this, even though it was not their fault.
- They used to make more connections by participating in international conventions, but travel restrictions made offline sales and marketing works difficult.
- Language, especially English, proficiency is important to communicate with foreign dentists, but most Korean dental technicians are not fluent in English. This is a hindrance to them, since Korean technicians are mostly well-trained in their field and able to explain surgical guides.
- Cheap Chinese or Vietnamese dental labs are a huge risk and Korean labs can not compete with them on price.
- Price range in dental clinics in USA is very wide, and it is not easy to define their standard price.

#Luxurious market

#English conversation

#Online sales

#Shipping/Delivery issue

#Sales between labs

Cognitive walkthrough

Getting user insights for dental product outsourcing was limited by interviews.

I got more insights from cognitive walkthrough by exploring communities of dental technicians/dentists to find out their actual issues in partnerships.

Dental technicians



"Opening new labs is risk-taking work because it is hard to get new contracts. Especially when you are new to your work, it is not recommended to open your own lab."

-Germany



"I usually target newly opened dental clinics because it is easier to have contracts with them than dental clinics with history. If I want to have partnerships with well-known and financially stable dental clinics, it will require lots of money and effort without any assurance."

-Canada



"I even provided lunch catering to the whole staff in many dental clinics for several weeks to give them good impressions so that I could get chances to talk to dentists. I was lucky but I am concerned if other labs could steal the partnership again by doing the same as I did."

-USA



"I am confident with my lab work, but communication is not easy with clients outside of China. Moreover, using regular mobile messengers and email for talking about clinical cases is not very ideal to this type of conversation."

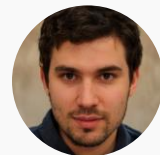
-China

Dentists



"My current partner lab already knows my style and requests, so it is very convenient for me. There is not enough reason to change partners unless we have many more patients who need prostheses/aligners"

-France



"We already have our dental lab in the clinic. Currently, we don't have plans to find partner labs. We might find some labs when we have to outsource some amount of products if our lab gets too busy"

-USA



"We have many European patients who came for dental treatment and travel at the same time. Their concern is the maintenance of the oral treatment itself and prostheses/aligners when they are back to their countries."

-Jordan



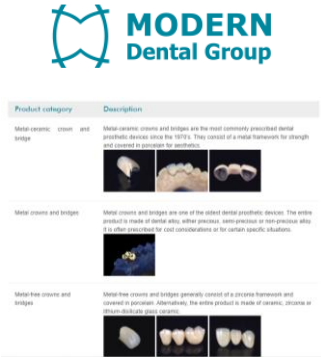


"Some Asian labs' products are sometimes not good fits to some patients from regions outside of Asia. This makes the treatment period longer."

-USA

Competitors research

There are a limited number of competitors providing similar services, since most dental labs do sales and marketing using their own websites. Three services below provide outsourcing services of dental products using different methods.

	Lab Pronto	Made-in-China.com	Modern Dental Group
			
International outsourcing	○	○	○
The service itself is a manufacturer	X	X	○
Provides standardized online order sheet	△	X	△
Provides details of dental labs	X	○	△
Communication feature	X	△	X

What we need :

Standardized order sheet

Detail information of dental labs

Communication feature

List of dental labs

Huge dental lab pool

UX Modeling-Persona

PERSONA 1 : DENTIST



REINA GOMEZ

Occupation
Prosthodontist

Education
NYU, College of Dentistry

Location
New York City, USA

STORY

Reina is a talented prosthodontist who runs a network dental clinic with several other dentists in the center of New York City. Her clinic has a small dental lab with 3 dental technicians. Since there are only 3 technicians in the lab, Reina's clinic often orders custom-made dental appliances from labs in China and Vietnam when they can not handle the demands. They have a fundamental partnership with the outsourcing labs.

Her patients have diverse backgrounds; ethnicity, gender, occupation and etc. Each patient has different needs for their dental treatments so it is always important to stick to their personal requests.

Reina's clinic started using a 3D intraoral scanner 5 years ago and this made the treatment process faster and easier. Also, they found it is very useful for collaboration among dentists and technicians through communication/sharing features.

INTERESTS

- Concerts and art performances
- Jogging
- Collaborated work with other dentists

INFLUENCES

- Whatsapp, Facebook
- GNYDM(Greater NY Dental Meeting)
- Trios intra oral scanner
- Digital transformation of dentistry

GOALS

- Provide good treatment with high quality dental products
- Explain treatment/surgery method enough to patients

WANTS

- Long-term partnership with same dental labs
- Collaborated work with dentists from different areas such as implantologists, orthodontists and etc.

NEEDS & EXPECTATIONS

- Intraoral scan file sharing feature
- Diverse options of building appliances based on features such as origin, age, and gender

PAIN POINTS & FRUSTRATIONS

- Outsourcing labs should maintain their business well
- Different concepts/understanding of dental anatomy between her and partners from other countries

PERSONA 2 : PATIENT



AIDA SHEHADEH

Occupation
Lawyer

Education
School of Law, The University of Jordan

Location
Amman, Jordan

STORY

Aida is a lawyer living in Amman, Jordan. Born into a rich family and had nearly all kinds of privileges except for dental health.

Aida has fragile gums and this affects a lot of the teeth themselves. She regularly has appointments with her dentist and is very used to getting dental treatments.

Aida loves a healthy lifestyle. She takes care of herself a lot by regular exercise and a balanced diet. Also, reading is her way of maintaining healthy mental.

Aida had opportunities to travel outside Jordan thanks to her parents who like traveling. She has already been to more than 20 countries and some of the trips' main purposes were for medical treatments.

Especially when she went to South Korea, everything was satisfying because it was easy to travel, shop and get medical treatments in a few days. Aida got dental treatments including an implant and it requires consistent maintenance. It is not too difficult to get it fixed in Jordan whenever it has a problem but since different models/types/treatments are used in Jordan and Korea, her dentist sometimes has to put more effort into it.

INTERESTS

- Travel
- Working out and healthy diet
- Reading
- Experience new culture and atmosphere

INFLUENCES

- Hotels.com, Tripadvisor
- Chanel
- Amazon Kindle
- Apple/iOS

GOALS

- Keep healthy lifestyle
- Visit many places as much as she can
- Travel abroad for sightseeing, shopping, beautification, and medical treatment all at once

WANTS

- Diverse channels for getting different kinds of information
- Freedom to travel
- Medical tour including dental treatment

NEEDS & EXPECTATIONS

- Dental beautification
- Reliable dentists
- Dental treatment maintenance in Jordan
- Quick and accurate service

PAIN POINTS & FRUSTRATIONS

- Travel for maintenance to the dental treatment could be hard if there are travel restrictions
- To find other dental clinics that can keep doing the maintenance work for her previous treatments

Insight

Medical tourism

Anatomy difference

Maintenance

Network dental clinics

Dental labs' collaboration

Long-term partnership

Built-in labs

UX Modeling-Persona

PERSONA 3
: DENTAL
TECHNICIAN



JIHOON KIM

Occupation
Dental Technician

Education
**Dental technology,
Shingu University**

Location
Seoul, South Korea

STORY

Jihoon is a skilled dental technician who has 21 years of experience including 12 years of having his own dental lab. Due to the rough business environment and low price range in Korea, it was not easy to maintain the business for that length of time.

Jihoon explains product details and surgery guides so well that his customers are always satisfied and can provide good surgery for the patients. Other dental technicians suggested that he make his business international, but Jihoon is not confident in English and marketing. He is willing to try if he can get assistance in those areas.

Jihoon keeps learning new skills by going to seminars. New equipments, softwares, and materials are developed quickly but his budget is tight and he can not always upgrade everything. In particular, he pays a lot for CAD software licenses; if there is a cheaper way to share intraoral scan files, he would gladly learn it.

INTERESTS

- IT technology
- Golf
- Movies
- Aesthetic dental products

INFLUENCES

- Asus
- Duolingo
- Facebook
- 3 Shape solutions, Exocad

GOALS

- Make constant profit from international business
- Hiring more technicians if his business expands

WANTS

- Reliable system for orders, shipping, and payment
- Easy and simple order sheet form which can be used worldwide
- Prove product quality of his lab

NEEDS & EXPECTATIONS

- Delivering surgery guides and information efficiently
- Intraoral scan file sharing feature
- English real-time translation

PAIN POINTS & FRUSTRATIONS

- English and other foreign languages are difficult
- Can't afford additional sales/marketing works due to work load
- Sustainable business

PERSONA 4
: DENTAL
TECHNICIAN



PETER SCHULZ

Occupation
Dental Technician

Education
Solingen gymnasium

Location
Frankfurt, Germany

STORY

Peter has 10 years of experience as a dental technician. He used to work in a big dental lab who's main source of business was luxurious dental clinics. Peter made a good living in this job, but wanted to run his own business. Recently, he opened a small dental lab together with a friend. Their business had a good start, as they opened just before IDS (International Dental Show), where they presented their building process to good effect and attracted several new clients.

The growth of Asian immigrants' population in Frankfurt affected to his work. Due to the fact that Asians have different anatomical features from other races, he sometimes has to make products for Asian patients all over again. Some of his friends recommended him to outsource some of his works to dental labs in Asian countries to solve the problem but he is aware of long delivery time and real-time communication.

INTERESTS

- Camping
- Party at home with family and friends
- Art fairs
- Dental prostheses

INFLUENCES

- Whatsapp, Facebook
- IDS(International Dental Show)
- 3 Shape solutions, Exocad
- Digital transformation of dentistry

GOALS

- Quick stabilization of his new business
- Family-centered living
- Find partner dental labs to outsource some of his works with high quality

WANTS

- Reliable partners
- Dental labs that can build suitable products for Asian patients
- Co-working solutions/programs

NEEDS & EXPECTATIONS

- Easy ordering system
- Work in between labs
- A delivery system for analog work
- Real-time communications
- Lab recommendation system

PAIN POINTS & FRUSTRATIONS

- Reliable partners are hard to find
- Build products all over again due to unpredictable causes
- Keep the due dates

Insight

Real-time translation

Communication

Reliability

Labs' collaboration

Shipping issues

Sales/Marketing service

Support for small
size labs

Sales/Marketing service

UX modeling-Journey map : Dental labs

	Sales/Marketing	Contract/Communication	Manufacturing/Shipping	Warranty/CS
Behaviors /Use of service	<ul style="list-style-type: none"> Search offline sales channel Search online sales channel Advertisement: Online/offline magazine 	<ul style="list-style-type: none"> Communication with clients(dental clinics/dental labs) Search restrictions and related laws of the countries where they want to export dental products Contract Get paid 	<ul style="list-style-type: none"> Receive intraoral scan files Design products with CAD programs Communicate with clients consistently Pack final products Send via international shipping service 	<ul style="list-style-type: none"> Explain products and surgical guides Replace defective or accidentally damaged products Refund Warranty service(paid/unpaid)
Issues /Wants	<ul style="list-style-type: none"> Offline sales is not easy due to travel restrictions Sales is not easy for one-person dental labs Acquisition of online sales channel is difficult Concerns about starting international sales Questions about the success of promotion 	<ul style="list-style-type: none"> Communication with foreign dentists is not easy Dealing with legal issues and taxes is complicated for non-experts Writing contracts with Korean dental labs is not common, which can lead to conflict Easy writing of contract is needed Getting paid later is not preferable 	<ul style="list-style-type: none"> Stable file sharing is needed Communication regarding CAD and intraoral scan file should be easier Effective communication is needed especially during manufacturing stage Goods damaged in transit may be incorrectly blamed on faulty packaging Shipment tracking is required 	<ul style="list-style-type: none"> Communication in English is not easy Customers are less comfortable when communicating via text only Require stipulated regulations on the scope or cost of remake and provision Refund rules should be documented Warranty and customer service's rules should be standardized, including its range and price
Satisfaction				
Needs	<ul style="list-style-type: none"> Advertisement Online convention/seminar Marketing in dental technicians' communities Additional paid service of consulting for international sales Sales/Marketing service 	<ul style="list-style-type: none"> Real-time translation Provision of legal counseling services and guidelines Mandatory contract between buyer and seller Automatic contract creation, including product information Escrow payment 	<ul style="list-style-type: none"> Connect cloud services for stable file sharing Communication feature integrated with CAD file and screen share Description for each product building process and memo to share details with buyers Packing video/image attachment Shipping/delivery tracking 	<ul style="list-style-type: none"> Real-time translation Video conference, chatbot features Define and officially document remake/warranty policy to avoid conflicts between buyer and seller

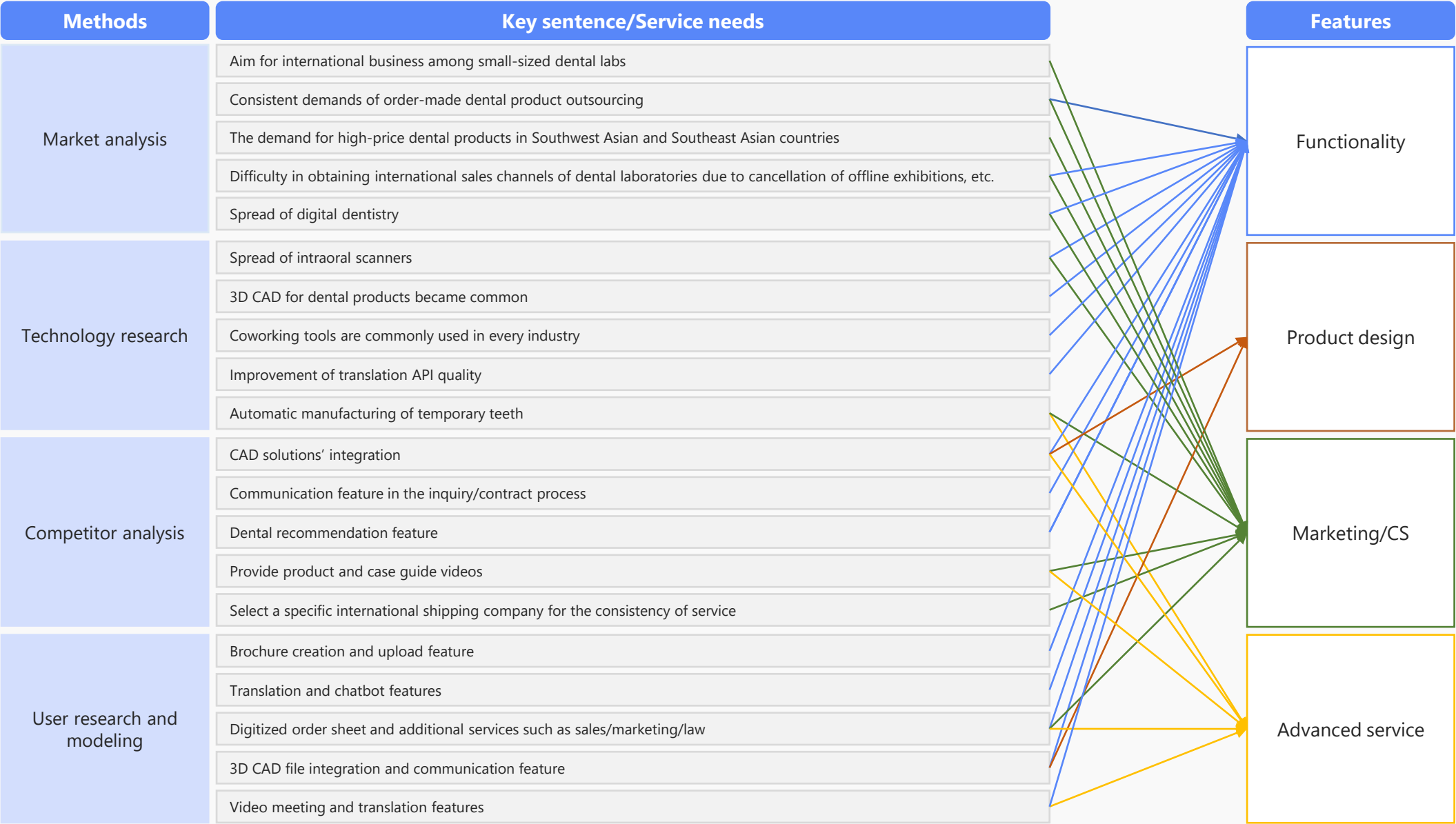
UX modeling-Journey map : Clients-Dental clinics/Dental labs

■ Dental clinics and Dental labs(B2B)

■ Dental labs(B2B) only

	Search dental labs	Inquiry/Contract	Build/Send products	Shipping/CS
Behaviors /Use of service	<ul style="list-style-type: none"> Discover dental labs in search engines Ask for partner lab recommendation in related communities Find information uploaded in online marketplaces View labs' ads in magazines 	<ul style="list-style-type: none"> Intraoral scan patients Identify and search the types of products which can be produced Communication with labs: Email, messenger app, and phone call Write contract/order sheet Pre-payment/money transfer Design outsourcing 	<ul style="list-style-type: none"> Communication with dental labs during the building status Track building process Track shipping process 	<ul style="list-style-type: none"> Quality check right after shipping is done Implement products, perform surgery, and maintenance after procedures Deliver claims and requests of dental clinics to dental labs Quality check of design files
Issues /Wants	<ul style="list-style-type: none"> Search range is too wide There are trust issues due to ad/sponsor links The number of communities is limited It is hard to make decisions due to regional differences Detail information is missing because it is a non-dentistry related marketplace Ads are limited and hard to get details 	<ul style="list-style-type: none"> Sharing scan files to dental labs is important Categories of dental products are all different among dental labs Searching is only available with keywords Order sheets are not standardized Communication with foreign dental labs is not easy due to the language barrier Real-time communication is hard Writing details of dental products in contracts/order sheets is inconvenient Anxiety of pre-payment Finding dental labs with high design quality is needed 	<ul style="list-style-type: none"> Writing details about each building process in messenger apps is inconvenient Communication whilst looking into 3D CAD file would be much more helpful Being updated on which stage are the labs in is needed Shipping without crack issues Concerns about customs clearance in different countries 	<ul style="list-style-type: none"> Communication of feedback on the quality check is cumbersome Need to share clinical case including dental technicians' explanation Delivering claims and requests between a dental clinic and a dental lab takes more time and effort Quality standard of design files is not clear
Satisfaction				
Needs	<ul style="list-style-type: none"> Search many dental labs in one service Put ads in major communities Standardized format with detailed information about labs and review/score feature Provide QR code which connects to the lab's detailed information page 	<ul style="list-style-type: none"> Provide standardized product categories Search filters for dental products Brochure/product introduction feature Real-time translation in a chat Show local time in chats Automated insert of dental products in order sheet/contract Escrow payment system Add design file quality standard for evaluation of labs 	<ul style="list-style-type: none"> Communication feature integrated with CAD file and screen share Create a timeline of work processes Integrate tracking of shipping processes Packing video/pictures attachment Provide guidelines for customs clearance 	<ul style="list-style-type: none"> Provide multiple choice guidelines for evaluation Communication feature which enables clinical case explanation 3rd party communication in chat/CAD-linked communication, etc. Design file evaluation standards should be provided apart from actual products

Research and analysis summary



Target market

AS-IS

- USA
- Europe

The company set the target market as the USA and Europe. I described the missing features of its target market definition below.

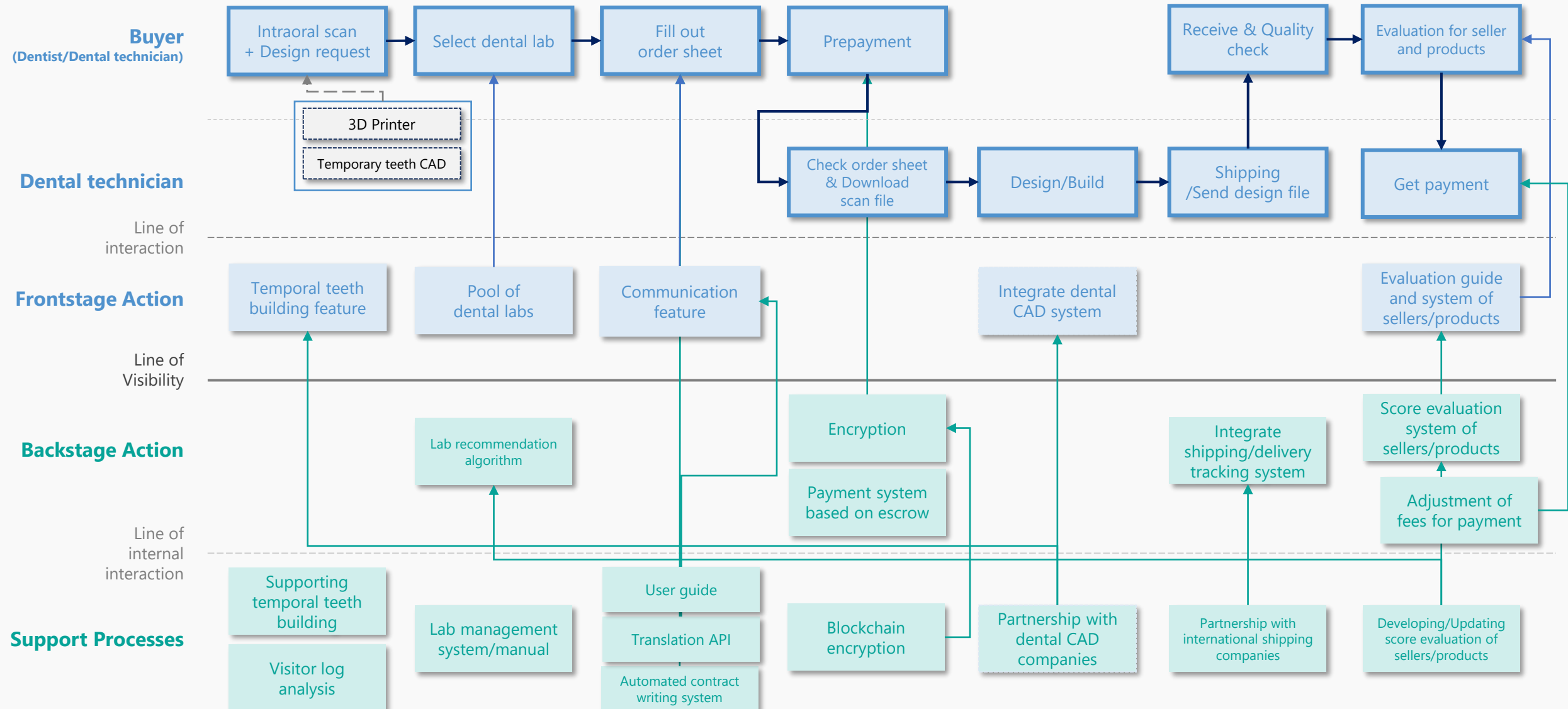
- 1. Wide range of target market definitions
 - Each state of the USA and countries in Europe have different economic/social status.
 - Therefore, the **target countries should be more specified.**
- 2. Lack of price range definition
 - "Order-made dental products in the USA and Europe are more expensive than those from Korea" is the company's starting assumption.
 - However, based on information from dental technicians, cheap dental products are actively imported from China and Vietnam to the USA and Europe.
 - Since Korean labs' prices can not compete with Chinese/Vietnamese labs, we should **target high-price (luxurious) markets.**

TO-BE

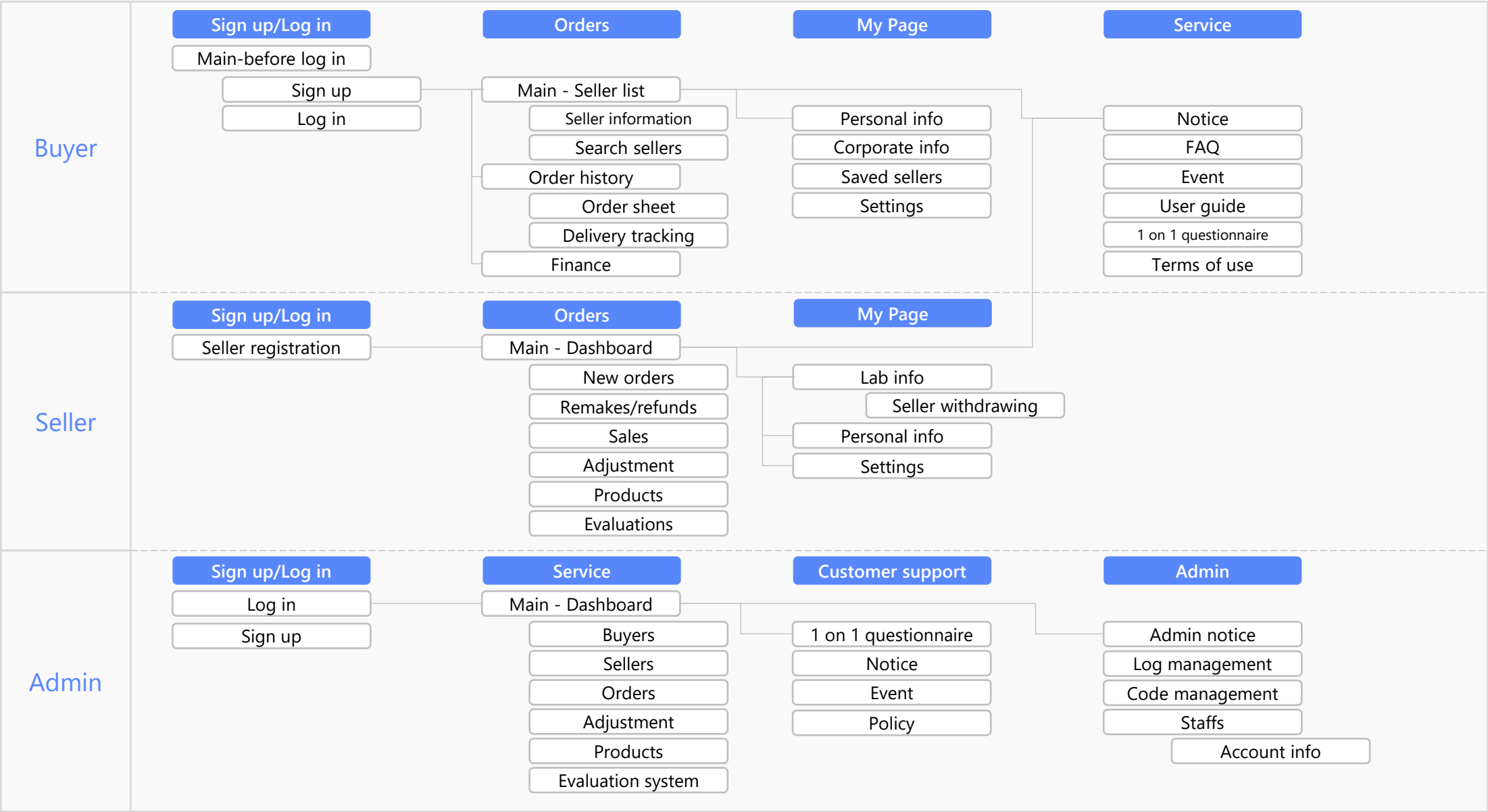


Service blueprint

This service blueprint contains the product's overall development that will be done from short term to long term.



Information architecture



Branding

The company and I had different points of view on branding. The service logo design was generated by a logo generating service to express my service concept.

AS-IS



HERi

The name "HERi" was kept, as this is the name of the CEO's (an experienced orthodontist) own dental clinic. However, HERi stands for "Healthy, Esthetic, Retrievable Implant" so this isn't fit for this marketplace service.

2go

"2go" comes from the management, who felt that service "is like a TO-GO service for prostheses/aligners". However, most of the employees and people who were asked agreed that "2go" seems more suitable for food delivery services. It is unlikely that dental experts will associate the name 'HERi2go' with a dental service.

TO-BE



DENTistry + partNERS

"A marketplace platform where dental healthcare experts can find their reliable and sustainable partners"

Rather than a specific entity being in a superior position to another, a mutual partnership should be encouraged in order to build healthy ecosystems. Finding long-term business partners amongst them is my point of view.

Also, I focused on an intuitive name and logo so that users, who are dental healthcare experts, can easily relate this service to their work.

Service concept & Product roadmap

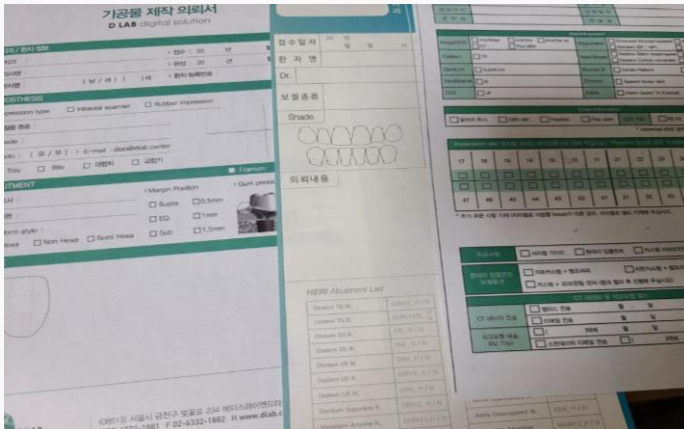
	Target market/users	Features: Order	Features: Communication	Operation/CS	Marketing/Sales
MVP	<p>Dental clinics : Newly opened clinics in China, Türkiye, and Saudi Arabia</p> <p>Dental labs : Korean small-medium sized dental labs</p>	<ul style="list-style-type: none"> Dental labs upload their own order sheet for dental clinics to fill out manually Dentals labs should post price range of each dental product Escrow payment 	<ul style="list-style-type: none"> Simple messaging system on the website provides 1 on 1 chat Capacity enough for sharing intraoral scan file 	<ul style="list-style-type: none"> Perform FGI of alpha version Collect user feedback (qualitative) -Get buyers' feedback by star rating system of sellers and products Collect use data (quantitative) 	<ul style="list-style-type: none"> Marketing to Korean dentists having clinics outside of Korea Marketing to Korean local dental labs who want to have international outsourcing Target newly-opened dental clinics
1st advancement	<p>Dental clinics : Saudi Arabia, Arab Emirates, Kuwait, and Qatar</p> <p>Dental labs : Saudi Arabia, Arab Emirates, Kuwait, Qatar, and countries nearby</p>	<ul style="list-style-type: none"> Provide a standard order sheet for dental clinics to fill out manually Dental labs should post the exact price for each dental product, including detailed options such as materials 	<ul style="list-style-type: none"> Messaging system provides group chat Provide real-time translation specialized in dental terms 	<ul style="list-style-type: none"> Make detailed scoring system for each dental product Give benefit to sellers with high seller/product score Encourage buyers to evaluate sellers/products by providing points which can be used for purchases 	<ul style="list-style-type: none"> Partnership with medical tourism and dental equipment companies Support online/offline convention for networking
2nd advancement	<p>Dental clinics</p> <ul style="list-style-type: none"> Clinics with high demand of medical tourists Luxurious clinics in Thailand, Philippines, China, etc. <p>Dental labs</p> <ul style="list-style-type: none"> Labs need outsourcing to other labs 	<ul style="list-style-type: none"> Provide standard/digitized order sheet Order system in between dental labs including products and CAD files' outsourcing Lab recommendations for dental clinics based on user data analysis 	<ul style="list-style-type: none"> Video chat with real-time translation subscript Integration of CAD programs in the chat to support useful and easier communication 	<ul style="list-style-type: none"> Apply evaluation system from the seller registration step for higher standards AI based chatbot service for rapid customer service 	<ul style="list-style-type: none"> Partnership with CAD providers Additional paid service of legal/administration/sales for small-sized dental labs

"An ecosystem for finding reliable partner dental clinics & labs all over the world"

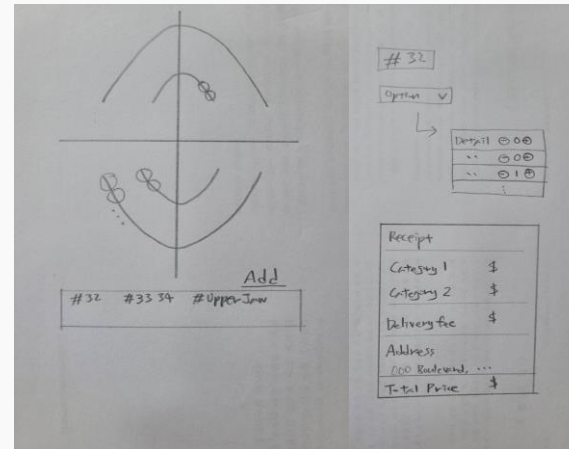
Low fidelity prototype

I focused on designing wireframes and writing detail descriptions. Order sheet were important in design.

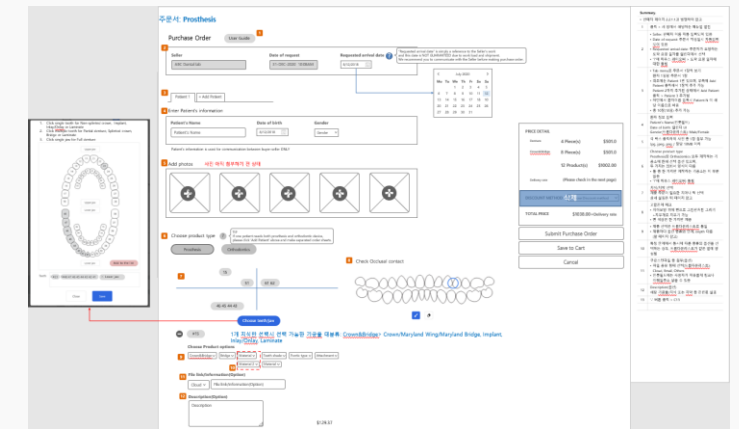
Order sheet design process



Actual order sheet used in dental clinics-labs(offline)

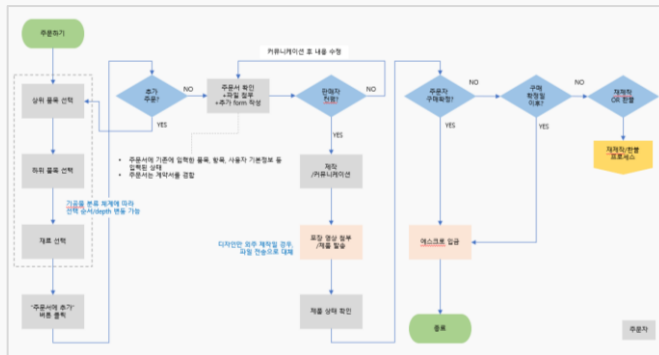


Hand sketch of the digitized order sheet

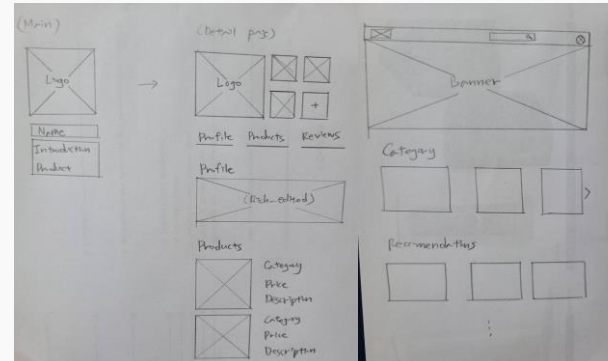


Wireframe and descriptions in storyboard

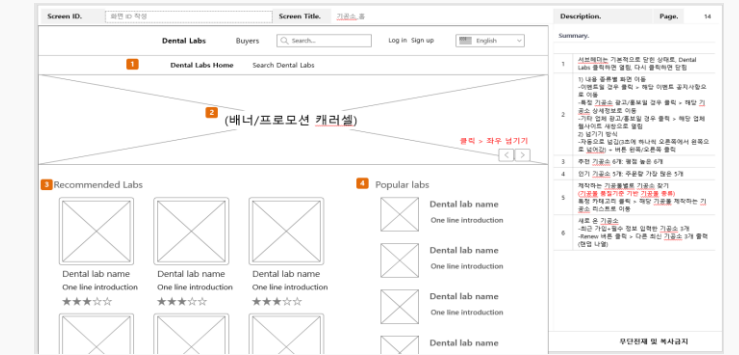
Main page design process



User flow design by screens



Hand sketch of main page



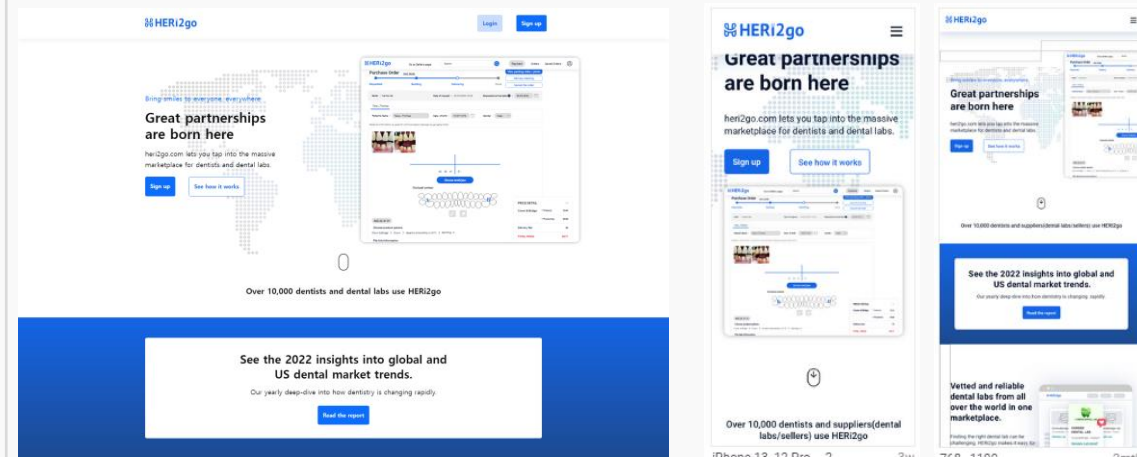
Wireframe and descriptions in storyboard

High fidelity prototype: Buyer page

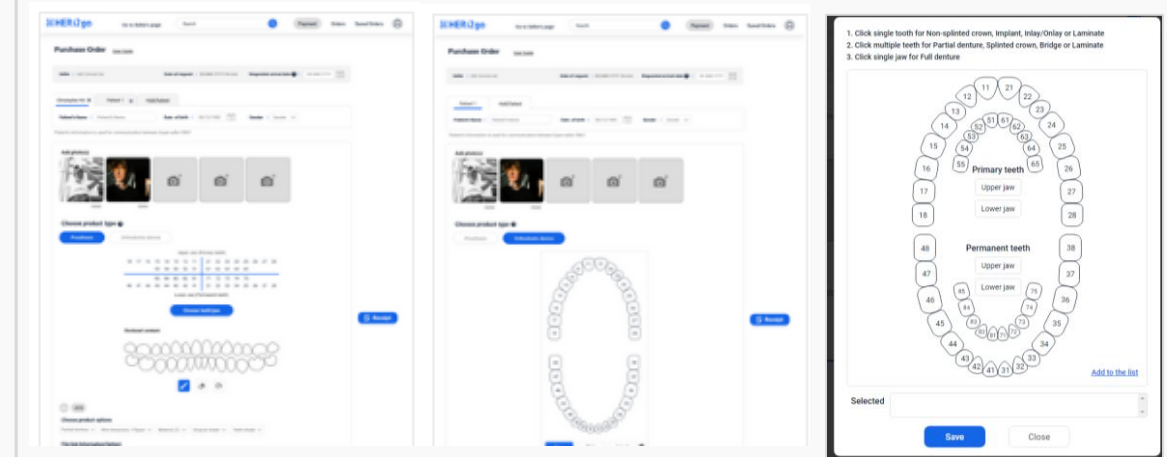
**High fidelity prototype was designed by a product designer

The main pages before and after logging in are designed separately. We especially put the biggest effort to design an easy-to-order page.

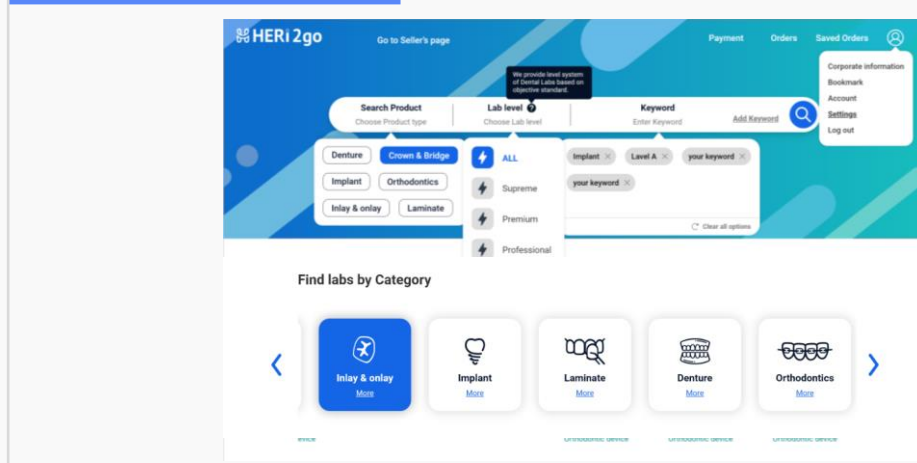
Main page



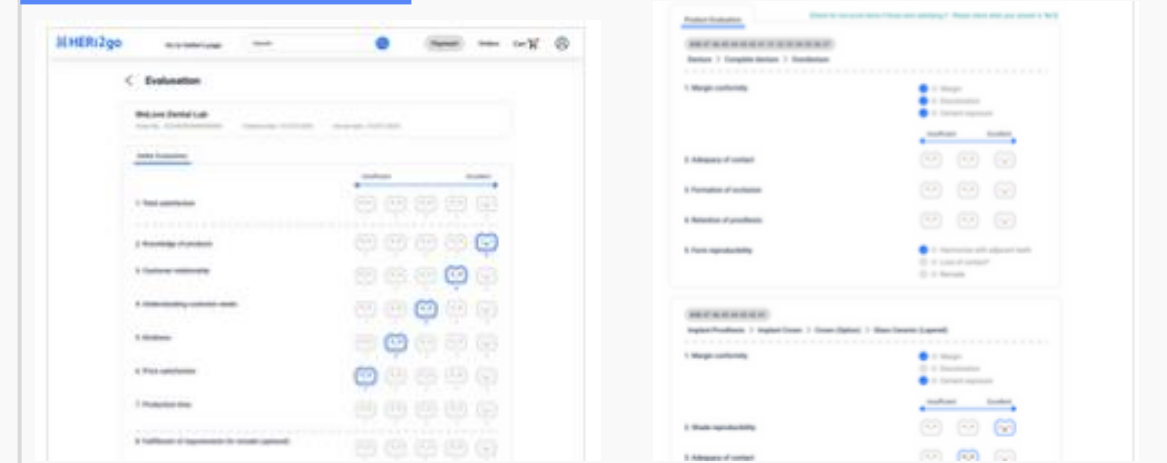
Order process



Search sellers



Evaluation

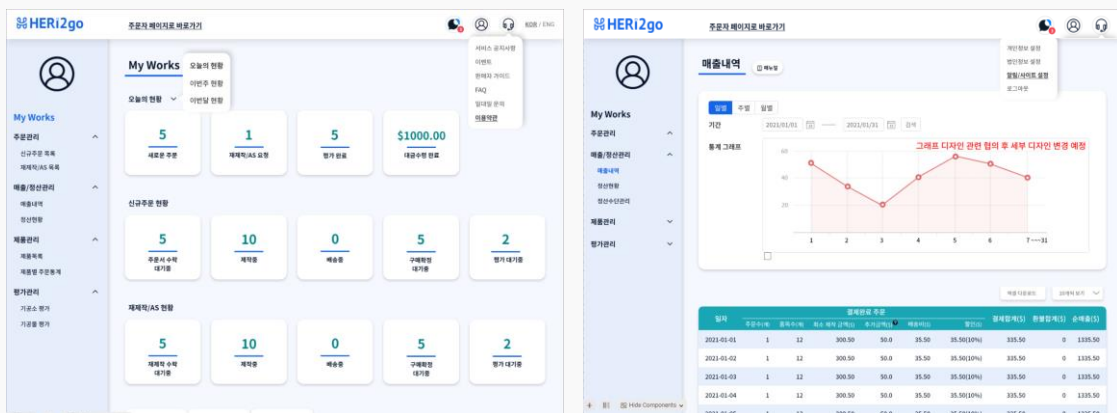


High fidelity prototype: Seller page

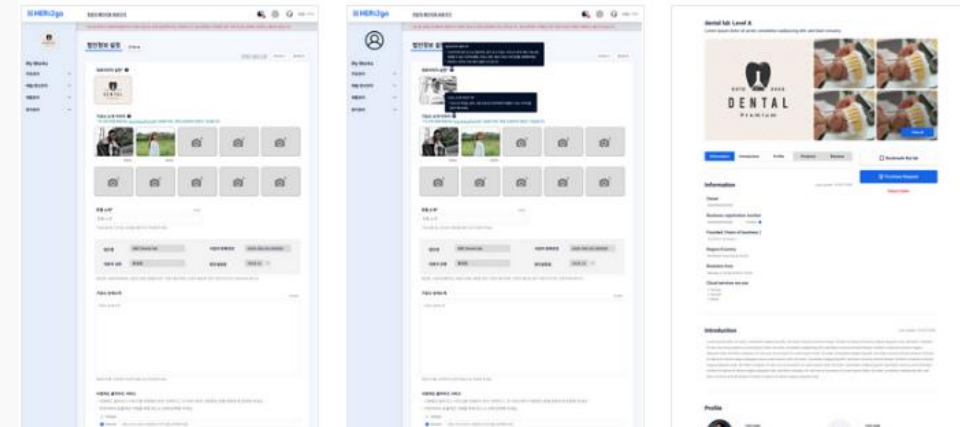
**High fidelity prototype was designed by a product designer

Seller page is focused on the dashboard, statistics, orders, and profile settings. It is provided in both English and Korean.

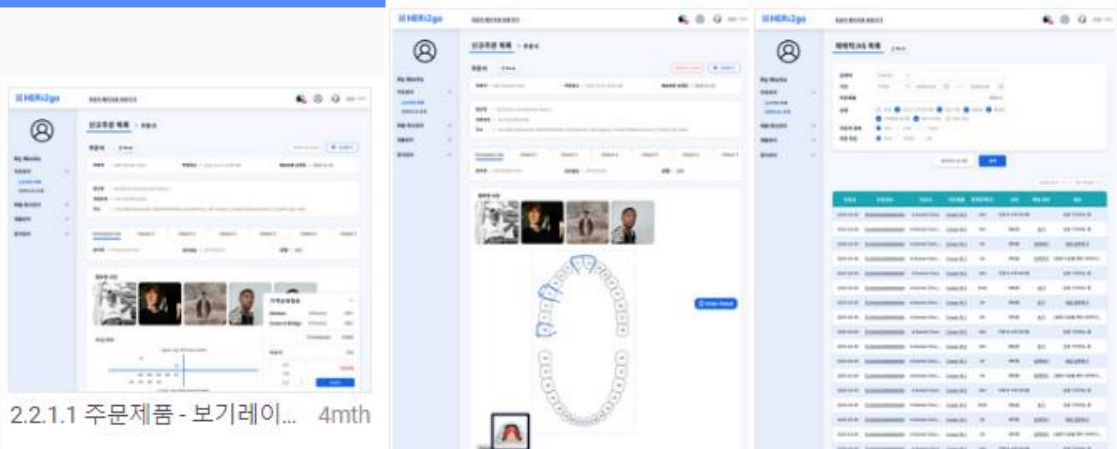
Main/Sales management



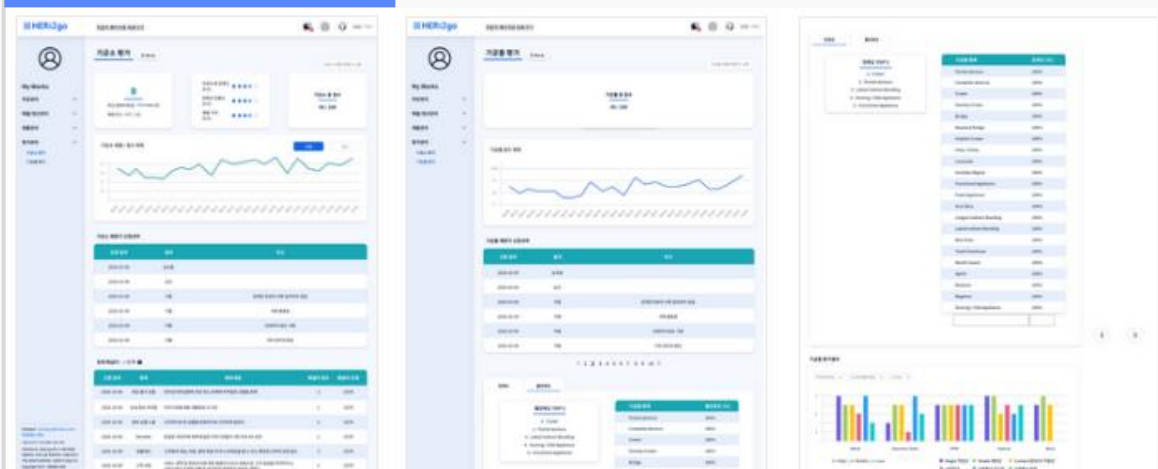
Seller profile settings



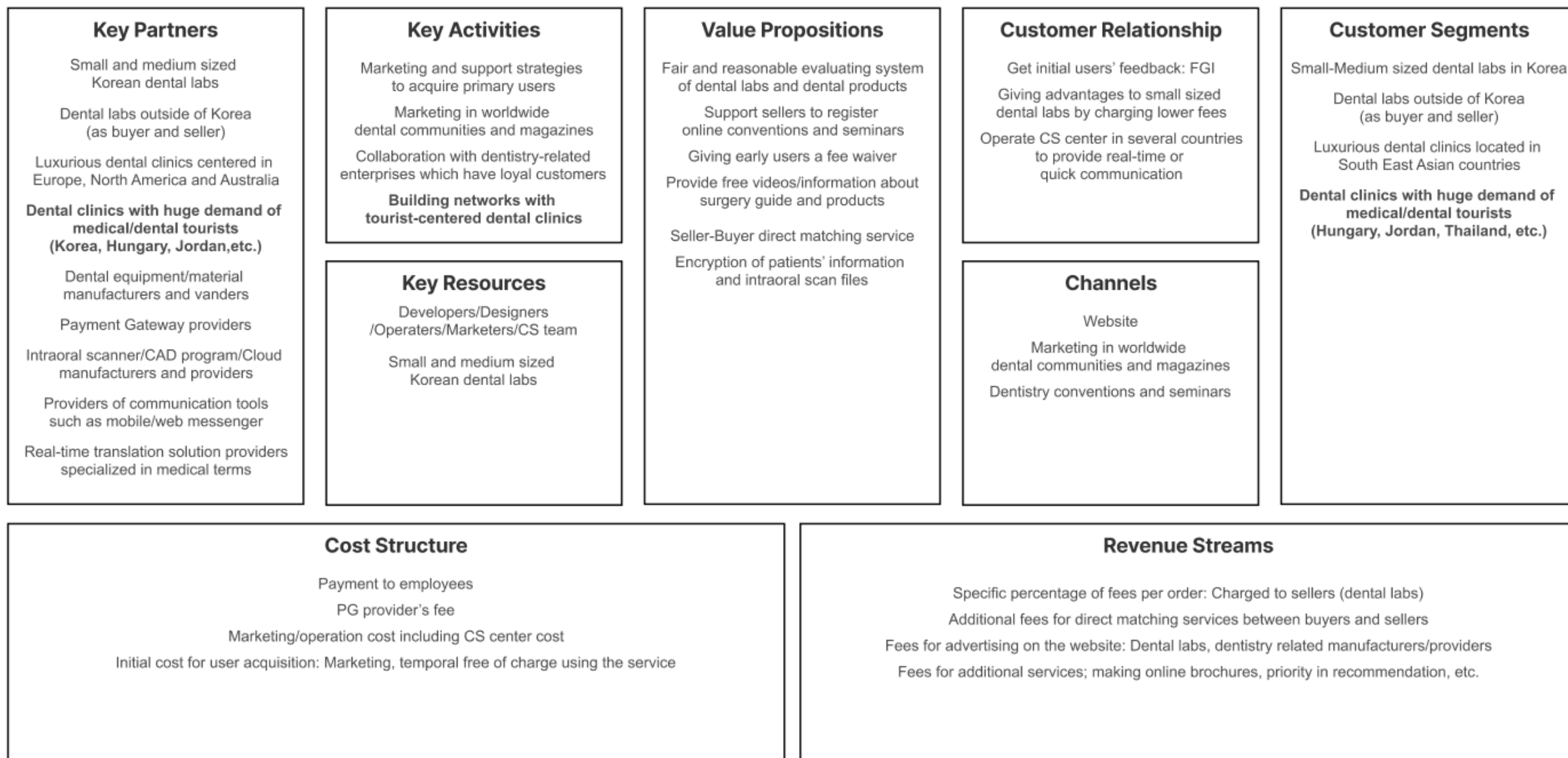
Order management



Statistics/Evaluation



Business 9-block model

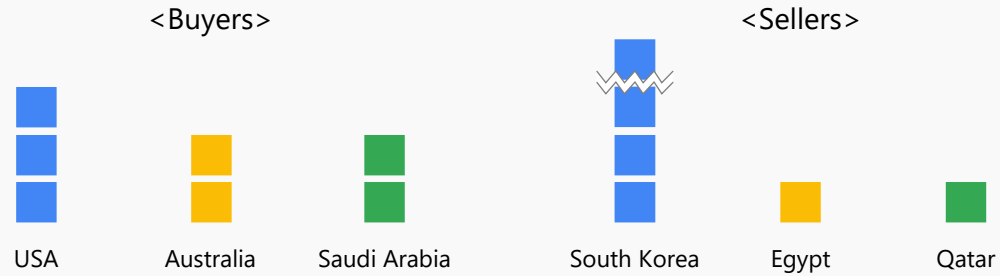


Use data analysis/user poll

Features such as lab evaluation were not applied in the first release. However, I analyzed user data and user polls for the product's coming updates.

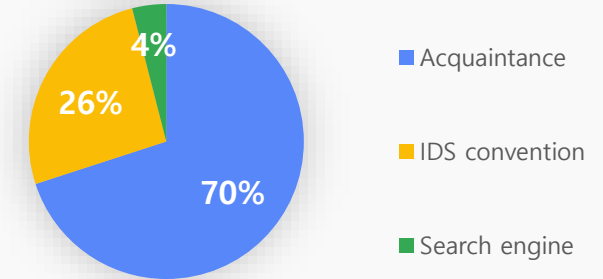
Nationalities of buyers/sellers

- There were unexpected countries, especially the sellers > [Analyze common market status](#)
- Marketing should be performed more to dental labs globally > [Join big dental technician events](#)



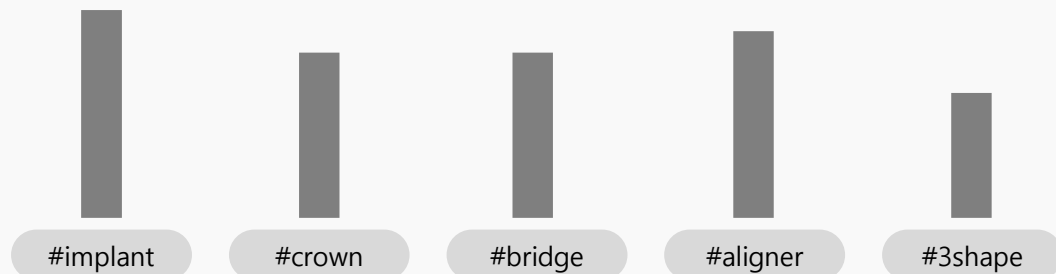
Service discovery

- Offline conventions are important in dental industry > [Participate and host convention/seminar](#)
- Sales channel should be widened to acquire more users > [Cooperate with marketing experts](#)



Main search keywords of buyers

- Buyers usually searched for product names > [Categorize products with more detailed options](#)
- Intraoral scanner/CAD programs are important > [Add separated inputs in seller information](#)



User poll

- We performed a poll of our users and acquired what kind of service/features they need
- Several features are considered in the next development

