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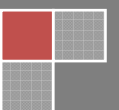
Product Platforms and Roadmaps

Thomas **Wamsteker**

Niels **Weggeman**

Jelle **Wories**

Rachel **Loop**



Concept

Our concept is a smartphone mount for your bike that allows handsfree access to your smartphone through speech recognition. This will make using your phone while cycling a lot safer, because you will have both hands to control the bike, and can operate it without having to look at the screen.

It will also display live information about your trip, the route, your speed and the weather.

While cycling, the bike mount will also charge your phone.

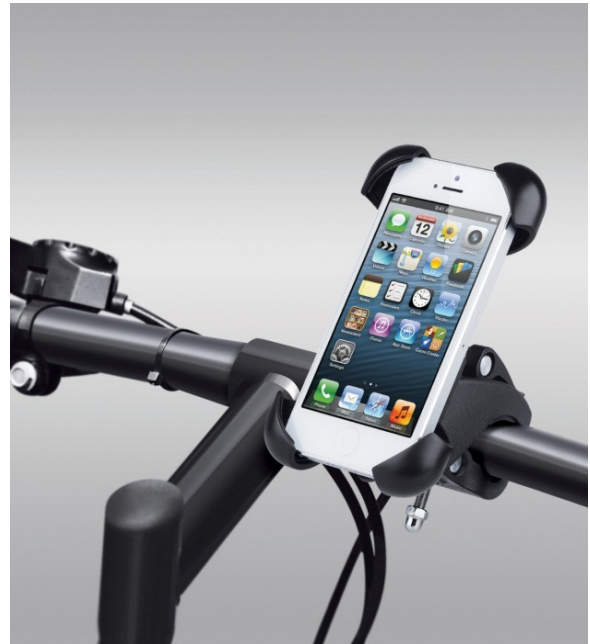


FIGURE 1: EXAMPLE OF CONCEPT

Persona



FIGURE 2: PERSONA

Robert

Age 50

Residence -Greenwich, United Kingdom

Occupation -freelance editor for a news agency

Hobbies -cycling, sailing and Geocaching

Family

- his wife Laura
- his two kids Chris and Lily
- their dog Cooper

Scenario



FIGURE 3: SCENARIO

Every day, Robert cycles 11 kilometres from his home in Greenwich to his work in Central London and back. On his way, he wants to listen to his favourite music and the radio.

For his job as a freelance editor, Robert needs to stay in touch with his news agency while he is on the road to a location or an event.

As he often goes sailing in the weekend, he needs to check the weather regularly. Robert has recently started doing geocaching with his kids. The GPS app on his smartphone helps them finding the coordinates they need during the game.

Desire and Problems

Desires

- Safe access to smartphone functions on the road.
- Charging the smartphone while riding.

Problems

- It is not safe to cycle while using a handheld phone.
- When held in the user's hand, smartphones are not protected against weather influences.

Value Ladder

The value ladder is a tool for finding what benefits there are to your concept. Why would people want to buy yours over other alternatives?

Functional properties

- **Charge while riding**
- **Handsfree communication, information and entertainment**
- **Headlight**
- **Weatherproof**

Functional benefits

- **Music**
- **Google Maps**
- **Calling / video communication**
- **Video recording**
- **Live information**
- **Speed**
- **Distance**
- **Weather**

Emotional benefits

- **Connectivity**
- **Easier use of entertainment**
- **Valuable information on the go**
- **New possibilities**

Values

- **Accessibility**
- **Connectivity**
- **Efficiency**
- **Usefulness**

Perceived Value

The Value Perception Analysis is a tool that allows you to acquire insights into how much the customer is willing to pay for your product. By asking the four questions that are demonstrated below, you can see exactly in what price range your product should be.

The figures this graph is based on can be found in the appendix.

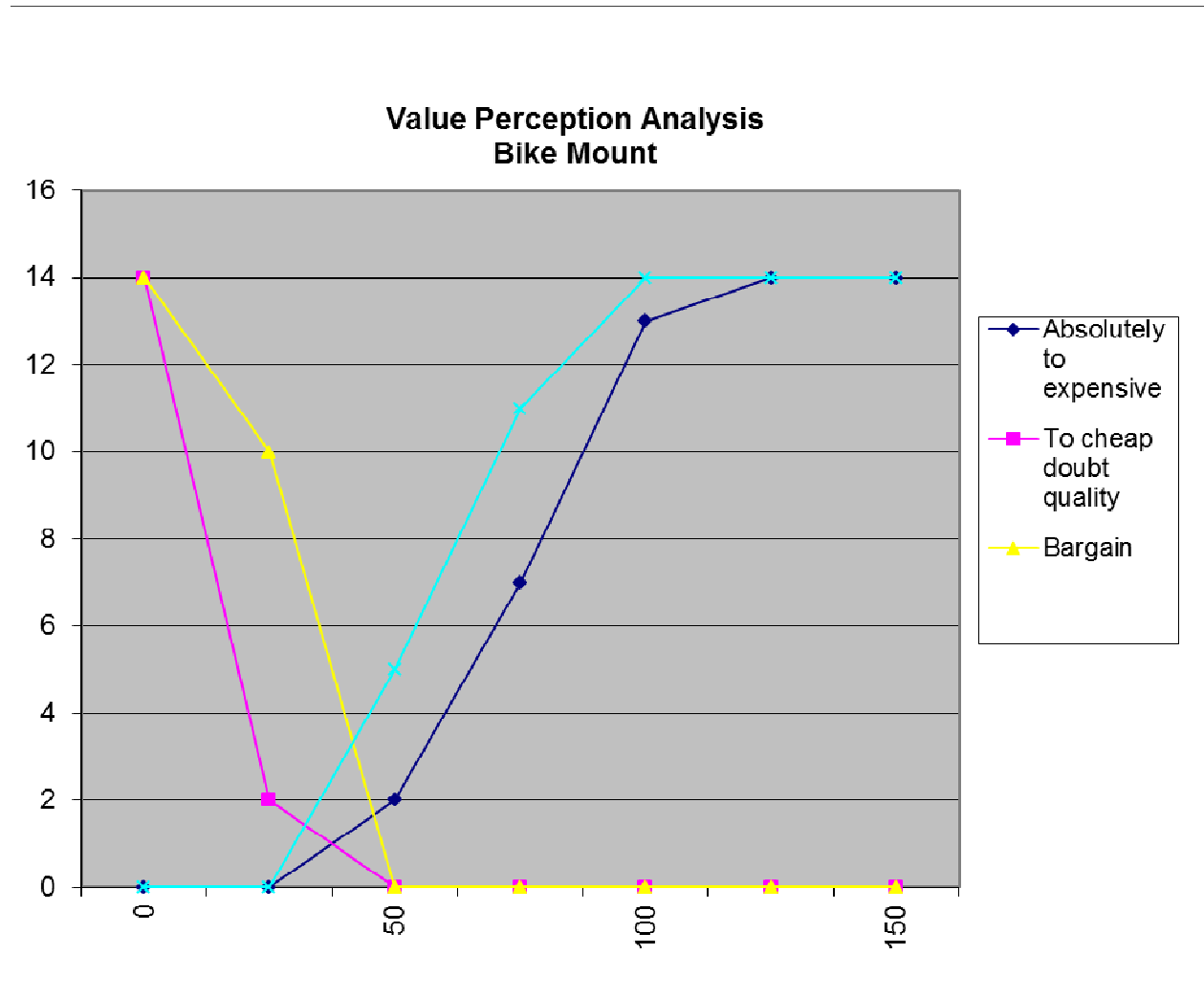


FIGURE 4: VALUE PERCEPTION ANALYSIS

Channels

As we currently envision the distribution of our product onto the market, we can use existing sales channels. This does not only save an enormous amount of investments in new shops, new employees and marketing, but it also speeds up the market introduction process.

Possible channels through which our product can be distributed are:

Telecom stores (Apple store, T-Mobile, PhoneHouse)

Currently, telecom stores (of both individual providers/manufacturers and multi-brand stores) already sell a large number of phone accessories. However, they mostly include cases, headphones, docks and chargers, while accessories for outdoor use are scarce (except for sports purposes). Our product could therefore be a good addition to the collection of telecom stores.

Bike and outdoor stores (Bever, Halfords, local bicycle dealer)

Another logical distribution channel is the bike/outdoor store. Most of these stores already stock a range of products that are designed for safer cycling, which means that our products fits well within the existing supply of the stores.

Multimedia stores (Mediamarkt, Saturn, BCC)

The channel of multimedia stores follows on from the telecom stores channel, as they supply a similar range of phone accessories. An advantage of a multimedia store over a regular telecom store is that they usually are cheaper and allow customers to buy multiple appliances and accessories simultaneously.

Webshops

The demand for online available products is rapidly increasing, making this an evident distribution channel for our product. An advantage over regular stores is the large availability of products and for the customer, the ability to buy the product without having to leave their home. The advantage for us as the manufacturer is the fact that the product can be directly shipped to the customer, without additional retail channels.

Money Flow

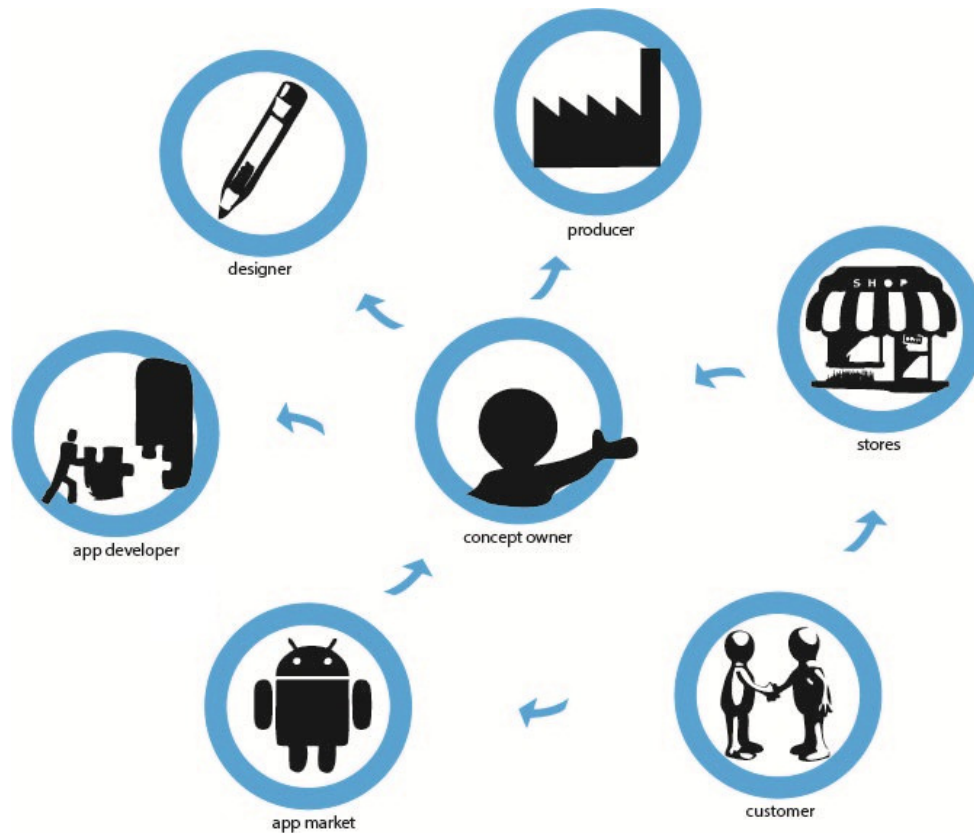


FIGURE 5: MONEY FLOW

The designer of the dock fulfills the wishes of the concept owner in the design. The concept owner brings his idea to the market. The producer makes the design into reality. The customer buys the dock and perhaps some apps that go with it. The app developer develops some apps for the dock. The app market sells those apps. In the stores the dock is sold.

The owner of the concept pays the designer to design a product, then the owner of the concept lets the producer create the product. The concept owner receives money from the stores which receive money from the customers who buy the product. The owner pays the app developer to develop apps, the developer also receives money from the app market every time a customer buys the app. The app market receives money from the customer and pays a part of it to the concept owner.

Competition

There currently is already a wide range of products on the market that offer similar functions for smartphone users. However, none or very few products offer the same amount and/or quality as our product. We do not market our product as a completely new or revolutionary product. Instead, we distinguish ourselves from our competitors with an outstanding quality, performance and variety of functions.

Current competing products include:

GPS monitors (Garmin, Polar, Mio)

GPS bicycle computers are already on the market for several years, making them a good option for navigation on the road.

(Bluetooth) earphones (Sennheiser, Jabra)

For (wireless) communication purposes, it is possible to use Bluetooth earphones and headsets, which have already been used in cars for many years.

Existing phone mounts

Our product is far from a completely new concept, as smartphone mounts are already on the market since the first smartphone was introduced. We mainly distinguish ourselves from our competitors with the wide range of functions that our product has on offer.

Functions and Modules

To have a clear overview of what electronics and other parts must be in our product, we look at the functions our bike mount must have, and then look at what module this is. Below is a list of the functions.

Handsfree operation

We want to be able to control the bike mount hands free, because it's safer. The functions that we want to be able to control are calling, navigation and music. We thought that we would use a Bluetooth headset to connect to our device. For this, we need:

- ▶ Module → Microphone in Bluetooth headset + firmware speech recognition

The firmware for this speech recognition is often already in your smartphone, so we just need to connect this to our app.

Clip onto bike & weatherproof housing

The housing should fit on every bicycle, because this will enlarge our market, and it should be weatherproof and protect your smartphone against rain or other bad weather. For this, we need:

- ▶ Module → Universal housing that fits onto all bikes (or at least a lot)

Live information

We want the phone to give live information through the Bluetooth headset and via the screen of the smartphone. This information would include your cruising speed, the distance you have travelled, a map, and the weather. For this, we need:

- ▶ Module → GPS + software displaying info (app)

GPS is often already in your smartphone, so we should not need to add this to the bike mount itself.

Charging phone

The bike mount should also charge your phone while cycling, so people should be able to connect the bike mount in an easy way to an existing or an extra dynamo.

- ▶ Module → Power convertor from dynamo to docking station

Technology

After having listed the functions and modules, we can now list where we are going to get the parts from. Below, we have a scheme of the parts, how they are manufactured, and what they need to function. This gives insights into what we need to do ourselves and what should be outsourced to other companies. After this we can conclude what partners we need (for the outsourced assembly and manufacturing for instance).

Technology Tree

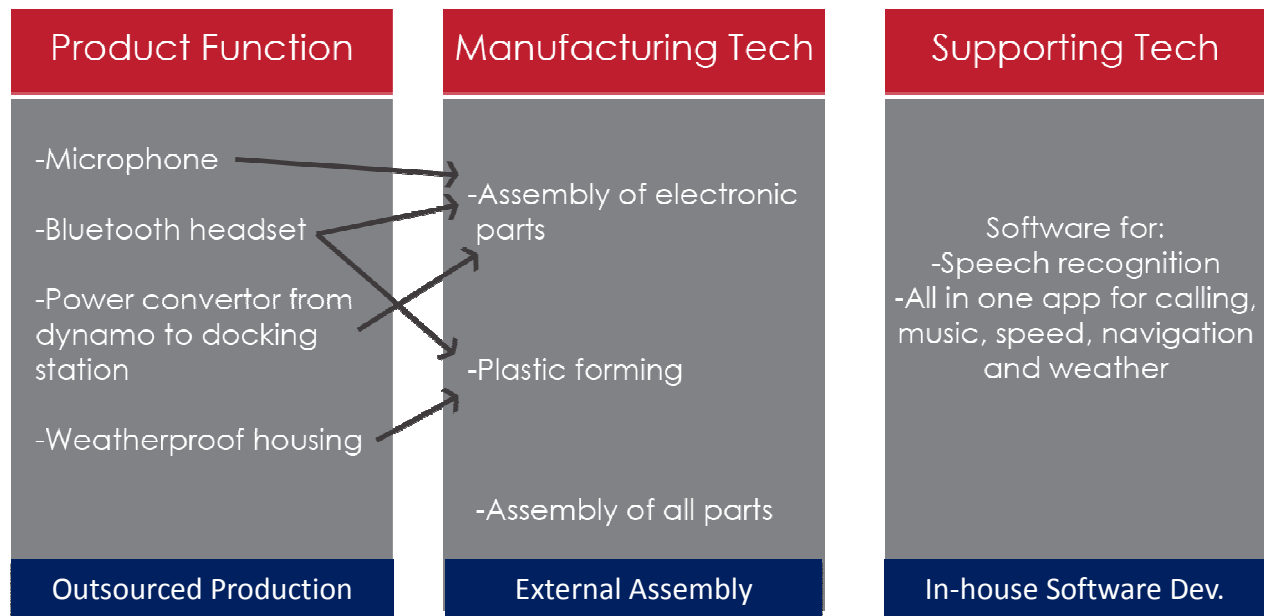


FIGURE 6: THE TECHNOLOGY TREE

Dynamics

The basis of our concept, clearly, is very simple; nothing more than a functional holder for a smartphone. This is what the competition offers as well, with possibly a weather resistant cover as added functionality. The docking function and the earpiece that we include are something entirely new on this market. These are the main winners in our product; the hands-free Operation through speech recognition, as well as the charge function through a connection to the dynamo. Our competition doesn't offer that, even though it is just another new combination of already existing technologies.

The technology that seems to be required does already exist; docking ports and bluetooth earpiece aren't something new, really. For charging, an alternative might be wireless charging through induction, which is still in development. This would allow for a more weather resistant and user friendly dock, but it is dependent on the developments of that technology in the near future. Furthermore, the voice recognition software which is required is already offered (to some extend) by Apple and Google.

Risk Analysis

To our product, the following risk factors apply; we have a new...

- Proposition
- Functionality
- Supply chain
- Business model

As all technologies we want to use are already existent and we are stepping into an already vivid (niche)market, we don't have to worry about the existence of the market. However, our idea includes newer, more complex technologies which are more expensive and of which is not yet confirmed whether it is what people want. We can see that the success of this product in this market relies on four different factors, which makes it slightly risky, but it could be worse. In order for us to be able to do a full analysis in percentages, we would have to do more user research. That will be, however, for another time.

Roadmap

In four years we hope that our product hit the market, everybody has a docking station on his or her bike and it is a daily used item. Seldom you see bikes without one, and it had become usual to enjoy some entertainment while cycling. There are new iterations with more functions and tools. There are even some features to maximize safety. Perhaps just as with cars it alarms you when you are in a dangerous situation. It might be possible to let your phone watch the environment and control the brakes for an emergency stop. There are several applications developed to maximize safety, comfort and entertainment on the road.

Appendix

Value Perception Analysis

	Absolutely to expensive	To cheap doubt quality	Bargain	Expensive but Reasonable
1	100	25	35	80
2	80	20	35	65
3	90	20	30	70
4	65	15	25	50
5	70	15	25	50
6	120	30	45	90
7	50	10	20	40
8	70	20	35	60
9	40	8	20	35
10	80	20	35	65
11	85	20	40	70
12	75	15	30	65
13	95	30	40	80
14	55	20	35	45