

Marketing Research Trash Holes



Introduction

The Trash Hole was originally designed for outdoor events like Solar where it was piloted. The product has gone through a development with many iterations: from infra red to ultrasonic sensors, from MDF to 100% post consumer PE & PP and the many tests it has gone through both in and outside office setting.

Now that its almost fully complete product, with its required documents and tests getting to completion, a market research is the next step. It is already clear that the outside events might be a possible buyer/renter for the Trash Hole, however it is still unclear in what other branches the Trash Hole could also find a home.

In this relatively short research, a few interviews were held with different branches that could be interesting for the Trash Hole. The companies are: Vue cinema, Effenaar, Van Kaathoven and Facet.

As preparation cases were described and the business model canvas was used to setup the topics that needed to be covered during the interview. Afterwards conclusions were drawn to be used in further ideation phases and price consideration for example

Cases

Amusement park/zoo/cinema

An amusement park or zoo or indoor playground or cinema or any other kind of permanent leisure activity is a perfect situation in which the Trash Hole can be implemented. These kinds of environment have one main thing in common: The guests or customers mostly visit once in a longer period of time. Therefore the experience gained with the Trash Hole will reach a broader audience and a new experience every day to the new guest which encounter it. Next to that it gives that little nudge towards recycling to the guest. In an amusement park for example the guest can recycle his PET bottle more easily due to the instructions on the Trash Hole and gets rewarded by doing so. This creates cleaner waste streams and a cleaner environment since the Trash Hole, because of these rewards, gives extra motivation to guests too throw their waste away. Lastly the Trash Hole gives your “Ugly and disgusting” waste bin a makeover that gives an extra bit ambience to the environment in which it is placed. The bin becomes an attraction by itself instead of the base function that it has.

To (further) enhance recycling in a company, the Trash Hole is a fun and instructive tool to throw a new perspective in the thought process. Most companies already have sustainability and recycling in their company, however some problems do occur when tests are done. A mistake that occurs often is that people have good intent and try to recycle, but make mistakes in their choices which can dispose a batch of waste to be burned. The Trash Holes will surprise the employees by the given sound reward and with their instructions will help and motivate the employees to recycle well and to regain the focus towards recycling. By placing the Trash Holes in the work environment, the employees will gain a fun interaction and an icebreaker for a conversation about recycling.

Company campaign

Cases

Secondary schools

Recycling is something that you have to learn. Where do you learn as a child? Indeed, at school. With the Trash Holes we give the students an easy and interactive way to focus on the topic of recycling by doing. With the instructions given on the Trash Holes the students are guided in making the right decision. The goal is also to create a habit for recycling by placing the Trash Holes in the students' environment for a longer period of time. If they have to do it at home, why wouldn't they have to at school? With the additional option of a few lessons around the recycling and sustainability subject, the experience and knowledge gained becomes even more complete. An addition which can help the students and the school to become greener!

At events the Trash Hole gives that little nudge towards recycling to the guest. The guest can recycle his PET bottle more easily due to the instructions on the Trash Hole and gets rewarded by doing so. This creates cleaner waste streams. The Trash Hole also creates a cleaner environment since it, because of these rewards, gives extra motivation to guests to throw their waste away instead of throwing it on the ground. Lastly the Trash Hole gives your "Ugly and disgusting" waste bin a makeover that gives an extra bit of ambiance to the environment in which it is placed. The bin becomes an attraction by itself instead of the base function that it has.

Events

Value proposition

1. For an amusement park/zoo/inside playground the addition of the Trash Holes focusses on further improving the experience that the guests receive. By adding the Trash Hole as a small attraction by itself, the simple action of throwing waste away becomes an experience. Next to that the Trash Hole encourages (younger) guests to throw their waste in the bin instead of on the ground. Apart from the base educational value that this brings to the guest, it may also relieve work from employees which otherwise would have to clean it up. The Trash Hole also helps towards a more sustainable approach within the company which can be used for marketing towards outside of the company.

2. At a cinema the Trash Hole focusses on people throwing their waste away instead of leaving it at their seats. The ultimate goal here is to refrain from as many waste at the seats so the employees need less time to clean the room, so they are less costly. The Trash Hole can also be customized to any advertising movie or the company itself to further increase the experience gained at the cinema/specific movie. The Trash Hole also helps towards a more sustainable approach within the company which can be used for marketing towards outside of the company.

3. (Secondary) schools have the most value found in the educational elements of the Trash Hole. Schools are portrayed as companies so they do not naturally recycle, however this conflicts with the educational core of a school. If the children have to recycle at home, why wouldn't they have to at school? By placing the Trash Holes in their everyday environment they can interact with the fun and engaging way to learn recycling. The instructions help the students to do it correctly and since they will recycle at both home and school it will become a habit. With the additional option of a few lessons about recycling and sustainability the experience, knowledge and awareness become complete.

4. Events gain value from the Trash Hole since waste is a relatively big issue at events. It can be thrown on the ground quite easily. Next to that the bins used are standard 240 L containers most of the time which are not appealing. By adding the Trash Holes on these containers the ambience at the event will become a little more complete with the additional branding and refraining from the "ugly" container, while improving the waste collection and recycling at the event.

5. A company can use the Trash Hole to focus on the recycling and materials used indoors and create awareness. For example you can keep track of how much paper is used or how much is correctly recycled. It then also stirs the normal work environment a bit up by implementing this surprising and new product.

Channels

Already active customers are the first contact points to discover the complete market for the Trash Hole. The Trash Hole now needs to be known in the outside world for people to gain interest in the product. The plan is to focus on these “warm” and already present contacts. By placing a trash hole in their environment as a thanks for their help in the past year the company will experience the Trash Hole to see its possibilities. After a few days of experiencing and playing with the Trash Hole an interview will be held to see if their branch is suited for a potential market for the Trash Hole.

1. Zoo

- a. Blijdorp

2. Schools

- a. Facet
- b. Eco-schools
- c. Schools connected to eco-schools
- d. Governance
- e. Almere
- f. Waste processors

3. Events

- a. RAI
- b. Eurosonic Noorderslag
- c. CSU

Next to these direct contacts a few branches have to be newly explored since they haven't been explored yet by E-Waste Arcades yet. Companies, amusement parks and cinemas are the main branches which remain vague.

To create the awareness that the Trash Hole exists, it has and will be placed at multiple events and congresses. It has been present at for example the Maker Faire and the Dutch Design Week.

Customer relationships

The customer receives an additional (few) Trash Holes in case of a broken Trash Hole. The customer will receive an explanation on how the Trash Hole should be used/stored/charged after an employee from E-Waste Arcades has installed the Trash Hole on site and has tested them. Next to that the customer will receive a use manual in which all the functions and actions are explained. There are also a few quick fixes present in the manual which the customer can try before replacing the Trash Hole by a spare one or contacting E-Waste Arcades. During the rental repairs are thereby kept to a minimum to refrain from (unnecessary) additional costs.

Revenue streams

The Trash Hole can be rented or bought. The customer naturally receives discounts whenever he rents more/longer. For both rental and buying the customer has the additional option for a customised branding and sounds. Regardless of the situation it is placed in the price remains the same. Where the money comes from can differ from the location it is placed. Facet can for example place the Trash Hole at schools.

The bodies for the Trash Hole are made at The Good Plastics Company. The Trash Hole is the further assembled by E-Waste Arcades by adding the electronics, brackets and banner. Sounds and branding are made internally as well. The Trash Holes are transported by E-Waste Arcades themselves, but the van used is rented (most of the time from borent). Next to these direct resources are the indirect resources such as the programs and computer needed to create the sounds, branding and coding and the office in which E-Waste Arcades works and where the Trash Holes are stored.

Key resources

The most central activity regarding the Trash Hole is creating awareness regarding sustainability and recycling. Since this is not important enough for most customers directly additional value has to be created as described under value proposition. The importance of recycling and sustainability needs to be communicated towards customers and to encourage them to communicate it outwards as well. In the end the true goal of E-Waste Arcades is to create awareness around these topics.

Key activities

Key partners

The unique producer of the completely recycled plastic bodies is a strong and key partner to the product. The nature of E-Waste Arcades is thereby reflected in the product since it can and is recycled material. Apart from that there aren't any key partnerships on which the company is reliant. Certain "warm" contacts, such as Facet, are a great setup however to release and improve the Trash Hole into the market.

Cost structure

The costs are generated by:

- Creating the body (external)
- Buying the electronics
- 3D printing the brackets for the sensors
- Buying the banner
- In case of rental: Depreciation
- Labour costs to implement the electronics, create the branding and sounds and the whole infrastructure in communication with the customer
- Transport

- Case explanation
- Customisation

Is the customisation option interesting for the branch or would they probably stick to the standard banners and sounds?

- Marketing

Is PR an important element of the company and can the Trash Hole bring additional value through this medium?

- Container vs Trash bin

The Trash Hole can only be placed on a 240 L container. Is this a constraint and does it need amending in the form of for example a smaller version, additional covers for the container or see if it is feasible on the present bins used?

- Temporary vs permanent

In the field of interest, would the Trash Hole be a permanent addition or temporary as a form of campaign or event?

- Budget

Is there a budget for sustainability stimuli? What would you think the Trash Hole costs? (After seeing the prices) Is this a feasible price that is considerable?

Topics interview

Vue - Jorrit Boogers

A big fat no. The cinemas do not separate waste and it is not a feasible option for the cinemas to start separating waste. The only plastic the company produces are the pet bottles and certain wraps. The pet bottles are however only 10 % or less of the consumers waste since the more popular drinks are served in paper cups such as Fanta and Cola. Therefore the function of the Trash Hole to provide cleaner waste streams is lost since there is no waste separation.

The value of less cleaning time leading to less working hours for the employee is also minimal. The employee has a hourly wage of 5 euros and it saves the employee roughly five minutes with cleaning. Therefore it has little value in saving time so in wages.

The final and for us most valuable aspect is the message that the Trash Hole brings forth. It brings additional possibilities for PR and advertisements. The costs that the Trash Holes bring forth however do not outweigh these values. The Vue has an active marketing department which can bring the same message to their guests with lower costs. Especially since the cinema has its own (huge) advertisement canvas in the form of their screens. They then directly speak to the audience instead of needing to appeal the user with the Trash Hole. The same goes for advertisements for movies. They can more efficiently get to the audience with other means than the Trash Hole for lower costs.

The manager thought that the costs for the product are 150 euros while they are 700 – 650. The message alone does not bring enough value to outweigh these costs and therefore the cinema is not a feasible buyer for the Trash Hole.



Effenaar - Maarten van den Berg

The conversation here was much more positive. They do not recycle yet and all their waste is residual however big steps could be taken here. Nearly all the waste produced by the customer is plastic. Here they are mostly pet bottles or plastic cups. The only residual waste produced would be the occasional crisps bag or snack. Therefore there is a case for the Trash Hole.

The company was already interested and searching for opportunities to become sustainable and green. This mainly since there is more pressure on events and event buildings to regulate their waste streams and footprint. Since so much of their waste is plastic it can be pressed into a cube. More material can be stored in the same space and it can therefore be collected less often. The plastic waste is also cheaper to collect than residual waste.

Even though costs are reduced by effectively separating the waste it probably doesn't come close to the costs of the Trash Hole, especially when used throughout the entire building. The message that comes forth however does become valuable for the Effenaar. It is a question if this investment is balanced by the societal impact that the Trash Hole makes, but it does bring this value. The question rose for how long the Trash Hole will live and this is still unclear. In case of purchase a service contract will be made to ensure a certain life time, but it is unknown what a reasonable time is for the product.



An idea that came forth was similar to the idea we had for the cinema. He proposed an idea where the “deliverers” of the waste products would pay for the Trash Holes with additional advertisement for this company. Since nearly all drinks are coming from Coca-Cola this would be the possible buyer. This would have to be something that needs further investigation from the Effenaar, however it is an interesting possibility.

He did not have an idea for the costs of the Trash Hole, however the prices given did not immediately scare him away. It is a big investment. That is certain, however the addition brings much for the societal influence that the company wants to establish.

Afterwards the proposed prices were sent to him and he would further discuss the idea with the CEO and possibly with third companies such as Coca-Cola.

The image shows the exterior of a building with a large, bold, white sign that reads "EFFENAAR" mounted on a grey concrete wall. Below the sign is a modern glass entrance with large windows. The windows reflect the surrounding environment, including trees and other buildings. A group of people is gathered near the entrance, and a blue trash bin is visible in the foreground. The overall scene is brightly lit, suggesting daytime.

Christmas special

As a way of saying thanks to partners and customers a Christmas and new years special was made. This was a fun banner representing both holidays accompanied with a new set of sounds.

The Trash Hole with the new customisation was placed at the companies that are mentioned after this.

The goal was to introduce these companies, that already know and like what E-Waste Arcades does, to the Trash Hole by placing it in their working environment. Through experiencing and talking about the Trash Hole they can give more in depth feedback on the product and introduce it to more people in their circles.



Van Kaathoven - Matanje Schepers

The product was brought to Van Kaathoven for the Christmas special. Therefore the whole explanation was further supported by a demonstration and the ability to touch, play with and see the Trash Hole in person. The conversation partner, Matanje Schepers, is already familiar with E-Waste Arcades and its vision and is therefore able to help find bottlenecks in our approach and product.

She already knew about the Glory Holes and therefore I could immediately dive into the possible branches for the Trash Holes. She was very optimistic in terms of branches. Basically everyone that has sustainability as a point of attention will see and like the value in the Trash Hole. This could be events, offices and creatives.

What she did however specify is that she would mostly see value for indoor areas. This thought came forth since she thinks that the banner would easily get damaged by weather, both sun and rain. This is indeed a detail in the product that we haven't thought through yet. This would only affect long term rental. In a purchase case this is a given regardless of positioning of the Trash Hole.

A solution that Matanje proposed was a cover that could be attached to the Trash Hole with elastics. This is easier for the using companies to use and replace, but the material costs will rise. This cover will be less sturdy and will probably connect less neatly to the Trash Hole. An interesting question that arose is how big the bottleneck is for the companies to replace the banners,



since in large numbers it does take a bit of work. A solution would be to implement this in a service contract, so when the products are tested the banners are immediately replaced. Problem being that these visits would probably occur more frequently and take more time.

Another factor are the employees that in the end will handle the Trash Hole. They have to be taken into the thought process in how to protect the materials and electronics. We have off course prepared a use manual, but ultimately the Trash Hole needs to be fool proof. The electronics need to be safe in any way the Trash Hole is placed on the bin.

The prices were still a risky factor however. She thought the price for one Trash Hole would be around 200 euros. The costs were surprising however she was still optimistic, since she didn't know how much money would be available for these kind of fun additional experiences. Her estimation does however further give the insinuation that the prices need to get lower before it gets interesting for renters/buyers.

Afterwards the proposed prices were sent to her and he would further discuss the idea with colleagues.



Facet - Edgar Willems

Similar to Van Kaathoven, Edgar was already familiar with the product and E-Waste Arcades. The Cinekid version of the Trash Holes had already been at their office for a few weeks. This one was replaced with the christmas special.

During the interview Edgar's enthusiasm was clear. He likes the product a lot and tried to help to find the appropriate market and bottlenecks for the Trash Hole.

The municipalities are the most likely place to go towards next to schools. The municipalities receive budget to battle against litter and therefore money is less of an issue. He thinks that the smaller events would benefit from these investments since the municipality can easily buy and distribute the Trash Holes whenever they are needed.

Schools, both elementary and secondary, are also interesting areas for the Trash Hole. Facet can buy or rent the Trash Hole with the same budget earlier described and then place them at interested schools. The channels are already there, so the only action that needs to happen there is a "Yes" from a school.

For longterm use some aspects have to be thought of. As was noticed during the interview with Van Kaathoven, the services that would apply in case of purchase would have to be more thought out. In a permanent place like a school the sounds and maybe even the banner would have to be replaced every now and then to keep the same impact.



A possible solution would be to create subscription that would replace the tracks on a regular basis. The frequency would depend on the target group. For example 14 till 18 years old would have to be weekly or even daily.

The IOT has to be developed further for this concept to work since it is not a feasible option if you would have to replace the tracks manually for x amount bins every single day.

Another addition that would help the Trash Hole are lessons and maybe some sort of competition that brings extra attention and therefore value to the Trash Hole. This would trigger schools more easily to use the product.

The clear options that Edgar gave for purchase however could also be done through a rental model. Both the municipality as Facet would purchase the Trash Hole to then place the Trash Hole temporarily in various places. Since purchase brings many implications like a service contract and reliability it is most likely easier to start with rental. The municipalities and Facet would then rent the product when needed instead of owning it themselves.



Conclusions

- Cinemas are not interested due to little separation possibilities and focus on profit
- Pop stages, waste managers, schools and events are directions that are interesting as a market since the container isn't a bottleneck and sustainability/ education is already a focus
- In case of purchase several aspects have to be thought of like a service contract and replacement of tracks and banners
- Until now the purchase cases could be rental if there is clear communication and if the prices are worth it. This might be the most appealing for us since the product is new and bugs might still appear.
- The only case that would be permanent and therefore a purchase would be the Effenaar. The aspects that need further investigation are interesting to do now to also be able to supply to pop stages.
- A subscription element would be interesting to replace sounds (and maybe banners) on a regular basis, but this does require the IOT to be able to do this.
- "Waste providers" like Coca-Cola could be a possible fund for pop stages/ amusement areas to place the Trash holes.
- The prices scare people at first.
- The employees that will handle the Trash Hole need to be taken further into consideration. How will they use and possibly damage the Trash Hole?