Converting Impulse Buying into Impulse Giving: The Donating Machine

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Abstract

This paper analyzes how digital techniques, in particular digital games, can be used for fundraising in different public places. With such approach, charities can reach a larger public and collect money in a cheaper and more efficient way. We propose a solution, based on research on donating behaviour and impulsive buying. The conclusion can be made that people need to have a positive emotional status to be triggered for impulsive donating behaviour. Using digital games, peoples positive emotional status can be triggered, which leads to impulsive donating behaviour.

Keywords

Charity, donating behaviour, digital techniques, digital games, vending machines

1. Introduction

¹ The two hundred biggest charities in the Netherlands spend €135,6 million on fundraising.² That is 14.9% of the total income of all charities (€912,9 million). There is not much information where this money is spent on and how efficient the used fundraising strategies are. It is time to find an efficient and a fun way of fundraising by using the possibilities which digital techniques offer.

Charities collect money using different forms of media. Most charities use these media in the same way. People can donate by transferring money, write a cheque to a special bank account or the old fashion way by collecting door to door. However, digital techniques, like the internet have introduced other donating possibilities. By clicking on sponsored banners, people can donate to charities, without giving money themselves. Also websites give people the opportunity to find more information about projects, goals and other news concerning the charity.

In many environments we are made aware of what is happening in the world. We are confronted daily with charities via commercials on radio, posters in public places, TV shows that support charities, etcetera. But there are still some environments in which we are isolated from outer elements, and only our thoughts that concern ourselves are important. For example, in a shopping mall, most persons think of nice clothes or things needed from the supermarket. This environment gives an opportunity to trigger people for donation. Additionally, environments like canteens, bars, cinemas, theatres, amusement parks can be thought of as places where people can be triggered for donating behaviour.

Another interesting aspect of these environments is that they contain triggers for impulsive buying, e.g. vending machines. Seeing these machines can give people a need for instant satisfaction. They spent money on something without spending a lot of time thinking if they really need it or not.⁵ We want to incorporate this impulse behaviour habit of people, which will be discussed in section three, into a strategy for fundraising. An important step is to find out how digital techniques can be used to influence donation behaviour in environments where people are not (yet) triggered to make donations. To find an answer to the question if digital techniques can positively change donating behaviour it is important to find out which factors influence donating behaviour. We will discus the influencing factors of donating behaviour in section two and the advantages of digital techniques in section four. Besides that we have to find out if impulse buying can be transformed into impulse giving.

2. Influencing Factors on Donating Behaviour

Charities nowadays use different techniques for persuading people to donate for a good cause. There has been a lot of research about these factors, so charities can adapt these factors in their way of communicating with their audience. Charities often use a technique called RFM analysis³ to determine their target selection. RFM stands for recency, frequency and monetary value, and predicts if people will respond to the mailings of the charity. But in some cases, it is not the people who are already donating that they want to attract. An interesting target group are people who do not donate regularly yet, but are likely willing to spend money for a good cause. To catch the attention of this audience, it is important to know which factors are persuading people to donate.

René Bekkers defended a PhD thesis on donating behaviour in the Netherlands⁴. In his survey he concludes that donating behaviour is more dependent on social circumstances than personal factors like income, age, education, religious involvement and gender⁵. These factors are normally good predictors for donating behaviour, but in the experience of René Bekkers they are not the only predictors for donating behaviour in public places, because of the great variety of audience in these environments. The factor mostly influencing donating behaviour is the emotional aspect. When people are in a positive mood or environment, they will donate more. René Bekkers argued that using only empathetic triggers will not have a positive effect on attracting people for altruism. Other research however, shows that using empathetic attraction does positively affect willingness to donate.⁵

In another study aimed at understanding the motivations of donating behaviour (Harry Taute⁶) it was concluded people have the urge to achieve something or want to be recognised as a good person in their social environment. They try to achieve this status by donating money.

Secondly, when there are no direct social rewards, such as recognition as a good person, a donor can get another kind of reward. This can be an egoistic compensation, feeling better because they did something good for the world. Also, he concludes that "emotion and empathy drive prosocial behaviour, rather than cognitive information".

Because the difference in conclusions in research about donating behaviour, we will use the fact of emotional feelings of people as an important factor of donating behaviour. Overall, research shows that when people are in a good mood, or having fun, they are more willing to donate.

3. Impulse Buying

Impulse buying is described as a battleground between emotions and cognitions⁷

The reason people are buying on impulse is because there is some kind of attraction between the customer and the service or product. People do not have a direct need for the product, but want to have it instantly. They are in some way emotionally attracted to the product and want instant gratification. It gives them some thrill to get the product directly, in other words a better mood and higher self-esteem.⁵

Impulse buying depends on some personal factors. If the emotional state of a person leads to pleasurable feelings, there is an increased possibility of unplanned spending. The better the mood of a person, the higher the risk of impulse buying. Another factor is age. Younger people buy more often on impulse then older people. Older people are often able to resist special offers. There is a difference between men and woman also. When a man buys something on impulse, it often is for personal reason. Women however, have often more social reasons to buy on impulse.

Impulse buying often leads to a feeling of guilt, because the purchase is not really considered. There is also the feeling of wasted money. The guilty feeling is transformed into a good feeling however, if someone knows the impulse purchase leads to a positive reaction for someone else 5.

Vending machines.

Vending machines are a good example of a trigger for impulsive attraction. It gives people an easy, fast and efficient way to buy something on impulse. When they have the urge to buy something from the machine, the only thing they have to do is pay, and they get something back for it instantly.

Another big advantage of vending machines is that no other people are involved, except the buyer. The digital techniques vending machines use, makes it unnecessary for a salesman or cashier to support the transaction. This makes the time it takes to get instant satisfaction a lot shorter.

Donating behaviour and impulse buying.

Impulse buying and donating behaviour have some factors in common. They both depend on the emotional status of the user. To satisfy the user, both techniques demand instant gratification in some way. Donating behaviour will possibly deliver a more emotional gratification, while impulse buying mostly gives some physical and emotional gratification.

An interesting approach for charities to find a new way of attracting donors is combining impulse buying with donating behaviour, to trigger people for impulse donation. The use of the additional advantages of vending machines is recommended to implement the combination of these techniques in an efficient way.

4. Digital Techniques

With the use of digital techniques it is possible to create many different combinations of triggering information for charities. Digital techniques can make collecting money much faster, cheaper and safer. A TV commercial costs much money. Getting people collecting money door to door takes much time for not that much money. And informing people on the street can be very annoying and will not be appreciated by many people. It is possible to offer the user a digital way of making a donation, without annoving them, or bothering them unasked. The right way to get people donating is to attract them to something they like and something they decide themselves to do.

Advantages of using digital techniques for charities are:

- Animation. Movies and animations give an extra dimension on attracting people.
- Information. The information to persuade people to donate can be delivered in different forms, which will not make it static and boring.
- Interaction. By using different types of media and a well-chosen user interface the machine will interact with the user, instead of being a static machine.
- Adaptation. The different types of charities can be changed relatively simple. As a result, charities are likely to generate more income in specific environments or at specific times.
- Combination with other use. Other digital techniques can be used to attract more users or to give more information, such as through links to charity websites.

A disadvantage of digital techniques is that not everyone is familiar with such technologies, e.g. elderly people. For this reason the interface of the machine must be simple, user friendly and easy to use.

Games.

A digital technique that encourage positive feelings to users are games. Games are fun to play, and people enjoy themselves by playing games. Mark Prenskey⁸ gives twelve characteristics that make digital games so engaging. Some of these characteristics give a good description how digital games can provoke the influencing factors for impulsive donating:

- 1. Games are a form of fun, giving us enjoyment and pleasure.
- 2. Games are a form of play, giving us intense and passionate involvement.
- 3. Games have goals, giving us motivation.
- 4. Games are interactive, giving us something to do.
- 5. Games are adaptive, giving us flow.
- 6. Games have outcomes and

feedback, that teaches us something.

- 7. Games have win states, giving us ego gratification.
- 8. Games have conflict/competition/ challenge/opposition.
- 9. Games have representation and story, giving us emotions.

These factors correlate with the factors that encourage impulsive donating behaviour. As a result, the use of digital games can help triggering people to donate on impulse.

Mark Prenskey⁹ describes that mini games are (almost) always trivial. But the fact that they are (almost) always trivial does not make them useless. They work good for relaxation and breaks, exercising the brain and making specific points. The point Prenskey makes, is that mini games may not always be suited for learning, but are a good way of informing, relaxing or making a statement. This is what we try to achieve.

5. Comparable Projects

Besides the old fashion methods of charities to trigger people, such as posters, commercials and mailings there are some variants that use new technologies.

Charities themselves are looking for new ways to trigger people to make donations in unexplored environments by using new techniques. For example, a Dutch charity called "De Zonnebloem" is a volunteer organization that supports people with a physical restriction. With cooperation of a technical company, they transformed an empty bottle deposit-refund machine¹⁰. With an extra button the customers are able to donate the refund amount to the charity instead of keeping it themselves. Another example of the use of digital technology for donation can be found on the Internet. Web sites like TheHungersite.com¹¹ enable people to make a free donation by clicking on sponsored banners. Another web site called Digitalcharity.com lists all sites with the possibility of "free-click-donating". Charities themselves make it possible to donate a larger amount using online payment methods such as Paypal or online credit card payments.

Also the use of small games is gaining interest from different charities. Warchild uses a small online game to extend their reputation to a larger audience¹². By attracting people in a fun and nice new way, they learn about the charity in a different way.

Purposes of vending machines other than using them for selling soda or candy are getting common. Vodafone uses vending machines to sell pay-as-you-go mobile phones¹³. Even Nike is experimenting with the use of vending machines to sell footballs in public places¹⁴. The largest variety of strange usage of vending machines can be found in Japan¹⁵.

6. The Game Donating Machine

We developed a machine that can be placed in public places next to vending machines. To transform impulse buying into impulse donating was the aim of this project. People use vending machines to buy items on impulse. Our machine triggers users to spend their change on playing a game. In this way they also get directly something back for their money, in other words, instant gratification. The user gets to see a menu on the screen where he or she can make a choice out of three different games. The games in this concept design are called "save the whale", "make love, not war" and "save the trees".

By using the selection button the player chooses the game that suits him or her the most. After the introduction, the game starts.

After the game ended by winning or losing, the player gets the message that the money spent to play this game will be donated to a charity with the same subject. So the money spent on "make love, not war" will be donated to Warchild, the money spent on "save the whale" will be donated to Greenpeace, and the money spent on "save the trees" will be donated to WWF.

To get the result of instant gratification first as normal vending machines do, it was chosen to inform the player about the donation after the game is played. In this way the user will not have the feeling of wasting his money to something he or she will see no results of as feedback, and to have an extra special surprise element after the game play. Because similarity, or, feeling of identification and empathy increases the like hood of prosocial behaviour¹, the user gets the possibility to choose a game that suits him or her the best. So they decide to what kind of charity they will donate, without knowing in advance they are donating.

7. Implementation

The concept of the Game Machine is a homemade machine, having the same size and exterior as a normal vending machine. The interior is build up from a computer containing the games and animations. The front of the machine contains a coin acceptor, three buttons functioning as the menu for the different games and a big red play button to use during the game. All the buttons are connected with the printing plate of a keyboard, so when they are triggered, a signal goes to the computer to take action. For the coin acceptor an infra-red sensor is used in the prototype, because a generic coin acceptor was too hard to get for this prototype.

The games are very simple. The player is invited to hit a target with a certain object. The object is released by hitting the big red button. When the object hits the target the player wins, otherwise he looses. In this way playing the game is fun and will not take a lot of time. The player goes to the next level if he wins the game. The next level looks the same as the first one, but the speed of the game is higher. Every game have maximum three levels before the user will be informed about what is going to happen to the spended money.

The machine will be placed next to the normal vending machines. This because these machines already trigger people to buy something. By using animations the machine will attract the attention of the buyers. They will be persuaded to use the change they get from the vending machines to use for playing a game.

Playing games in public spaces is becoming a common phenomenon. Machines like "photoplay" can be found more and more in public places. People can play known games on these machines for fun. Also pool tables and soccer tables are a well known examples of often used games in public places.

A small group of students tested the Game Machine in an informal test case.

8. Discussion

We investigated which factors are important for triggering donating behaviour. Intensive research led us to the conclusion that there are a couple of different views about these factors. The thing they have in common that the emotional aspect is of influence for altruism. Also influencing factors on impulse buying were investigated, because vending machines are an efficient and fast way of selling products with low costs and low maintenance time.

This research was done to find a way of transforming impulse buying into impulse donating. Common ways of donating attraction are often not very efficient and do not use new techniques. The combination of impulsive donating and the use of digital games lead us to the idea of the Game Machine.

The Game Machine triggers people who are attracted by normal vending machines to spend money on food or drinks to use their change for playing a small game. By choosing the game, they actually choosing the charity they are going to donate their change to, without knowing this. After the game ended, the user is told that the money they spend on playing the game is donated to the designated charity. This could stimulate them to learn to what other charities the other games are coupled.

It is possible that people buying from vending machines will not take the time to play a game. Vending machines are a possible buying place to buy something quickly, without having a conversation with a salesman. If the animations used in the prototype do not attract people enough, there is a chance people will not take the time to use the machine. If this will be the case, the animations have to be designed differently.

By using the machine in a public environment and asking users to give feedback on a website, we can learn if people like the surprise of donating their money without knowing before they play. In this way we can research if this is a right approach of persuading people to donate.

9. References

¹ **Bekkers, R.** (2004), 'Nee heb je, ja kun je krijgen': de effectiviteit van fondswervings- en rekruteringsstrategieen van maatschappelijke organisaties". Mens & Maatschappij. (Dutch)

² **CBF** (2003). *Jaarverslag 200*2. Amsterdam: Centraal Bureau Fondsenwerving.

³ Jedid-Jah Jonker, Richard Paap, Philip Hans Franses (2000), Modeling Charity Donations: Target selection, Response Time and Gift Size. Econometric Institute Report.

⁴ **Bekkers, R.** (2004): "Giving and Volunteering in the Netherlands: Sociological and Psychological perspectives". Dissertation, Utrecht University.

⁵ **Bekkers, R**. (2005), '*To give or not to give, that's the question'*. *How methodology is destiny in Dutch giving data.* Paper prepared for submission to the Nonprofit and Voluntary Sector Quarterly. Page 2-4

⁶ Harry Taute, Shaun McQuitty (2004), "Feeling good! Doing good! An exploratory look at the impulsive purchase of the social good". Journal of marketing THEORY AND PRACTICE.

⁷ Hoch, Stephen J. and george F.Loewenstein (1991), 'Time- Inconsisent Preferences and Consumer Self-Control' Journal of Consumer Research

⁸ **Prenskey, M.** (2001), *'Fun, Play and Games: What Makes Games Engaging'*. From Digital Game-Based Learning.

⁹ **Prenskey, M.** (2005), *'In Educational Games, Complexity Matters'*. Edited version published in Educational technology. Vol. 45 No.4.

¹⁰ **Marketing Online** (2004), "Statiegelddonatieknop voor de Zonnebloem", Article about a Dutch charity ("De Zonnebloem") project (Dutch) <u>http://www.marketing-</u> online.nl/nieuws/ModuleItem33611.html

¹¹ **CharityUSA.com** (2000-2006), *"The Hungersite"* Website with an overview of free online donation links <u>http://www.thehungersite.com</u> ¹² **Warchild**, "Hoop voor Vrede" Online game to gain publicity for the charity Warchild (Dutch) http://www.hoopvoorvrede.nl/

¹³ **Thomas Ricker** (2005), "Vodafone introduces first mobile-vending machines in U.K", Engadget. Vodafone introduces first mobile-vending machines in U.K. http://www.engadget.com/entry/1234000797065342

<u>http://www.engadget.com/entry/1234000797065342</u> /

¹⁴ **Huai Bin** (2005), *"Nike "Play To Win" football vending machine"*, Posted in by Huai Bin at: <u>http://www.sixthseal.com/2005/02/nike play to win</u> <u>football_vend.html</u>

¹⁵ **Douglas S. Mann**, Vending Machines of Japan http://www.photomann.com/japan/machines/

Interesting Literature

Jacqueline J. Kacen, Julie Anne Lee. "The Influence of Culture on Consumer Impulsive Buying Behaviour". Journal of consumer psychology, 12(2), 163–176

Nick Wingfield (2005), "Buying an iPod from a Vending Machine". Staff Reporters of THE WALL STREET JOURNAL, Page D1 http://www.zoomsystems.com/WSJ.html

Angela Hausman (2000), "A multi-method investigation of consumer motivations in impulse buying behaviour", Journal of Consumer Marketing Volume 17 Number 5 pp. 403-426

Beatty, Sharon E. and M. Elizabeth Ferrell

(1998), "Impulse Buying: Modeling Its Precursors" Journal of Retailing, 74 (2), 161-191.

Cobb, Cathy J. and Wayne D. Hoyer

(1986), "Planned versus Impulse Purchase Behaviour" Journal of Retailing, 62 (4), 384-409.

Dittmar, Helga, Jane Beattie, and Susanne Friese (1995), "Gender Identity and Material Symbols: Objects and Decision Considerations in Impulse Purchases" Journal of Economic Psychology, 15, 491-511.

Rook, Dennis W. (1987), "*The Buying Impulse*" Journal of Consumer Research, 14 September, 189-199.

Weinberg, P. and W. Gottwald (1982),

"Impulsive Consumer Buying as a Result of Emotions" Journal of Business Research, 10, 43-57.

Anderson, Tom (2005), "New breed of vending machines encourage healthier snacking" (cover story). Employee Benefit News, Vol. 19 Issue 7, p1-40, 3p, 4c;