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Thesis

Gamification: A potential game changer within the field of charity

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Abstract

During the last decade, there has been a huge technological development, and people are now very dependent on technological tools in their daily life. For this reason, huge opportunities for business to connect with their users in multiple ways have occurred. One of the tools that have emerged is gamification, which is a tool using game elements in a non-game setting to increase engagement, motivation, and loyalty towards customer, employees or student. This study investigate whether gamification can be used in charity to create more engaged donors, which will further create a higher generosity from donors. An investigation on *Prior knowledge, Personal experience,* and *Personal values* towards *Intention to give* has been analyzed, and whether the variables *Consumer confidence* and *Player types* could affect these relationships. The study has found a positive effect of gamification towards the respondents *Intention to give*.

1.0 Introduction

Living in one of the best countries in the world (Human Development Report, 2015), we both feel obliged to give some of our wealth to people that are struggling in other, less wealthy parts of the world. The easy way out, to get a better conscience, is to give to charity. Preferably, a monthly amount that is withdrawn from our account so we do not need to think about it anymore. The way many people are distancing themselves from their charitable act, got us wonder. What if people could give to charity and simultaneously become engaged in a specific cause by doing so? This would arguably create an increased awareness towards philanthropic work. A concept that has been used to increase engagement and motivation, and change user behavior in several settings the last 15 years, is gamification. Several big organizations, in different industries have implemented gamification either to engage their customers (Nike and Pokémon GO), to motivate their employees (Bluewolf), or to increase learning to their users (Kaplan university). In this master thesis, gamification will be used to see whether it can increase donors' engagement and intention towards giving money to charity.

We are marketing management students, and share an interest in how marketing tools can change behavior of both customer and employees. Growing up in the 90s as Generation Y, and always having access to games, internet and a generally technological day-to-day life, has been a big part of our life when performing all sorts of tasks. Statistics shows that this technological trend also applies to charity. For instance, National Philanthropic Trust found evidence that online giving grew by 13.5% in 2013 (National Philantrhopic Trust 2013). As an example, GlobalGiving, a crowdfounding community for NGO's, have implemented an online platform that uses feedback and point systems aiming to increase attention towards NGOs that perform well, as well as making it possible for donors to choose between multiple projects. Introducing techniques used in games in a non-game context is something we truly believe will have a positive effect on the important field of charity, since it could open up a new and effective way of collecting money to charity projects, as GlobalGiving is an indication to. Hopefully our study will be of relevance for both donors and charitable organization in the aspiration of helping less fortunate people all over the world.

1.1 What is gamification

Gamification has emerged due to the incredible success of *games*. The reason is the undisputed fact that games more than often manage to engage and motivate people in a certain way. Therefore, should it not be plausible to adopt the things that make games successful into other areas? Over the last 15 years, the concept gamification has become a major research of interests in the business and marketing sectors, and evidently there is an increase of companies in different sectors implementing the phenomenon, such as Allied Global Holding Inc. (financial service), Deloitte (consulting), Samsung (consumer market) and LinkedIn (social media), only to mention a few. Games have been used throughout history, and it have entertained and engaged humans for centuries, which could be one of the reasons why gamification has been proven to engage and motivate users today.

In recent years, more academic journals and periodicals are discussing gamification, and a growth of definitions has occurred. Deterding et al. (2011), which defines gamification as the use of game design elements in a non-game context, where the aim is to alter a certain behavior, is one of the most accepted definitions. In this setting, *game design* is the combination of tools that aim to

create an interaction and the gameplay for its players. Popular tools used in gamification are rules, points, goals, scoreboards (leaderboards), badges and motivational- attributes. A more detailed explanation of the different tools and attributes will be presented at a later stage. A *non-game context* is what separates gamification from the standard perception of games, such as computer games, video -games and sports. In general, gamification uses many of the similar elements as games, and use it everywhere, except in games. Gamification can be defined as a service innovation, since it has changed how people get engaged and motivated by doing same tasks in a new design. This fits well to Michel et al. (2008) explanation of service innovation as a change in the customer role, and modification in the value-creation processes.

Gamification has also become a subject of interest for businesses. In 2014, Research and Markets stated that the total market value of Gamification was $980,000, which was an increase of 88% compared to 2013, and the beginning of something more than a hype. The same research outlook, estimated the total market value of gamification in 2015 to be a $1.707 billion industry, and forecasted an increase up to approximately $ 10 billion in 2020. In 2014, Bloomberg estimated that gamification would become a $ 5.5 billion market in 2018. These outlooks are evidence of how highly the market ranks the evolvement in gamification. Moreover, Gartner Enterprise states that over 50 percentages of organizations managing innovation processes will gamify some parts of their business by 2015 (Gartner 2011).

1.2 Positioning and research gap

This study position itself in a non- profitable business organization. We argue throughout the study that charity is a field touching people on a more personal level, and therefore differ from the previous use of gamification in other businesses. Charity is also a field that has not gained much attention in academic journals, despite its economic size (Charities Aid Foundation 2013). In 2015, $373 billion was given to charitable causes, only in the U.S. (Charity Navigator 2015). Even more important than its economic size, is charity's role in helping other people. E.g. a business that uses gamification could use this tool to their personal gain (earn more money). On the other hand, gamification in charity will in the end try to raise more money to help people that struggles. This is the main

driver for why this study focuses on charity, and aims to improve it with the most appropriate marketing tool presupposed, that is, gamification.

Bearing in mind that gamification as an academic research area is of relatively new origin, with most research being conducted over the last four years (Hamari et al. 2014), it exist some critical gap that needs to be investigated and analyzed. Previous research has focused on the effect of gamification in settings where the participants get a personal gain (learning, work-related, receiving products etc.) This study focuses on charity, where the participants need to sacrifice both time and money to help other people. By investigating gamification further, in a new setting (charity), a deeper understanding of gamification at its applicability can be explored. Previous research tend to justify the usage of gamification by arguing that people are more productive when having fun, and that most people tend to have fun when they participate in a game of sort (Deterding et al. 2011). This means that implementing games in e.g. work-related settings can increase the fun and enjoyment at work, which further increase the productivity. This has led to an investigation on the usage of gamification as an educational tool in schools (Barata et al. 2015).

This study position itself in an enthusiastic manner towards the concept gamification, despite the unknown effect gamification has on charity. What we do know is that gamification aim to increase user engagement by making specific activities more fun and competitive. Hence, investigating effects and ways to achieve higher user engagement are a research field of great interest. Several researchers share the view that engagement is a state existing of a certain degree of intensity that alter distinct behavioral outcomes (Hollebeek 2011). Every interpretation of this definition will conclude that marketers who are able to steer and form this degree of intensity in a desired direction will achieve both loyal customers and increased revenues. Arguable, in order for a person to be engaged in a brand or an activity of sort, it will require a level of motivation. That is, a degree of individual benefits.

Playing with people's motivational level has also led to research on how organizations can implement gamification tools in order to increase motivation, make tedious work more enjoyable and thus create higher productivity among

their employees (Cherry 2015., and Farzan et al. 2008). Furthermore, gamification has also been investigated in areas like marketing and advertising, with the focus on how to get people more attached and engaged in the a certain product or activity (Bittner et al. 2014., and Terlutter et al. 2013), by making people a part of the product or activity. An interesting example is the movie Batman: *Black Knight Rises*, where its marketing team created a huge campaign that allowed fans to take part in real life games and challenges, all of which created huge buzz prior to the real movie release (Cargocollective 2012). Our study takes a similar approach as we aim to understand how engagement and motivation can be used in the field of charity.

In contradiction to many other gamification studies that only uses gamification tools like points, leaderboards and badges (e.g. Hamari et al. 2014., Bittner et al. 2014., and Barata et al. 2015), our study argues for the implementation of more complex gamification tools to create more engagement from the users' (Kapp, Linkedin 2015). By having simple solutions, and only use few gamification tools, it is believed that gamification do not reach out to its full effect (Kapp 2015). Complex gamification tools refers to tools used in real games, such as feedback, mastery and storytelling, which have been proven to engage users on a longer time period (Werbach & Hunter 2012., Nicholson 2012). Game designer Margaret Robertson, who heavily criticizes the usage of point, badges, and leaderboards, also supports the argument, stating that this approach is like *"taking the thing that is least essential to games and representing it as the core of the experience"* (Seaborn et al. 2015).

1.3 Research question

This study will investigate the generosity of respondents in a charity setting, and how it will be affected by gamification. Since this is not a real-life experiment, it is difficult to measure exactly how much money they want to donate. This study will therefore look at respondents *Intention to give money to charity* (hereafter *Intention to give)*, which we believe is the most ideal and applicable indicator to respondents' generosity for this study, and how it is affected by a gamified charity website (hereafter platform). *Intention to give* will therefore work as the dependent variable (hereafter DV) in this study.

Previous research regarding charity habits has investigated why people give to charity (Charities Foundation Aid 2013). These drivers, which will be the baseline

of the independent variables (hereafter IVs), will be introduced later in theory and operational of the study. The most important drivers, and chosen IV's in this study are *Personal values, Prior knowledge* and *Personal experience*. These are all believed to grasp the individual aspects that influence charity activities.

It has been shown that different type of people, react and are motivated differently to game-like situations (Bartle 1996). *Player types,* consisting of *Achiever, Socializer, Killer* and *Explorer* will therefore work as a moderator in this study. The moderator investigates whether different *Player types* strengthens or weakness the relationship between the participants and their *Intention to give*. A comparison of the *Player types* and their *Intention to give* will also be conducted, to investigate which type of player is most responsive to gamification.

As well as being motivated different in game-like situation, different people have different beliefs of the economy, which further can affect a person willingness to spend money. *Consumer confidence* is a person's opinion of the overall health in the economy. This is a second moderator in this study, and will determine whether respondents' perception of the economy (positive, neutral or negative) will affect respondents *Intention to give.*

This study seeks to answer the following research question:
How will Gamification influence respondents' intention to give money to charity? To what extent do respondents' Prior knowledge, Personal experience and Personal values affects the intention to give money to charity, and how will type of player and consumer confidence affect this relationship?

During this study, the drivers' relationship towards the *Intention to give,* and whether other factors can moderate the relationships will be tested. Therefore, our hypotheses are constructed to obtain as much knowledge possible about these relationships.

1.4 Purpose and contribution

Our study aims to investigate a new field of using gamification, and help others to explore effective methods of using this emerging tool. It is believed that gamification is generalizable to other contexts, such as change behavior of both consumers and employees, but this study underline that researchers that

investigated the effect of gamification, often experienced varying results. We believe a study, within charity, where respondents does not receive direct benefits, such as money, prizes, bonuses, and school-grades from gamification, can be very effective and generalizable in proving how powerful gamification can be. Evidence of gamification's power to increase consumer engagement, as well as a contribution to different and creative ways of reaching out to consumers will hopefully be achieved in this study, regardless of the result.

Gamification is still an emerging field in a business setting, and is therefore in need for more research and evidence towards its effect. With the background of gamification's effects on increasing engagement, motivation and learning, and its growth outlook for the next five years, that estimates it to be a $10 billion industry in 2020 (Research and Markets 2015), gamification will become an important tool to engage and change user behavior. This study intend to investigate if gamification can engage users to donate more money to charity, which means that they need to sacrifice time and money to help other people. Previous researches have focused on gamification where the users get a personal gain. The study will provide both theoretical and managerial contributions on how a gamified charity platform can engage donors, which could create more commitment towards charity, since the users could be more engage in their donations.

Deadly diseases, famine, wars and natural disasters continuously characterize the world today, which makes it important for people to give money to charity. Our assumption before thoroughly investigating the field of charity is that people often give without thinking what the cause is, and therefore tend to forget about it in the next days. We believe gamification has the ability to change this, and thereby increase a long-term engagement and also increase people's *Intention to give*.

Charity is an increasing industry (Charity navigator 2015). There are around 10 million non-profitable organizations (OnGood 2015) in the world, and 1.4 billion people donate money to non-governmental organizations (NGO's) (Charities Aid Foundation 2013). Furthermore, according to a research conducted by Abila (2014), *Generation Y* is the generation that donates the least money on an individual basis (The Guardian 2014). The same research also mentions that organizations lose 57% of donors each year. The research from Abila (2014)

confirm the importance to change the way people do donations, and that the *Generation Y,* which have been growing up with game elements, need to be more engaged and motivated in order to extend their philanthropic behavior. The 2013 Millennial Impact Report investigated how the *Generation Y* support charitable causes. Interestingly, *Generation Y* do not only want to give a specific amount of money, they also want to be engaged in the charitable giving (The millennial impact 2013). Therefore, NGO's should increase their level of emotional engagement, making gamification a meaningful topic to research.

In the following section a theoretical overview about gamification in the light of previous literature will be presented, where existing literature and theories will be discussed. Psychological aspects of gamification, with a special focus on motivation and human behavior will support our beliefs surrounding the use of gamification in charity. This study will argue that gamification is a tool consisting of abilities to generate higher motivation and thereby long- term engagement. Further, it will be investigated whether and how gamification may be applicable in a charitable context.

2.0 Literature review

Previous research on gamification

Game developer Nick Pelling first introduced gamification in 2003, when he created game-like interfaces for a consultancy company and their use of electronic devices (Werbach & Hunter 2012). In other words, Pelling combined electronic transactions for customers with a game- like experience. However, gamification did not get any major attention until the second half of 2010 (Deterding et al. 2011, and Hamari et al. 2014), when major magazines labeled it "the hot new business concept" (Werbach & Hunter 2012). This study will use the definition provided by Deterding et al. (2011), stating that gamification is the use of game design elements in a non-game context. This definition provides a clear distinction between games, e.g. board games and videogames, and gamification. That is, the context gamification applies to could be anything, except a game. This separation is fundamental in understanding gamification, and opens up to a world of possibilities for businesses.

The most used game elements in relevant literature are points, leaderboards and badges (hereafter PBL) (Hamari et al. 2014). Points aims to motivate users by displaying their ongoing progress. Leaderboard alter competition by openly comparing users with each other. Badges motivate users by giving them a visual form of feedback when they achieve a defined milestone of sort, e.g. reaching hundred points. There has been provided empirical evidence of a positive effect towards steering behavior with the use of these game elements. Conaway (2014) argued that gamification used properly could increase customer loyalty, sales and number of visits to organizations websites. Other researchers (Barata et al. 2015, and Landers & Callan 2011) found that gamification can increase motivation for students, by making the learning environment more fun, engaging and competitive. Although they found evidence on the effect of gamification, one could argue that they do not provide evidence on what specifically motivates the targeted audience (Liyakasa 2013). An important take away is however to be found when researchers support gamification as a positive effect on motivation. Of further interest to this study, is how the motivational effect occurs in a charitable setting.

Farzan et al. (2008) have found flaws in the effect of gamification and its elements, with decreasing effect after a while. Domínguez et al. (2013) found that gamification increased the scores on practical assignments, overall score for students and higher initial motivation, but decreased in the score on written assignments and class activities. Both these researches highlights the fact that gamification, as a relatively new study, still requires more research and developments. This makes it important for this study, and others, to investigate and understand if there are patterns between people responding negative or positive when being exposed to gamification.

Many of the researchers that focused their study on gamification have investigated how PBLs can steer a given behavior. For instance, how students can perform better at school or an employee can work more effective. Yet, the effect of these gamification tools alone has been unclear, causing quite fluctuating results. Attali et al. (2015) investigated the effect points had on performance in mathematical tests. They discovered varying effects, both on adults and middle school students. No effect on number of correct answers of the two respondents groups was found,

but speed of response increased when a point system was introduced. An interpretation of this finding could be that people might increase motivation once they have a visual aspect that symbolizes their actions. Motivation is in many way individual steered, it is therefore of little surprise that the study also revealed that the effect of using points varied within the two groups.

Anderson et al. (2013) conducted a study on how badges can steer behavior in a given direction. Their research used an experiment where the respondents was handed a reward, a badge, when they had participated a given amount of time on a social media site, and completed some specific activities (for instance clicking on a commercial, or liking a webpage). Interestingly the researchers' framework showed that participant increased their activity when they were close to getting a new badge. That is, respondents were motivated to be an active user on the social media site when they felt rewarded for it, although badges those not hold any monetary value, and can for instance represent a simple smiley. Anderson et al. (2013) provides a conclusive discovery for gamification literature, but arguably of a quite primitive notion since their use of badges did not lead to an ongoing motivation. However, it indicates that the use of badges can be implemented to gain a short- term boost towards a desired behavior, which should be intriguing for a charitable organization among others.

Hamari (2015) investigated badges effect in a selling- buying network called Sharetribs (which share similarities with eBay, where private people can buy and sell anything between each other). Badges were given based on the activity on the site, e.g. complete transaction or comment on proposals. By implementing a set of badges, the research managed to capture an increase in user activity on the site, which shows that when implemented correctly, badges can be an effective gamification tool. It should be noted that implementing badges requires that the user group understands the meaning and competitive value of gaining it. In other words, badges is often effective because users can compare their badges with their friends badges, making it more competitive, and thus more motivating to gain more badges.

A Leaderboards effect in a gamified setting has gained a lot of attention in previous gamification literature (Hamari 2014), and is often used to increase

performance of a specific group (e.g. students, employees or customers). Domìnguez et al. (2013) found both positive and negative results by using leaderboards in school. For some students, leaderboards increased their results, and was a good source for motivation. On the contrary, other students did not perceive the implemented leaderboard as motivating, and for some it was even discouraging. Researchers on leaderboard as often found similar results as Domìnguez et al (2013), that is, it can often work against it purpose. Arguably, one should not implement leaderboards on a group before testing the effect of it. This holds for both researchers and businesses.

As reviewed in the previous paragraph, PBL's does seldom have a clear effect when it is used alone. Disneyland witnessed a backfire in their implementation of a leaderboard among their employees. The strategy was that the leaderboard should obtain a more fun and challenging work environment, where the employees were closely measured on behalf of their work accomplishments. However, the leaderboard led to an extreme competitive environment that consequently made both performance and satisfaction among the employees of Disneyland to drop (Los Angeles Times 2011). Another real life example was the online shoes and clothing shop, Zappos', use of badges. Apparently, Zappos handed out random icons that represented badges, to their VIP customers. However, Zappos did not provide any communication surrounding the meaning of their badges and its use, leading to a lack of motivation from the customers to collect them (iMedia 2012). For why should customers collect something that they do not know the meaning of?

On a more positive notion, if gamification is used with a more complex set of game elements (and is implemented more sufficiently), such as collaboration, community, competition, and goals, and not only single use of either PBLs, the effects of gamification has been shown to be positive (Pahari 2013). Collaboration is often effective, as it acquires people to team up and work together to solve a problem of sort. A community links people with similar interests together, and will often increase the learning outcome. Setting goals and prizes for best performances will often increase competition. Notwithstanding, a company or school that introduces a competitive activity (e.g. first to be finished with a task gets a reward) should also implement an encouragement for those who did not

compete that successfully. Nike+ and LinkedIn (nikeplus.com & enterprise-gamification.com) are two real time examples that both successfully implemented gamification as a tool to engage and motivate their users. Both organizations built their gamification on a complex community, where Nike+ focuses more on a competitive community and LinkedIn slightly more towards collaboration (but also competition). Nike+ allows their users to follow their training process, while also having the opportunity to chat and challenge other users (runners). All of which makes Nike+ a successful competitive environment. LinkedIn primarily links jobseekers with employers, but also contain loads of information about companies, and allows individuals to share work experiences and other valuable information. This makes LinkedIn a valuable community for everyone connected with the working life.

The reviewed articles and real time examples, contributes to our beliefs that PBL's alone, will not create a long-lasting and clear behavior from their users, and support our beliefs that gamification is a multifaceted process. The PBL's have shown positive outcomes on learning, motivation and performance, but only when it is used in the right way. Karl Kapp, professor at Bloomsburg University, support the belief that a successful gamification platform need to use more real-time game elements, and not only PBLs. Kapp emphasize that PBL are not fully compelling to a game. That is, it does not capture the game-like experience as compared to mastery, feedback and story, and therefore these game elements is not always sufficient for the gamification to be considered a realistic game. His argument is that mastery, feedback and story allow players to control the environment while being simultaneously entertained, and not only pursuing seemingly mindless points and badges. We underline that gamification is built to be as realistic to a real game as possible. One of the pioneers within the field of gamification and the founder of *Bunchball.com*, one of the biggest gamification providers that helps companies improve engagement, motivation and loyalty, Rajat Paharia, also emphasize that gamification is a more complex tool that often exceed the somewhat simple introduction of PBL. In his book *Loyalty 3.0* (2013) he focuses on ten mechanisms of gamification where mastery, progress and social interaction can be seen in most of these mechanisms.

With the varying effect of gamification, and the focus on only the PBL's, it is clear that gamification is a field that requires further research, both managerial and theoretical. Karl Kapp gives more attention on game elements as: *story, feedback* and *visible form of mastery* (Linkedin, 2015). Story is the ongoing journey that the user must encounter during the whole gamified experience. Feedback is the continuous form of keeping the user up to date with the ongoing progress. Visible form of mastery is the personal feeling the user get when succeeding. All of which are techniques to alter long- term engagement, and in turn create a stronger commitment. Jumping into one specific gamification technique, as badges, without investigation motivational factors on the end users, often leads to poor game designs (Gartner 2012 and Liyakasa 2013). That is, people are motivated by different factors, while some improve by competing openly against friends and co-workers, others get motivated by proving something for themselves. The fact that people are motivated differently will be a red rope throughout our study.

Gamification's relationship to charity

Having conducted an examination of existing literature, it is clear that no other research have investigated which effects gamification can have towards people giving to charity. Knowing that the field of gamification is relatively new, and therefore of an undeveloped art, this is not surprising. However, in a broad sense, one could easily argue that our study share similarities with the vast specter of existing literature that focuses on motivation, engagement and behavior (e.g. Ryan & Deci 2000, Ajzen 1991, and Hollebeek 2011). These are aspects that all literature on gamification must confront in someway or another. In order to answer the research question at hand, this study investigate whether individuals are motivated and obtains engagement on a charitable cause through the influence of gamified tools. Hollebeek (2011) presented a literature review that investigated the field of engagement, where different behavior is strongly pending on activity among several factors, such as brand and segment. Based on this, it becomes feasible to argue that an implementation of a gamified charity platform will display a different behavior compared to more standardized charity platform. Nonetheless, one can argue for different behavioral outcomes, but it is unknown whether these behaviors will be positive or negative in terms of a person's *Intention to give.* Our beliefs are that a positive behavior, when being

exposed to a gamified platform, suggest that the gamified tools have reshaped motivation and also engagement towards charity.

The investigated literature has showed that gamification can increase engagement, learning and motivation when used in the correct manner. Seeing that more organizations are using this tool in their daily business it is important to investigate the effects. New ways of using gamification are continually being introduced, such as in charity, where some of the typical gamification tools have been implemented by e.g. Norwegian Red Cross and Save the children Australia. Nonetheless, these introductions have not yet been theoretically tested. This study assumes that when being exposed to a set of game elements, which among other things, allows one to follow progress made in a specific cause, and also specifically how oneself can contribute, will increase a person's *Intention to give*. Therefore, a hypothesis is developed aiming to investigate the effect of gamification in charity:

H1

A gamified charity platform will have a positive effect on a respondent's intention to give to charity, compared to a regular charity platform.

Prior knowledge and its relation to charity

One of the drivers for why people donate to charity is *Prior knowledge* of charity. This variable share similarity with gamification in education, as it is assumed that better learning and higher knowledge will increase one's education, it is therefore interesting to see its effect on charitable behavior. In order to achieve an increase in learning progression, Barata et al. (2015) created a leaderboard where students could follow their classmates' progression and compare it to themselves. A leaderboard could increase a user's achievements by affecting one's intrinsic motivation, that is, the human natures inner motivation towards seeking challenges and novelties (Ryan & Deci 2000). Barata et al. (2015) also included badges and points. However, it could be argued that the usage of leaderboard, badges or point as the only game element in both gamified learning and gamified charity can cause a negative outcome. For instance, people react variously when being compared to others in a public setting, which may cause some conflict with only using a leaderboard, as Disneyland witnessed with their leaderboard.

Barata et al. (2015) conducted two experiments that lasted for two years. In the second year they received more positive feedback from the students being exposed to the gamified course, because they manage to better adapt the game elements in alignment with students needs. Our study can take an important learning from their article. Namely their ability to create a meaningful linkage between PBL, which is proven through their post-satisfaction questionnaire, where all of the different groups provided positive feedback towards the structure of the gamified course. This implies that Barata et al. (2015) manage to motivate many of the students and make them long- term committed, and not only short-term motivated for the possibility of gaining a badge. It is noted that Barata et al. (2015) arguably experienced the positive feedback due to their collaboration with students needs. This underlines the importance, mainly due to the psychological element of motivation, of including the people that is to be exposed to gamification.

Researchers seem to be divided on whether gamification provides an increased learning effect in a classroom (Christy & Fox 2014). On the one hand, the argument is that gamification in classrooms strengthen learning effects by increasing engagement and motivation, which further gets strengthen by the social learning environment that gamification yields (Muntean 2011). On the other hand, some studies have found evidence that gamification actually decrease class participation, which in turn have a negative effect on exam results (Domìnguez et al. 2013., and de-Marcos et al. 2014). What can be drawn from this is the existence of many variables affecting the outcome of gamification in a learning environment.

This study argues that having knowledge to a certain subject creates higher engagement and motivation. Therefore, prior knowledge on a specific topic, here charity, is an important variable that needs to be detected before making any kind of assumption one way or another. In support of our prediction, Mallinckrodt & Mizerski (2007) ran an experiment where they found significant evidence that older children with high persuasion knowledge (which in this case is the same as prior knowledge) were most likely to choose the given brand. Similarly, we predict that a person with high prior knowledge towards a specific cause will be

more likely to give, compared to a person that does not possess this knowledge. Therefore, previous literature on gamification in the classroom is of great importance because students with different knowledge react differently to implemented game elements.

Charitable organizations must always strive to answer the question on why people give to charity. The answer may fluctuate as time goes on, but some reasons will always count for most people. In alignment with Hibbert et al. (2007), this study consider guilt arousal to play a central role in explaining why people give to charity. The most fitting explanation of guilt arousal is when firms use emotional techniques to provoke feelings of guilt. Hibbert et al. (2007) first detected that guilt arousal has a positive effect towards donation intentions, but moreover they discovered that persuasion knowledge leads to a higher level of guilt aroused. Consequently, their article argue that knowledge of specific charity can alter emotions that would increase a person's intention to give to charity. In similar notion, our study aim to examine whether prior knowledge affects *Intention to give* when different charity platforms are used.

Bekkers & Wiepking (2010) reviewed more than 500 articles and found *Awareness of need* to be one of the most important drivers to charitable giving, which supports our belief that higher knowledge creates higher *Intention to give.* Reviewed research on charity has placed knowledge of cause as one of the most important reasons why people are giving money to charity (Charities Aid Foundation 2013). Both of these studies highlight the important of knowledge in a charitable setting, making a hypothesis formulated as followed:

H2a

A respondent with high Prior knowledge towards charity will have higher intention to give to charity, than a respondent with low Prior knowledge.

Seen how gamification has changed motivation and increased learning in education in previous research, (e.g. Barata et al. 2015 and Muntean 2011), it will be interesting to investigate if gamification can have the similar learning effect on respondents in a charitable setting. A second hypothesis is therefore formulated as followed:

H2b

A gamified platform will have a positive effect on a respondent's Prior knowledge and its effect on Intention to give.

Personal experience and its relation to charity

The art of getting people to give charity contradicts from standard advertisement as it "sells" the possibility to help others, and thereby one sacrifice something instead of gaining a product or a service. It does however share a complementary goal of getting people to spend their money in a specific way. In charity specifically, this goal depends highly on personal experience. That is, whether a person perceives the cause to be in alignment with prior experience towards similar charity causes, organizations, or life experiences. Previous literature on gamification in marketing differs from gamification in charity due to the emotional aspect of charity. These literatures focuses mainly on the workplace, education and branding (e.g. Cherry 2015, Barata et al. 2015, and Mallinckrodt & Mizerski 2007). In a charitable setting, it is fair to state that emotions are stronger, in a positive notion, as once action helps someone in need compared to buying a pair of sneakers. Nevertheless, Examining previous literature on gamification in marketing provides some valuable insight on which factors that are used to alter motivation with the focus on personal experience.

Terlutter et al. (2013) analyzed gamification in advertising and designed a theoretical framework. The variables used explained behavioral outcomes toward a brand when users play a game, and simultaneously were exposed to advertising content. Their framework contains characteristics *(X)* as game genre, repetition of ad exposure, and degree of interactivity, psychological responses and behavior outcome *(Y)* (e.g. brand attitude and recommendation of brand in games). All sets of characteristics, psychological responses and behavior outcome were measured towards both the brand and the game. Terlutter et al. (2013) used individual - and social - factors as a moderating effect on *X* and *Y*. Multiple individual factors, of interest, was central to how the game and brand where perceived, e.g. gaming experience, brand familiarity, preexisting brand attitude, and persuasion knowledge. The different factors able them to detect if, for instance, an individual factor as *recognition of commercial intent* have a moderating affect on how an individual will behave toward a certain brand. For instance, for unexperienced

gamers there were no interaction effects between advertising placement and game involvement (Terlutter et al. 2013). This finding provides meaningfulness to the IV *Personal experience* for a study on gamification.

This study believes that respondents' *Personal experience* will have a positive effect on the DV, *Intention to give*. However, respondents that possess a higher experience than others in regards to charity will not increase their *Intention to give* after being exposed to a gamified platform. The study beliefs that experienced people tend to be more reluctant to change their already rooted beliefs, and hence making it difficult to change their intention towards something they have a strong prior experience with. The best examples exist in political opinions. For instance, a person with strong beliefs and support for Israel might show sign of reluctance in helping people from Syria. Moreover, mature people have a better ability of recognizing persuasive content, and thus become more skeptical towards it (Wright et al. 2005).

Gamification aims to increase engagement, but we believe that respondents with strong *Personal experience* already are engaged, either positively or negatively, towards charity. That is, people that possesses beliefs due to previous experience towards charity is believed to have a stronger engagement, and are therefore more likely to give to charity (Charities Aid Foundation 2013). Although we are aware that people might bear negative experience, but subjectively speaking, people with an existing experience with charity will most often possess a positive intention towards donations. This is simply argued due to the emotional aspect charity brings, e.g. poverty, hunger, war, and natural disasters. Moreover, a charity organization can provide as much information about their activity as possible, but all in all a person must donate in order to evaluate the utility and emotions the feeling of giving does (Nelson 1970). Therefore, in line with the emotional aspect of charity, we believe people with more experience toward charity have a higher possibility to give, compare to does with no experience. Hence, we formulate the following hypothesis to answer intentions before exposed to a gamified platform:

H3a

A respondent with more Personal experience with charity will have higher intention to give to charity, than a person with lower Personal experience.

It is believed that gamification can increase engagement in several settings (e.g. Muntean 2011. and Anderson et al. 2013). We believe that respondents who are introduced to a gamified charity platform will positively affect personal experience and thus also intention to give. This belief is supported by reinforced learning theory, predicting that personal experience have a greater effect on behavior than only reading about the same source of information (Kaustia & Knüpfer 2008). Therefore, gamification will in this case have a positive effect on a respondent's *Personal experience*, which in turns have a greater effect on behavior. A second hypothesis will investigate the effect gamification has on *Personal experience:*

H3b

A gamified platform will have a positive effect on a respondent's Personal experience and its effect on Intention to give.

Personal values and its relation to charity

A non- profitable organization will allegedly not manage to create a long-term relationship with its users without knowing factors that make the users committed to their product or service. This study investigate the potential effect *Personal values* have on *Intention to give to charity*. Here, the term *Personal values* are gathered from Cunningham & Lischeron (1991), who explained it as an individual's honesty, duty, responsibility, and ethical behavior. However, we do not focus on honesty, as this is hard to detect through a survey. Therefore, our study must highlight these values through the questionnaires and in alignment with the dependent variable. A survey conducted by Charities Aid Foundation in 2013 found that the respondents (N=>700) gave *Personal values* a score of 97%, when given the question "*how strongly would you say the following has influenced your desire to give to charity?"* One could argue that *Personal values* may conflict with social demonstrance, which is a person's struggle between pursuing intrinsic (e.g. self expression) - or extrinsic (social status) - values (Fischer et al. 2010). In other words, people that base action on extrinsic values will often do so in order to fit in a social context. This study is convinced that people that often base their actions on social demonstrance will most often not obtain a strong intention in giving charity. The explanation is that in order to reach a strong intention, one must also be properly motivated and engaged. This state of

being are reachable when the activity, give to charity, is in alignment with *Personal values*, and not in conflict between self-expression and social status.

Our predictions, that people basing their actions on social demonstrance will tend to have a low intention to give to charity, are in some fashion supported by Ryan & Deci famous article from 2000. They explain that a specific content often must be evaluated and brought into a context that fully fits with a person's assimilation. This is a specific type of extrinsic motivation, which they referred to as an *integrated regulation*. Although their article explains three other forms of extrinsic motivation, in this context integrated regulation is most interesting, because it is more internally based, and therefore closes to *Personal values*. Integrated regulation occurs when individual integrate a specific content or message and compare them to their *Personal values* and beliefs (Ryan & Deci, 2000). Therefore, as a person being exposed to different charitable content, different levels of meaning occurs based on how the content will be integrated in alignment with *Personal values*. Ryan & Deci (2000) also argued that once an individual manage to comprehend what they referred to as *regulations*, but may be seen as any content or message at hand, they will reach a higher autonomy in their action. This implies that once a context convey meaningful message to a person, it will automatically strengthen the possibility for this person to be attached to the given context.

This study will investigate whether gamification has the power to strengthen this personal attachment when charity is the given context. Gamification, as a marketing tool for steering behavior in a certain direction, is strongly depended on personal ways of being motivated. If a person does not perceive a charitable action of being valuable to his/hers *Personal values* the effect could be negative, meaning that, the person would have a low *Intention to give.* Bielik (2012) and Deci (1972) support this argument; both argued that only using extrinsic rewards might have significant negative effect on motivation. Bekkers & Wiepking (2010) identified that a donors' values is one of the mechanisms that drives charitable giving, which strengthen the beliefs that personal values relates to *Intention to give.* Drawn from the discussion above, a hypothesis is formulated on the surroundings of our predictions on how *Personal values* affect the intention on giving charity.

H4a

A respondent's Personal values will have positive effect on intention to give money to charity.

Gamification has been proven to change behavior in several settings (Hamari 2014). Building further on these findings, this study argue that gamification can change personal beliefs towards charity. Moreover, Ryan & Deci (2000) states that a person is only intrinsically motivated when the given activity possesses challenges and novelties for them. Therefore, we built on their statement and anticipate that our use of gamification increases inner motivation towards seeking challenges and novelties, and thereby the *Intention to give* to charity. A second hypothesis on how gamification can affect respondents' personal values will therefore be added:

H4b

A gamified platform will have a positive effect on a respondents Personal values and its effect on Intention to give.

Different Player types

Barata et al. (2015) conducted an experiment on how to increase students' progression by using different gamification mechanisms. Interestingly, Barata et al. (2015) categorized a group of students into four different types, pending on their performance (achievers, disheartened, underachievers and late awakeners). Building on the statement that different people performs- and are motivated differently, the study of Bartle (1996) in dividing players based on their playing style fits well in this study, and ease the investigation on how gamification can motivate different people in different ways. Bartle (1996) is one of the most referenced authors in the use player types. He separates between *achiever*, *explorer*, *socializer*, and *killer*. Improving their points and further rising in levels drives *Achievers*. *Explorers* are mainly interested in how things works, and sees points and progress only as a way of entering the next phase. *Socializers* are interested in others opinions, and the motivation for establishing lasting relationships. *Killers* prefer action, and one could argue that they are most motivated by the possibility of imposing others.

Motivation is the core aspect in getting people to act in a specific way. Ryan & Deci (2000) explains the concept of their self- determination theory, which concerns the motivation behind choices, without being affected by external factors. That is, a person that follows his intrinsic motivation will initiate an activity due to a personal satisfaction in doing so. In gamification, playing your favorite sport could be an intrinsic motivation due to the fun in it, while going to work for the sake of money is an extrinsic motivation. Maslow (1943) stated that people was motivated by achieving five different needs. This is often presented in a hierarchical level, where the two highest levels of motivational needs is intrinsic, and the three lowest levels are extrinsic motivation. We believe that to truly understand gamification, an understanding on whether intrinsic or extrinsic is the core motivational factor for a person is fundamental. This core aspect is somewhat lacking in previous literature in gamification. The previous literature regarding gamification has mainly focused if gamification works in different situation e.g. learning at school and work performance. Hamari et al. (2014) conducted a review on empirical studies on gamification to answer the question on whether *"gamification works"*, but as a limitation they admittedly stated the lack of investigating studies regarding intrinsic motivation.

Our study will consist of a moderator that combines Bartle's (1996) player types and motivational theory from Ryan & Deci (2000), by investigating how different *Player types* are motivated different regarding *Intention to give,* and how the *Player types* affect the relationship between a respondents intrinsic values (the drivers) and their *Intention to give.* This investigation could answer important question regarding how different type of people is motivated differently regarding giving money to charity, as well as if gamification is a tool that truly resemble a game, and can motivate different people to act in a certain way. The following hypothesis is therefore developed

H5

Different player types are motivated differently, affecting respondents' Intention to give.

Consumer confidence

Consumer Confidence is consumers' beliefs about of the economy, and has been proven to influence factors such as customer loyalty (Ou et al. 2014), future consumption growth (Ludvigson 2004) and stock returns (Baker & Wurgler 2006). When an economy witnesses a swift downward, it is often due to people's tendency to interpret information in a more pessimistic manner (Kramer 2002). It might cause people to save more instead of spending, and as this pessimistic mindset spreads to others through word of mouth, the economy slowly decreases. Because of people's tendency to be skeptic over the economic future, the *Consumer confidence* will be restored slowly when an economic expansion occurs (Deleersnyder et al. 2004).

The usage of *Consumer Confidence* in a charitable setting is rooted in our predictions that strong beliefs in either a positive or negative fashion could afflict a person's *Intention to give*. Therefore, it is believed that *Consumer confidence* will have a moderating effect on the respondents *Intention to give.* Our prediction has merged from historical patterns, where it is evidence towards people giving less to charity when they believe the economy will decline. For instance, National Australian Bank (NAB) constructed a charitable giving index where it was evidence that negative trends on economic growth and rising unemployment where factors leading to lower charitable behavior. Based on current rates on these variables it is obtainable to make assumptions on the possible strength or weakness towards the *Intention to give.* Therefore, we construct the following moderator hypothesis:

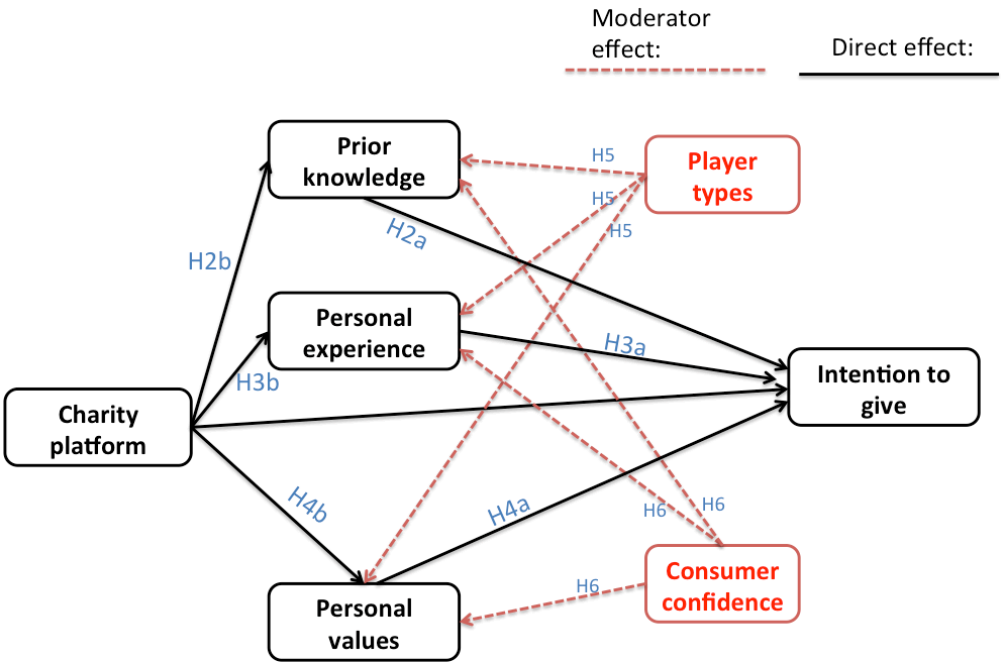
H6

A negative Consumer confidence will have a negative affection on respondents Intention to give, compared to a positive Consumer confidence.

Conceptual framework

In the light of the literature review and the established hypothesis a conceptual framework was developed.

Figure 1: Conceptual framework



This conceptual framework tries to give an understanding of different factors affection and importance when looking at a respondent *Intention to give.* The focus of the study is to investigate which effect gamification have on a respondent *Intention to give*, and if it can influence the other drivers. *Prior knowledge, Personal experience* and *Personal values* have been looked at as common reasons, by previous research, on why people give to charity. These factors will investigate the relationship they have towards *Intention to give.* When investigating cause and effect, it is important to investigate if any other variables can affect the relationship. In this study, *Player type* and *Consumer confidence* work as moderators to investigate their effect on the relationship between the selected drivers and *Intention to give. Player type* concerns that people are motivated and engaged different. This study will also investigate how different respondents respond both to gamification, and how it affects the drivers towards *Intention to give. Consumer confidence*, a term that is used to investigate to a persons' belief regarding the economy is used to check if this affects the *Intention to give.*

3.0 Methodology

This section contains a description of the research design and data collection. Several pretests from both the established platforms as well as the questionnaires will be conducted to secure high validity and reliability of this study. A description of the charity platforms is also included.

3.1 Research design

This study conducted a causal research, investigating the relationship among a set of variables between two groups. The X is *Type of platform*, while the Y corresponds to the *Intention to give*. The study is a between subject design with two conditions, treatment and non- treatment. The treatment group (hereafter TG) and the non- treatment group (hereafter NTG) were presented with two fictive websites (hereafter platform), both called *"Helping the world*" ("*Verdenshjelpen*" in Norwegian, which is the language used in the platforms). The IVs in the design consists of *Personal values, Prior knowledge* and *Personal experience*, where specific questions in the questionnaire formulated each of them. Two moderating effects were investigated. (1) *Consumer confidence*, which was constructed and based on previous literature. (2) *Player types*, which was divided into four and each respondent were labeled as one of them based on their preferences when playing a game (different scenarios).

Analyses consisted of; factor analysis and structural equation modeling, to detect possible effect the IVs and the moderators had on the DV, and between groups. Our causal research design made an effort to answer the following research question:

How will Gamification influence respondents' intention to give money to charity? To what extent do respondents' Prior knowledge, Personal experience and Personal values affects the intention to give money to charity, and how will type of player and consumer confidence affect this relationship?

3.2 Operational of survey construct

The distributed questionnaire used a seven-point Likert scale. This scale is designed to measure attitudes and opinions, and made it possible to gather responses that was relevant to a person's beliefs and knowledge, as well as a

feelings and attitudes toward the research subject (Likert 1932). In addition, using a Likert scale increases validity and reliability (Burns & Burns 2008, 475). The survey consisted of 35 questions, which tried to measure the constructs.

Our manipulation was a link at the top of the questionnaire, which brought the TG and the NTG respectively to the gamified- and the non- gamified platform. Each respondent was asked to imagine the scenario of being an active user of a new charity website, then use approximately five minutes to explore the platform, before answering the questionnaire.

Questions that represented the DV were mainly constructed on our own assumptions and knowledge, as these questions was directly linked to the platforms we created. But the questions was also drawn from Hibbert et al (2007) as they similarly investigated how intention and knowledge affects charity using a survey with statements in a seven- point Likert scale.

The questions relating to the IVs was all formulated and gathered based on existing literature. *Prior knowledge* consisted of questions regarding information, knowledge, and how media influences. Two information questions were designed, the first one was based on Charities Aid Foundation (2013), where respondents were asked how strongly they agreed with the following: "*I am satisfied with the feedback I receive from charities about the impact of my donations"*. The second checked whether media coverage influenced a respondent intention to give. Hibbert et al (2007) investigated agent knowledge (knowledge about certain characteristics) and how it affects *Intention to give*. Therefore, we formulated questions and statements on whether *Prior knowledge* affects our DV.

Charities Aid Foundation (2013) found that the respondents (N=>700) gave *Personal values* a score of 97%, when given the question: "*How strongly would you say the following has influenced your desire to give to charity?"* We therefore developed questions aiming to detect this variable. In addition, Cunningham & Lischeron (1991) focused on how people's behavior is steered on duty and personal values, which led us to the question on people's duty to give. Drawn from Knowles et al. (2012) and their discussion on how moral norms affects why

people chose to give money to charity, we formulated questions about sympathy, negative thoughts on people who do not give, and whether people should give.

Questions on *Personal experience* was all gathered from the survey conducted by Charities Aid Foundations (2013), where religion, politics, own knowledge, and personal experience where all central for several people for why they gave to charity. *Player types* were constructed as done by Yee (2006), and *Consumer confidence* was drawn from Tns-Gallup (2016). All questions was thoroughly structured and formulated on the basis of several pretests (see part 3.7, pre-test of questionnaire). All statements and questions were worded in a way that it could not create any misunderstandings towards the respondents. This was carefully checked for by conducting several pretest interviews (cognitive interviewing), which is described later in this study.

Of the 35 asked questions, 27 were statements, where 22 of these statements used a seven-point Likert scale. Five of the statements that did not use the seven-point Likert scale were related to *Consumer confidence*, which already had an established measurement. The question regarding the moderator *Player type* used a nominal scaling, where respondents had to choose between different alternatives that fitted their beliefs when playing a game of sort. Each alternative corresponded to one of the four *Player types*. Demographical questions as age, sex, education, income and charity habits were also included. The questions regarding age and income were continuous, sex was categorical, education was ordinal and charity habits were interval (raging from zero to 3000+ NOK in donations). Education was divided into *primary and secondary school, high school, university degree* (bachelor) and *university degree* (masters or higher). Charity habits investigated respondents' earlier donations, both in number of donations, and sum donated. This provided descriptive information on our sample. An example of a statement that was included in the questionnaire: *By using "Helping the world", I want to donate more to charity compared to what I have done earlier.* The response alternative was a seven-point scale, ranging from strongly disagree to strongly agree (representative 1-7) (appendix 1).

A high score in the Likert scale suggest that the respondents are agreeing to the statements. If the respondents from the TG had a higher mean in the questions

regarding *Intention to give* compared to the NTG, it implied that gamification could have a positive effect on respondents *Intention to give*. Looking at the question regarding *Player type,* the respondents had to choose two statements that best fitted their playing habits, and two that fitted the least. This made it possible to divide the respondents into groups (*achiever, socializer, killer,* and *explorer*), and see how the different groups differed in *Intention to give* and their effect on each IV.

3.2.1 Helping the world

This study designed two online platforms called *Helping the world* that shared as many similarities with a standard charity website (redcross.org and unicef.org) as possible. In the questionnaire, a randomized principle was implemented, making it a 50/50 chance for which platform a respondent got exposed to. In the description below, respondents will correspond as *donors* in the description of the platform.

3.2.2 The Gamified platform

Once a donor enters *Helping the world* one can choose to enter *My Community* (we underline that the platform is in Norwegian because Norway is the country where the study took place), and further visit *My Profile* (appendix 2). *My Community* is the manipulation that separates the gamified platform compared to the standardized charity platform. *My Profile* contains the gamification elements of feedback, points, mastery, goals, collaboration and a community. These gamification elements are believed to have the highest effect on the respondents, and are all drawn from Pahari (2013), and his book Loyalty 3.0, as well as being discussed in the literature review.

We use badges in a way that symbolize a person's activity (appendix 3). In our fictive platform, these badges are *The well builder*, *The Carpenter*, *The gardener*, and *The contributor*. For instance, a donor will receive *The well builder* if the donor donates a specific amount that counts for a well. This is a form of feedback, where the donors can follow their progress on how their money is specifically used. Moreover, *My profile* also has a *Barometer* that shows how far a project that the donor has given money to is from reaching its specific goal. This *Barometer* is believed to function in the same manner as goal in a game, that is, a donor will get the same satisfactory feeling of winning a game once a project has reached its goal. Reaching one's goal, and getting a satisfactory feeling, is a form for mastery,

because it provides evidence for your completion and success of getting something done (Kapp, LinkedIn 2015, and Werbach & Hunter 2012). Therefore, we believe that this *Barometer* will increase *Intention to give* based on positive visual feedback that gives the donor a feeling of mastery. Another feedback tool is the "generosity box", where donors can view their total donation.

Donors can connect with other donors and visit their profile by clicking on *Donor- friends* (appendix 4). This creates a community where donors can share experience, stories, and also see what charity projects others are supporting. The platform also provides information on specific projects that needs special attention at this time. In this study only six of such project is chosen, but the concept is to get donors more engaged in the causes they chose to support. Another way of increasing engagement, which also is frequently used in real charity websites, is real life picture that clearly illustrate human emotions, and the importance of every donation. However, the gamified platform differ some in the use of real life picture, because a donor can only see specific pictures on the profile when the donor has supported a specific cause. For instance, if a donor supports a building of a school in Nairobi, a picture of a similar school (appendix 4) will be shown under *My contribution*. Furthermore, when a donor enters the *Donor-friends* it is possibly to watch a collection of real life pictures that illustrates the total donations the donors and the donor-friends has supported. The platform also provides direct links to social media tools, such as Twitter, Facebook and Instagram, which makes it possible for a donor to share both experience and achievements gained in the platform.

3.2.3 The regular platform

The regular charity platform, which half of the respondents were exposed to, did not contain the gamification elements. Otherwise. it was completely identical to the gamified platform. In other words, the gamified elements represented the treatment that only half the respondents got exposed to. This represented a key element in this study, and one that made it essential to pretest the two platform in order to detect and remove any noise the respondents could perceive, which would affect their answers (appendix 5).

3.3 Validity and reliability

In order for the findings in this study to be as realistic as possible, two supporting foundations were focused on, validity and reliability. These foundations are critical in developing an overviewing evaluation of any marketing research. The following paragraphs contain general knowledge about these two. Special attention to precautions and analyses made to reduce the threat possessed form these criteria's will be presented in the section on data examination and results.

Validity aims to test how well a concept (here, experiment) corresponds to true differences among objects being measured (Malhotra 2010, 320). This study will discuss and account for internal validity, but will also discuss external and ecological validity in the discussion part of this study.

Internal validity is concerned with the degree to which the conditions used in the experiment are valid within the restrictions made (Burns & Burns 2008, 427-431). To check a research study for the degree of internal validity is essential because a study is often conflicted by undesirable variables. This study will firstly focus on content- and construct- validity, but will later use partial least square regression (PLS) to compute the convergent- and discriminant- validity, both relating to construct validity.

Content validity shows evidence on whether the content of a study corresponds to the content of the construct it was intended to cover (Field & Miles 2010, 681). In order to ensure content validity, several pre-tests for both platforms and the questionnaire were conducted. In other words, feedback from representative respondents increased the realism and understanding of both platforms and question formulations.

Construct validity indicate to what degree the constructs account for the variability on the items used. It detects what construct or characteristics the scale is measuring (Burns & Burns 2008, 430-431, and Malhotra 2010, 320-321). This study tried to provide as many supporting theories and studies possible in the choosing of items: hypothesis, model, questionnaire and platform. Nevertheless, since gamification is a quite new field of study, some items are based on our own knowledge and assumptions, which in turn makes it more fundamental to

investigate the construct validity. In the data examination paragraph an internal consistency analysis between items in the construct will be presented through PLS, this will provide either a positive or negative support for our construct validity.

Reliability is the extent to which results are consistent when the measurement is repeated (Malhotra 2010, 318). Cronbach's alpha is a useful tool for measurement as it shows a reliability level that indicates whether the items are measuring the same construct, and whether it exist internal consistency among the different scales (Burns & Burns 2008, 417, and Malhotra 2010, 319). However, in this study PLS will be used to investigate composite reliability instead of Cronbach's alpha. Both concerns reliability, but composite reliability is more appropriate when using PLS (Wong 2013). As well as conducting a test for reliability with composite reliability, a specific order in the questionnaire was implemented in order to reduce the possibility for systematic error. That is, avoiding certain question to influence following questions.

3.4 Pretests of platform

Two control groups were created, where one got the treatment and the other did not. That is, the first control group was exposed to the regular charity platform (NTG) and the other to a gamified platform (TG). This is called a static group design, due to the use of a treatment for a nonrandomized set of group (Malhotra 2010, 259-260). The pretest consisted of 10 respondents, divided with five people for each group.

After the exposure of the two different platforms, the participants were asked six weighted questions, with a seven Likert scale, and one open question in order to measure their perception on how realistic the platforms was perceived. That is, its content, structure and information provided. A rule of thumb is that the sample size of the pretest is relatively small, varying from 15-30 (Malhotra 2010). In this validity test, a total of eight pretests were executed. Four pretest on both platforms with 10 respondents each, making it a total of 40 respondents for the pretests. Modification, based on respondents feedback, was implemented before every pretest.

3.4.1 Pretests

The NTG showed a positive perception with an overall mean of 2.63, were a mean of 1 would be most optimal. The TG had an overall score of 2.5. Both groups perceived the content to be realistic and high likeliness of finding a similar website on the Internet. In an open comment section presented at the end, two respondents got us aware about some minor writing mistakes, another respondent wrote about the lack of a "going-back" button. In addition, we should link together each activity the platform offer, for instance once you enter a specific project you will automatically be brought to our "be involved" site. The second pretest got a mean of 2.43 and 2.37 for respectively the TG and NTG, which is an improvement from pretest 1. Three of the ten respondents wrote that it was some uncertainties over specific activities that the charity organization provided. The third pretest included a short summary of activities that the charity organization provides. However, the TG and NTG only gave a mean of respectively 2.73 and 3.1. The feedback included a lack of knowledge on how one could donate to a cause and that it be possible to choose among different ways to perform a donation. In pretest four, the TG gave solely positive feedback, reflected with an overall mean of 1.93. The respondent perceived the platform as very realistic, given an average mean of 1.6 when asked question about the webpage realism. The NTG also gave positive feedback, with an overall mean of 2.86. We could therefore with confident state that our two web pages was developed enough, and move to the next step, pretest the questionnaire.

Table 1: Summary of pretest regarding realism in the two platforms:

1-7 scale where 1 is best	Mean of realism NTG	Mean of realism TG
Pretest 1	3.3	1.7
Pretest 2	2.6	1.5
Pretest 3	2.2	1.5
Pretest 4	1.8	1.6

In order to detect and eliminate potential problems, a pretest of the questionnaire was constructed.

3.4.2 Pretest of questionnaire

A questionnaire design checklist developed by Malhotra (2010) was used to ensure that the questionnaire would overcome potential problems, and gain the necessary data for the analysis. The pretest was conducted with 12 respondents that were a sample of our targeted population. Six got the treatment and six did not (TG and NTG). We asked each respondent individually to complete the questionnaire while thinking out loud. This approach is referred to, by Beatty & Willis (2007), as cognitive interviewing. Probing, a specific cognitive interviewing technique used in this study, contains an interviewer who encourages the respondents while answering questions. That is, asking question like *"can you tell me in your own words what that question was asking?*" (Beatty & Willis, 2007).

Malhotra (2010, 338-353) formulated a question design built to unveil all possible confusion surrounding the questionnaire. Our questionnaire borrowed this technique and designed following "checklist" (Table 2) (although it was presented in Norwegian for the respondents)

Table 2: Questions asked in pretest of questionnaire

Is the question easy to understand?
Is the question necessary?
Are several questions needed instead of one?
Is the respondent informed?
Can the respondent remember the information from the platform while answering?
Does the questionnaire require sensitive information?

All interviews were conducted over a 10 days period. Changes, if needed, were made after three respondents had completed the interview. Meaning that the next three interviews always received an updated version. Changes that was more vaguely or unclear was only corrected for if more than one interviewee pointed it out. The pretest was carried out until all uncertainties with the survey were cleared out. In total, 12 respondents were interviewed in this pretest regarding the questionnaires.

3.4.4 Pretests

In the first pretest, three respondents were individually asked to investigate *Helping the world,* while simultaneously being asked follow-up questions. The researchers informed the three respondents about the essence of the pretest. After interviewing each respondent for 15-20 minutes, the researchers got feedback regarding changes that could be done, and detected vague or unclear questions that needed to be modified. The exact same procedure was used for the other pretest. Only four pretests were completed, because number of feedback gradually reduced, and it was noticeable that the feedback focused on questions that already had been rewritten back and forth. Hence, we interpreted this as a clear signal that the questionnaire now was formulated in an understandable manner. All the changes that were done during the four pretests are summarized in table 3.

Table 3: Changes made after each pretest, questionnaire

Changed after pretest 1:
Modify the sentences regarding *Helping the world* to make it even clearer that the question referred to *Helping the world*, and not another charity organization.
The order of some questions was changed in fear of priming effect (Hartsuiker & Westenberg, 2000. *(TYNN)*)
Highlighted that the answers would be strictly anonymous.
We merged two questions that consisted of three statements each into one question with six statements.
Changed after pretest 2:
The introduction was modified, creating a more understandable language.
A couple of questions was rewritten regarding the language.
Question 7, regarding Word-Of-Mouth (WOM), was devided into two questions. One question regarding WOM to family and friends and one question regarding WOM in social media.
A couple of the alternatives in the question about player types (question 13) was unclear, and was therefore modified.
The questions regarding Consumer Confidence (question 19-23) had also some minor modifications regarding the language and change of sequence.
Changes after pretest 3:
The response alternative changed from vertical to horizontal, and with the most disagreeable answer first.
The introduction was made in an even more straightforward use of words.
Two questions that contained the words “motivated” and “intention” was rewritten because the words caused some confusion due to difficulties in separating them.

Changed after pretest 4:
The questions regarding consumer confidence were restructured so that the ending became the start of each question. This made the syntax more correctly expressed.
The question detecting different *Player types* was reformulated, making it clear that each respondent had to choose the two most important and two least important alternatives out of the 12 alternatives presented, even though some wished they could choose among other alternatives.

3.5 Data collection

A set of different methods for calculating sample size was reviewed. Green (1991) made two rules of thumbs when deciding the minimum acceptable sample size for a multiple regression analysis. The first rule is about the fit of the model, where the following calculation is given: 50+8*k* where *k* is the number of IVs. The second rule is about testing the IVs by using a minimum sample size of 104+*k.* In this study, this gave us a minimum sample size of 50+ (8*4) = 82 when looking at the fit of the model, and minimum sample size of 104+4 = 108 when testing the IVs effect on the DV. This study had two treatments, which gave us a measurement of minimum 216 respondents.

3.5.1 Sampling technique

To be able to gather respondents, representative from the population of Norway, a mixture of purposive, convenience and snowball sampling method was used. Respondents over 40 years of age were first targeted, as these people are harder to reach for two students. Afterwards, younger respondents were targeted. The next step in collecting respondents was to directly contact people that were within our target group (purposive sampling). All the contacted respondents were also asked if they wanted to distribute the survey to their friends (snowball sampling). The survey was also distributed across different online groups (Facebook-groups and forums), as well a distributed directly to friends, and people at BI Norwegian Business School (convenience sampling).

3.5.2 Procedure

The distributed survey investigated the three different drivers (*Personal values, Prior knowledge* and *Personal experience)* of *Intention to give*. There were also questions and scenarios that aimed to detect whether *Player type* and *Consumer confidence* had a moderating effect on the relationship towards respondents *Intention to give.* After exposure to the charity platform, all the respondents was

given the exact same questionnaire, in order to measure possible differences among the two groups regarding their *Intention to give*.

After getting contentment results from both the validity and reliability tests from the charity platforms and the survey, the study was carried out. The next chapters will look at the results of the study, and discuss the findings.

4.0 Data examination and results

In the data examination several methods was used to investigate the affect of gamification. Firstly, a factor analysis investigated which items that should be included in the model and the analysis. Further, several analysis and tests, such as multicollineraty, ANOVA, T-test, multi-group analysis and regression analysis, were performed to investigate and make it possible to conclude if our conceptual framework could tell whether gamification increased intention to give money to charity.

4.1 Characteristics of respondents

The sample was drawn form the population in Norway where a total of 235 completed respondents, where the age ranged from 17-66 years, and the mean age was 30,23. The sample consisted of 127 men (55%) and 108 (45%) women. The sample was divided into four education groups, (elementary, high-school, one or three year university degree, and master's degree), where 79.1% of the sample had one type of degree from the university. Income ranged from zero to 1.7 million NOK. Number of people giving to charity was 155, while 80 did not give. Of the completed respondents, 129 (54.9%) got the treatment (gamified charity platform), and 106 (46.1%) of remaining respondents got no treatment (a regular charity platform). For *Player types* the respondents corresponded to 116 socializers, 57 achievers, 32 killers, and 30 explorers. All in all, satisfaction with the diversification of the respondents' demography was achieved. In table 5 the construct created from the selected variables will be shown, with mean, standard deviation, skewness and kurtosis.

Table 5: Descriptive of constructs

Construct:	N	Mean	Std. Devation	Skewness	Kurtosis
Intention to give	235	3.9248	1.20561	-0.252	-0.450
Prior Knowledge	235	4.7585	0.99246	-0.947	1.162

Personal Experience	235	3.9149	1.06758	-0.079	0.292
Personal Values	235	5.2545	0.93485	-0.924	2.034

The mean is the mean-score from the 7-point Likert scale, where 1 is strongly disagree and 7 is strongly agree. This mean that a score under 4 is more negative, while a score over 4 is more positive. The Std. Deviation shows us how spread our data is from the mean. A lower number indicates a more gathered data. The Skewness shows how symmetric the answer of the respondents is, while the Kurtosis shows how the data is tailed (heavy/light)

4.2 Establishing the construct

A first step for any researcher is to determine whether it is meaningful to conduct a factor analysis. *Janssens et al. (2008)* presents three assumptions a factor analysis should cover in order for it to be meaningful. (1) The measurement should be interval or ratio, however, a Likert scale (ordinal) is also equivalent due to equal weight between each option. (2) All variables must have the same level of measurement, e.g. that 1= strongly disagree and 7= strongly agree counts for all variables. (3) A factor analysis must contain a minimum of 100 respondents. Based on these assumptions, we found it meaningful to conduct a factor analysis where a total of 22 items was concluded in the factor analysis.

A factor analysis requires an investigation on Kaiser- Meyer- Olkin measure of sampling adequacy (KMO), which shows the degree of correlation (Janssens et al. 2008). Our factor analysis received a KMO of 0.820, which is satisfactory knowing that a KMO> 0.5 is the minimum acceptance level. The Bartlett's test of Sphericity obtained a significant level of 0.00, which means that the variables have a degree of correlation with each other. In other words, it exist an underlying factor providing a specific grouping of our variables, which makes the factor analysis meaningful.

This study uses an EFA (Exploratory Factor Analysis), to determine which factors that should be included in the model, and thereafter a CFA (Confirmatory Factor Analysis) to test if the chosen variables have a significant impact on the constructs. The first step to determine which factors that was included in the model, was to include all 22 items in a PCA (principal component analysis) that demonstrates how many components that are needed to explain a specific

percentage of the total variance. A common way to determine which factor to include is to look at factors with eigenvalue above 1 (known as *Kaiser's rule*), which indicates that a component with an eigenvalue of 1.5 accounts for the same variance as 1,5 other component would have (Burns & Burns 2008). In our PCA, 6 components had eigenvalue above 1, and accounted for 63.558 % of the total variance. These 6 components were used in the next step.

The rotated component matrix is a valuable output from the PCA as it shows how many variables that load on each factor after rotation. That is, rotation separates the relationship between a variable and a factor (Janssens et al. 2008). This makes it easier to see which variables that relates to which factors. A restriction in the rotated component matrix was made to only depict the correlations that exceeded 0.3, this was done in alignment with Janssens et al. (2008) discussion on number of factor loading to include in referral to sample size. It should be noted that our sample size of n=235 best fit with loadings between 0.35 and 0.40, but it was decided to broaden the search because some loadings could be hard to detect due to their psychological aspect. For our 6 components, the output showed that component number 6, had few variables loading to their component, or had variables that were loading stronger to other components in the analysis. Thus, it was decided to exceed with five components. The same analysis was done over again, where the output showed that 4 components had strong enough loadings attached to them. These components were used further to develop the model.

Prior to PCA the questionnaire formulated in this study was based on both previous literature and own knowledge and assumptions. However, it is always an uncertainty to which construct each question correspond. Hence, it was satisfactory that the factors clearly showed consistency in type of variables that loads on our construct. 1) was *Intention to give* (DV), 2) was *Personal values* (H4a), 3) was *Personal experience* (H3a), 4) was *Prior knowledge* (H2a). Component number 5 contained five items, where three of the items at a stronger loadings towards other components. The fifth components was therefore looked as to weak in this analysis, with only two items with sufficient loadings, and was not included in the model and hypothesis testing. A summary of variable loadings and constructs is presented in the table below.

Table 6: Rotated Component Matrix

Variables:	Construct 1	Construct 2	Construct 3	Construct 4
Want to donate more	0.752			
Want to continue donate	0.731			
Future donations	0.768			
Long-term relationship	0.797			
WOM Family	0.840			
WOM Social Media	0.695			
Sympathy		0.587		
Duty to help people		0.817		
Everyone should help		0.826		
Negativity towards people not helping		0.570		
Sympathy for people leaving in poverty		0.735		
Own knowledge			0.555	
Influence of acquaintance			0.613	
Political view			0.535	
Religious faith			0.659	
Personal experience			0.677	
Knowledge of where my money goes				0.630
Info about need for donations				0.776
Platform providing sufficient information				0.363
Media				0.592

4.3 Test of the construct

After conducting a PCA, it is clear which items that belong to which construct in the model, and it is now possible to test the hypothesis. Structural equation modeling (SEM) is a multivariate analysis method used to test for linearity and causality (Wong 2013). SEM consists of three approaches, this study conducted one of those, namely Partial Least Squares (PLS) using the software tool SmartPLS. PLS is useful for analyzing components instead of covariance, and therefore the components obtained from the PCA was implemented in the model.

Before analyzing the model and all the constructs together, a multicollinearity check was conducted. If correlation between two variables exceeds 0.90, it implies that they are measuring the same variance (Burns & Burns 2008), making one of them redundant, which can give unwanted results in the analysis. In the output collected from *Collinearity Diagnostics* in the linear regression, it was shown that the highest condition index was 22.071. An index over 30 indicates a multicollinearity problem of correlation above 0.90 (Janssens et al 2008, 163). It was therefore concluded that multicollinearity was not present.

4.3.1 Test of the reliability and validity of the construct

Before analyzing the hypothesis, and accepting or rejecting them, it is essential to check how valid and reliable the items, the constructs and the model are. A common tool to check for internal reliability is the Cronbach's alpha, however the analysis tool used in the structure equation model, SmartPLS, tends to provide a more conservative and not as reliable measurement from Cronbach's alpha. It is therefore recommended to look at Composite reliability instead. (Bagozzi & Yi 1998, and Hair et al. 2012)

Internal consistency reliability provides information on whether the compositions made in the PCA are consistence. That is, whether the different compositions are measured correct and reliable. For instance, respondents answering positively to donate more in the future should simultaneously be positive to continue donating. The composite reliability should exceed 0.6 to be internal consistence. The following table shows strong reliability for *Prior knowledge* (0.797), *Personal experience* (0.722), *Personal values* (0.856), and *Intention to give to charity* (0.914).

Table 5: Summary of validity and reliability

Latent Variable	Indicators	Loadings	Composite Reliability	AVE
Prior Knowledge	Media	0.503	0.797	0.503
	Info_need	0.713		
	Knowledge_money	0.851		
	Sufficent_information	0.724		
Personal Experience	Own_knowledge	0.333	0.722	0.363
	Politic	0.497		
	Religion	0.484		
	Influence_acquaintance	0.813		
	Personal_experience	0.752		
Personal Values	Sympathy	0.708	0.856	0.549
	My_sympathy	0.781		
	Duty_to_help	0.820		
	E_should_help	0.831		

	Negative_thoughts	0.520		
Intention to give money	Want_donate	0.805	0.914	0.642
	Want_continue	0.859		
	Future_donations	0.863		
	LTR	0.808		
	Family	0.812		
	Social_meida	0.602		

Convergent - and discriminant validity relates to construct validity. Therefore, if both receive satisfactory scores one can assume sufficient construct validity. Convergent validity evaluates all latent variables average variance extracted (AVE), and investigate whether related measures in reality relates. AVE holds an acceptable threshold of 0.5 (Bagozzi & Yi 1988). The table above shows that *Personal experience* received an AVE of 0.361. However, Fornell & Larcker (1981) argued, in their well-cited article, that a construct obtaining a composite reliability above 0.6 and an AVE below 0.5 still possess an acceptable convergent validity of the construct. *Prior knowledge* has an AVE of 0.503 and *Personal values* scored 0.549.

Discriminant validity is calculated with the square root of AVE, and is fundamental for determining if measures that should not relate, in reality relates. The table under shows well-established discriminant validity to our constructs, *Intention to give money, Personal Experience, Personal values* and *Prior Knowledge*. This statement is based upon the fact that discriminant validity is achieved when the AVE squared is larger than the other correlations (Wong 2013), as the highlighted number in the table shows.

Table 6: Discriminant Validity

	Intention to give money	Personal Experience	Personal Values	Prior Knowledge	Platform
Intention to give money	**0.801**				
Personal Experience	0.208	**0.509**			
Personal Values	0.334	0.150	**0.742**		
Prior Knowledge	0.559	0.140	0.200	**0.709**	
Platform	0.088	0.196	-0.012	0.029	**1.000**

4.3.2 Hypothesis testing of Independent variables

After having conducted several analysis and concluded that the items and the constructs in the model is valid and reliable, it is now possible to investigate the relationship between the construct, and to accept or reject hypothesis. In this section an investigation of H2a (*Prior knowledge → Intention to give),* H3a (*Personal experience→Intention to give)* and H4a (*Personal values→Intention to give)* will be tested. After analyzing these effects, H2b, H3b and H4b (*Type of platforms effect on H2a, H3b, H4b)* will be analyzed throughout a multi-group analysis. The main effect of *Type of platform* and its relationship on *Intention to give* will end this section.

In the established PLS model each structure represent either an endogenous- or an exogenous variable. Endogenous variables contains at least one path leading to it simultaneously as it affects other variable(s), while exogenous variables only contains arrows leading away and none towards it (Wong 2013). Here, *the Platform*, *Player types*, and *Consumer Confidence* are exogenous variables, and the IVs and DV are endogenous. The model analysis shows paths coefficients and T-values, and whether each of the paths is significant with significant level of 95% (p-value <0.05).

The effect *Prior knowledge* has on *Intention to give* has a path coefficient of 0.506 and a p-value of 0.000. This indicates that *Prior knowledge* has a strong effect on a respondents *Intention to give*, and support H2a; *a respondent with high Prior*

knowledge towards charity will have higher intention to give to charity, than a respondent with low Prior knowledge.

Personal experience's effect on *Intention to give* has a path coefficient of 0.094 and a p-value of 0.180. This indicates that *Personal* Experience do not effect *Intention to give*, and do not support H3a; *A respondent with more Personal experience with charity will have higher intention to give to charity, than a person with lower Personal experience.*

The effect *Personal values* has on *Intention to give* is positive with a path coefficient of 0.211 and a p-value of 0.000. This finding support H4a; *A respondent's Personal values will have positive effect on intention to give money to charity.* A summary of the effects in the model is depict in table 7.

Table 7: Variable relationship strength

Variable relationship	**Path Coefficient**	**T - Statistics**	**P- value**
Prior Knowledge→Intention to give	0.506	10.357	0.000
Personal Experience→Intention to give	0.094	1.350	0.180
Personal Values→ Intention to give	0.211	4.070	0.000

Further, an analysis of comparing the two groups, *Treatment (TG)* and *No-treatment (NTG)* was conducted. It shows that *TG* (gamification) has a negative effect on H2a and H4a, while having a positive effect on H3a. The *TG* have a path coefficient of 0.506 (p-value 0.000) on *Prior knowledge→Intention to give* (the t-statistics is reduced from 10.357 to 8.318), compared to *NTG* that had path coefficient of 0.540. When looking at *Personal values→Intention to give*, the *TG* has a path coefficient of 0.192 (p-value 0.025), while *NTG* have path coefficient of 0.274 (p-value 0.000). When looking at *Personal experience→Intention to give,* the *TG* had path coefficient 0.195 (p-value 0.298), compared to the NTG, which had a path coefficient of 0.034 (p-value 0.712). The analysis of comparison of NTG and TG rejects H2b and H4b but support H3a.

A multi-group analysis was also conducted to investigate if the effect of *TG* and *NTG* was significant to each other. This analysis shows no significant differences

between the two groups, and their effect on *Intention to give.* The findings are summarized in table 8.

Table 8: Multi-group analysis TG vs. NTG

Variable relationship	Difference in Path coefficient	Significant difference (p-value)
Prior Knowledge→intention to give	0.034	0.660
Personal experience→intention to give	0.161	0.166
Personal values →intention to give	0.081	0.777

The main effect gamification have on *Intention to give* (H1) is analyzed trough a one sample t-test, where a comparison of means between *TG* and NTG will be carried out. Firstly a descriptive mean test was completed, to look at the mean between *Gamified charity platform*Intention* and *Regular charity platform*Intention* (these two variables was computed by taking type of platform multiplied with intention variable). A comparison of the means, using a one-sample T-test was then analyzed, which provided a strong indication towards a significant difference in favor of the gamified platform, implying that respondents affected by gamification (TG) have a higher *Intention to give* compare to the other group (NTG). The analysis gave us a significant score of 0.043. This support the H1; *A gamified charity platform will have a positive effect on a respondent's intention to give to charity, compared to a regular charity platform.*

4.3.4 Hypotheses testing of moderators

The next step in the study is to investigate if the moderators have a moderating effect on the relationships between the IV's and the DV.

Firstly, an ANOVA is conducted to see if there are significant differences between the moderating groups, when looking at *Intention to give.* Before this was carried out, *Player type* and *Consumer Confidence* was divided into groups. *Player types* was divided into equal amount of respondents in each player type, relevant to what they answered in the survey (30 respondents in each group), to erase possible problems with uneven sample sizes. *Consumer confidence* was divided into *negative consumer confidence*, *neutral consumer confidence* and *positive consumer confidence*, in relate to what they answered in the survey.

The One-way ANOVA analysis gave no significant difference between *Player types* and their *Intention to give* (p-value 0.152). However, a Multi-group analysis

will be conducted to see if there are significant differences within the *Player type* on the different construct in the model.

A second One-way ANOVA was conducted to check whether there were significant differences between the consumer confidence groups towards *intention to give.* negative assumption for this variable was justified. The ANOVA analysis showed no significance between the *Consumer confidence* groups and their *Intention to give* (p-value 0.795). However, a multi-group analysis will also be conducted to see if there are differences between the groups across the constructs.

To get a deeper understanding of the moderators, and their effect on the other variables, a moderating effect in the structural equation model was added. As mention in the previous paragraph, *Player type* was divided into a equal number in each group (30 respondents in each group), whil *Consumer confidence* where divided into three groups; *negative CC, neutral CC and positive CC. Consumer confidence* was calculated to be overall negative (Ludvigson 2004) in the sample.

The moderators did not show big impacts on the IV's relationship on the DV. *Player types have* a negative effect on *Prior knowledge→intention to give* and *Personal values→Intention to give* while it have a positive effect on *Personal experience→intention to give.* Looking at the other moderator, *consumer confidence* it also create a negative effect towards *Prior knowledge→intention to give* and *Personal values→Intention* and a positive effect on *Personal experience→intention to give*. A summary of the moderating effect will be presented in table 9 below.

Table 9: Moderating effect

Variable relationship	**Moderating effect (t-value): Player type**	**Moderating effect (t-value): Consumer Confidence**
Prior Knowledge→intention to give	-0.053	-0.060
Personal experience →intention to give	0.013	0.043
Personal values →intention to give	-0.053	-0.069

The next step in analyzing the moderators is to see if there are any significant differences between the moderators, and their effect on IV's. A partial least squares multi-group analysis (PLS- MGA) will therefor be conducted. The calculations from the PLS-MGA showed no significant difference between the

Achiever and *Non-Achiever* in our study. Significant differences between the *Socializer* and *Non-Socializer* were neither to bee found. Significant differences were though to be found between *Killer* and *Non-Killer.* The gamified charity platform (TG) gives a significant difference in effect towards *Personal experience* when comparing a *Killer* to a *Non-Killer*, with a difference in path coefficient of 0.819 (p-value of 0.022) (difference path-coefficient of 0.828). There is also a significant difference between *Killer/Non-Killer* when looking at the effect gamified platform have on *Personal values,* with a p-value of 0.021 (path coefficient of 0.505) The MGA received no significant differences between the *Explorer* and *Non-Explorer* as well as TG and NTG in the data set. The MGA shows a significant difference between people with a negative *Consumer confidence* vs. those who are positive when comparing *Personal values→ Intention to give*, but no significant differences in negative vs. neutral *Consumer confidence.*

The analysis shows significant difference between respondents with *Neutral vs. Positive Consumer confidence* when looking at the effect *Personal values → Intention to give.*

4.4 Relationship between Independent and Dependent variable

Before the investigation of the conceptual framework as a whole, the commonly used analysis linear regression will be conducted. It explains the relationships between the independent variables and the dependent variable. The first part of the linear regression analysis is to look at the Adjusted R Square, which shows how good the IV actually affects the DV. The Adjusted R Square in this analysis is 0.322, which we perceived to be an equivalent score due to the psychological aspect of the variables. The next step to see if a linear regression can be used is to look at the ANOVA table. The table shows strong significance, (0.000) which indicate that the model has explanatory power, and a linear regression analysis can further be used.

In the linear regression output, the intercept (constant) *Intention to give* received a negative beta coefficient, when all the other variables equal to zero. This makes sense since all the variables in this study have a variable from 1-7, meaning that the equation for all respondents will be positive. The *Gamification charity platform* is a dummy variable with 1 for the TG and 0 for the NTG, and a positive

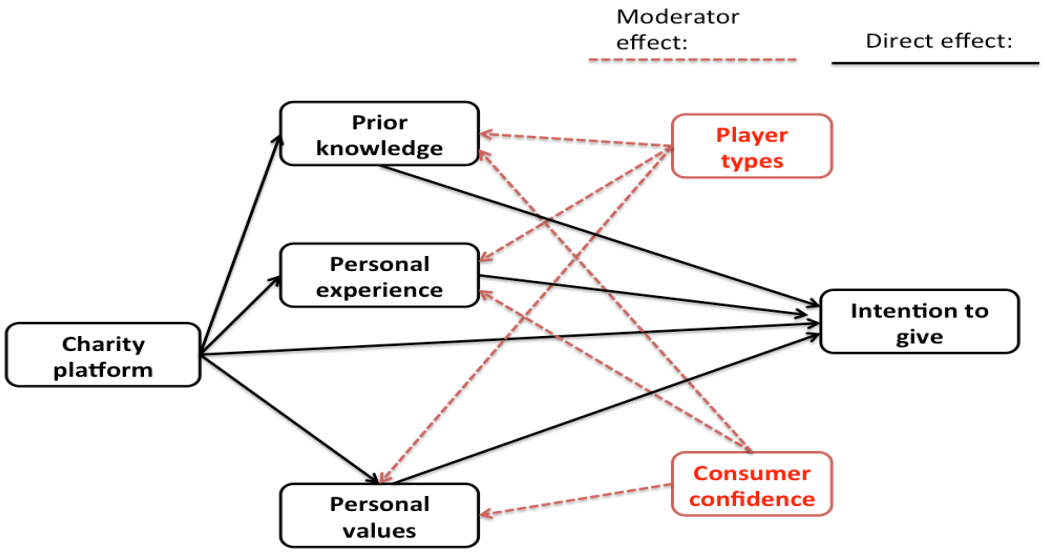
coefficient of 0.188 indicate a higher *Intention to give* for the TG. *Prior knowledge* (0.586), *Personal experience* (0.066), *Personal values* (0.280), *Achiever* (-0.141), *Socializer* (-0.163), *Killer* (-0.098), *Explorer* (0.143), *Consumer confidence* (0.057). The following equation represent the regression, and our conceptual framework: *Intention to give* (Y) = Gamification charity platform (X_1) + *Prior Knowledge* (X_2), *Personal Experience* (X_3) + *Personal Values* (X_4) + *Achiever* (X_5) + *Socializer* (X_5) + *Killer* (X_5) + *Explorer* (X_5) + *Consumer confidence* (X_6) + ε.

Each respondent received 1 for the *Player types* they correspond to, making the other three irrelevant. *Consumer confidence* corresponds to 0 (negative), 1 (neutral) and 2 (positive). The rest of the IVs are Likert scales, and thus varies between 1 till 7. To make it even more clear what the different DV's means, respondent number 2 will be presented. This respondent got gamified treatment and was the player *explorer*. The following equation on this respondents *intention to give* will be as followed: -0.708 +0.188*1+ 0.586* 3.5+0.066*3.4 +0.280*5.2 +0.143 *1 +0.057*1.8 = 3.457.

4.5 The relationship between the variables in the framework.

Now as all the items relevant to this study have been carefully analyzed trough factor analysis, validity and reliability checks, comparison analysis and regressions analysis, it is time to present at the model as a whole.

Figure 2: Conceptual framework



In the model above each structure represent either an endogenous- or an exogenous variable. Endogenous variables contains at least one path leading to it simultaneously as it affects other variable(s), while exogenous variables only contains arrow leading away and none towards it (Wong 2013). Here, *the Platform*, *Player types*, and *Consumer Confidence* are exogenous variables, and the IVs and DV are endogenous. The PLS show all paths coefficients and whether each path is significant with significant level of 95% (P-value<0.05), as well as providing T-statistics.

The model also gives several analysis scores, where Adjusted R-square is telling how good the model fits the data. The adjusted R-square to the DV is 0.426. Since this study examines human behavior, this score is not perceived as low. The model also predicts significant effect of *Prior Knowledge* and *Personal Values* on *Intention to give*. All the effects from the conceptual framework is presented in the table below.

Table 10: Summary of Variable relationships

Variable relationship	**Path Coefficient**	**T - Statistics**	**P value**
Gamification Platform→ Intention to give (h1)	0.079	1.5111	0.131
Gamification Platform→ Prior Knowledge (h2b)	0.029	0.420	0.674
Gamification Platform→ Personal Experience (h3b)	0.195	1.011	0.312
Gamification Platform→ Personal Values (h4b)	-0.012	0.177	0.860
Prior Knowledge→ Intention to give (h2a)	0.502	9.569	0.000
Personal experience→Intention to give (h3a)	0.087	1.114	0.265
Personal Values→Intention to give (h4a)	0.241	3.942	0.000
Moderators:			
Player type→Prior Knowledge→Intention to give	-0.053	0.910	0.363
Player type→Personal experience→intention to give	0.013	0.180	0.857
Player type→Personal values→intention to give	-0.053	0.749	0.454
Consumer Confidence→ Prior Knowledge→ intention to give	-0.060	1.034	0.301
Consumer Confidence→personal experience→intention to give	0.043	0.556	0.578
Consumer Confidence→ Personal Values→ intention to give	-0.069	0.898	0.369

It is important to remember that the table above does not summarize all the findings, but only the effects variables have on each other. To be able to e.g. investigate the main effect gamification have on a respondents Intention to give, a mean comparison trough one-sample t-test was conducted. Multi-group analysis was a in another case used to analyzed to get a deeper understanding of each moderator. To end this examination and result chapter, the table below summarize of our hypothesis.

Table:11 Summary of hypothesis

Hypothesis	**Outcome (supported/not/partly)**
H1: *A gamified charity platform will have a positive effect on a respondent's intention to give to charity, compared to a regular charity platform.*	**Supported**
H2a: *A respondent with high Prior knowledge towards charity will have higher intention to give to charity, than a respondent with low Prior knowledge.*	**Supported**
H2b: *A gamified platform will have a positive effect on a respondent's Prior knowledge and its effect on Intention to give.*	**Not supported**
H3a: *A respondent with more Personal experience with charity will have higher intention to give to charity, than a person with lower Personal experience.*	**Not supported**
H3b: *A gamified platform will have a positive effect on a respondent's Personal experience and its effect on Intention to give.*	**Not supported**
H4a: *A respondent's Personal values will have positive effect on intention to give money to charity.*	**Supported**
H4b: *A gamified platform will have a positive effect on a respondents Personal values and its effect on Intention to give.*	**Not supported**
H5: *Different player types are motivated differently, affecting respondents' Intention to give.*	**Partly supported**
H6: *A negative Consumer confidence will have a negative affection on respondents Intention to give, compared to a positive Consumer confidence.*	**Not Supported**

6.0 Discussion

In recent years, gamification has become an increasingly applied marketing tool for creating stronger motivation and engagement towards their employees and customers, and thereby increasing revenues for companies. Organizations and

schools have also used gamification as a tool to enhance learning. Gamification have been proven to have positive effects on motivation, engagement and learning as mentioned earlier in this paper, although some researchers are skeptical on the effect of gamification these skepticism is often based on the poorness in the gamified design itself (Antin & Churchill 2011, and Bielik 2012). Charity is also an area of interest, that has not raised a lot of awareness in research despite its increase and that more people need external help. This study investigate whether gamification is a tool that can change engagement despite the users not receiving any physical "prize" in return. Creating the following research question:

How will Gamification influence respondents' intention to give money to charity? To what extent do respondents' Prior knowledge, Personal experience and Personal values affects the intention to give money to charity, and how will type of player and consumer confidence affect this relationship?

Two slightly different platforms were constructed to test the effect gamification can have on respondents *Intention to give*. This study confirms, through the use of a one-sample T-test that the gamified platform positively influence *Intention to give.* This finding was predicted prior to the analysis, by investigating already established theory, emphasizing on technological trends and the fact that Generation Y donates least money to charity (Guardian 2014). It was therefore with great anticipation we analyzed whether gamification in a charity setting could affect individual behavior in a different manner than the standard way of doing charity. Previous established theory investigates gamification where the participants gets something personal in return (school-grades, learning/ knowledge, money etc.), while this study investigated gamification in a setting where the participants need to "sacrifice" something to help others while only obtain "goodwill" in return. Our analysis showed a significant difference between the respondents that got gamification vs. non-gamification, and support our beliefs that gamification will increase a person's intention to give money to charity. Therefore, the findings in this study supported H1.

Opposed to the hypothesized effects, that gamification will have a positive effect on a respondent's *Prior knowledge, Personal experience* and *Personal values,* the analysis showed a slightly, but not significant negative effect *towards Prior*

knowledge and Personal values. The negative effect was somewhat surprising given that the findings in previous literature showed that gamification e.g. increased engagement and motivation that further strengthen learning in classrooms (Muntean 2011). It could be argued that drivers as *Prior knowledge* and *Personal values* are intrinsic factors that is harder to change. The result from Charities Aid Foundation in 2013 survey showed that these factors are already important drivers for why people are giving money to charity, which could indicate that Gamification can have a negative impact on already well-established beliefs. The findings in this study rejected both H2b and H4b.

A gamified charity platform had a positive effect on *Personal experience*, but the effect was not significant. Nevertheless, it is interesting, but also anticipated, that gamification had a positive effect on *Personal experience*, compared to the two other variables. Implying that respondents that have a personal experience towards charity has a stronger engagement, and therefore are more likely to give. The findings in this study rejected H3b.

Prior knowledge relates to whether respondents who possessed more knowledge on charity had higher *Intention to give*. This prediction was supported. The reason for this finding could be related to classroom experiments on which gamification techniques are best suited and how they can be implemented (e.g. Barata et al. 2015). Meaning that this study manage to enforce more information in the gamified platform in contrast the to standard platform, which in turn yield a higher knowledge prior to answering the questionnaire. Also, the discussion by Hibbert et al. (2007) that people with prior knowledge easier obtains a higher guilt arousal, which in turn increases donations, could arguable be a plausible explanation for this finding. The findings in this study supported H2a.

No support was found on *Personal experience* and its effect on *Intention to give.* It was believed that if a person perceives the cause to be in alignment with prior experience towards similar charity, organizations or life experiences, it would have a positive effect on *Intention to give.* The explanation of the findings could be found in the subjective nature of humans. It seems that factors regarding *Personal experience* have a positive impact towards *Intention to give*, but is not strong enough alone to predict the effect. The findings in this study rejected H3a.

Personal value has a positive relation with *Intention to give*. This is a satisfactory finding as it is can be linked to Ryan & Deci (2000) and their discussion on how a specific content must assimilate on a personal notion in order for a positive motivation to occur. Indicating that the respondents that accounted for the highest *Personal value* was more positive motivation and therefore recorded a higher *Intention to give.* Therefore, the findings in this study supported H4a.

Different people are motivated differently. This was the underlying logic when investigating whether different *Player types* would have different intention to give money to charity. According to this study, the H5 is partly supported. Only one of the *Player types*, *Killer*, was significantly different from the others when investigating *Intention to give*. *Killer* have a negative impact on gamification and its role to *Intention to give*, implying that *Killer* play games for a more selfish reasons, and are not effected by a tool such as gamification that want to increase collaboration and sharing across users. The findings in this study partly supported H5.

Consumer confidence is a personal believe about the economy, meaning that it is subjective, and can easily be influenced by as set of factors (e.g. media and acquaintances, as the economy as whole. This implies that the variable fluctuates a great deal. For this study *Consumer confidence* had a negative score of approximately 44 out of 100. Making the sample of this study averagely negative towards the economy (score over 50 is positive, under 50 is negative). However, the negative beliefs towards the economy did not receive a significant score. A conclusion is therefore that this variable does not significantly affect the relationship the IVs have towards the *Intention to give*. However, of interest the total intention from all respondents could be negatively affected by the score of 44, implying that the respondents are negative to the economy, which could lead to a lower intention to give money to charity. Our beliefs is that when the economy is in a recession, and people beliefs about a economy is negative, people tend to care more about their personal needs, than others living in poverty or other poor conditions. The findings in this study rejected H6.

7.0 Managerial Implications

Conducting a study aiming to improve the field of charity with the use of gamification is believed to obtain value for businesses. Making them able to recognize how gamification changes their customer's engagement and motivation towards their business. Implementing gamification in charity can be a revelation for NGOs in discovering new ways of raising money. Managers in NGOs should focus on donor's level of engagement towards their charitable behavior. Today, donors often give a monthly amount, while keeping themselves at a distant level, often not knowing anything about the cause they are supporting. One could argue that this is okay, because the organizations get their money anyway. However, focusing on increasing donors engagement with the use of gamified tools will lead to more critical and knowledge seeking donors. This could mean that the NGOs need to work hard to continue to engage donors further, and come up with new ways to communicate and interact with their increasingly demanding donors. We believe gamification is an applicable way of interacting with donors, creating a two- way collaboration between donors and the NGOs, which in turn should increase the quality of the charity. NGOs will get a better knowledge of their donors, and can easier change their strategy in different situations. E.g. an earthquake catastrophe in Asia would need different communication- and interaction methods than a fire in the rain forest to maximize the gathered funds.

A stronger control over where the money goes to, letting the donors follow visual progress with a specific cause, and creating a common platform where donors can share stories and see others charitable actions, are all activities that will increase the quality of the charity. Hopefully, will a better charity engagement further lead to higher intention and simultaneously more money given to charity. Most NGOs today are financed by a certain percentage of their overall earned money, which means if donors' generosity increases, the NGOs will also get more money. This implies that NGO's would be further developed and thereby more suited to help the people that really need it.

As this study found evidence that the gamified charitable platform has a positive effect on intention to give money, we believe managers will benefit from constructing their website, or other tools linked to their customers, in a similar

way. Several studies have aimed at answering which gamification elements to use, and when and where it is most fitting. After conducting this study we know that this question have not been answered clearly. The only way to form a sort of answer is looking at the users. This study investigated if different people had different charity habits, and are affected different by gamification. The result showed that e.g. *Killer* is negative effected by gamification, and have lower intention to give to charity. Therefore, managers must know, and thereby analyze, their customers before deciding on which gamification elements to include, in order to create positive engaged and motivated users. It should be underlined that this study used a sample with a mean age just above 30, and that many respondent was in the predefined Generation Y category, which could imply that the sample was more receptive to gamification than an elderly sample would have been.

This study is yet another evidence of the power of gamification. The concept is proven to motivate and engage users across different businesses, as the results of this study showed. People that got a charity platform with gamification elements had a higher intention to give money to charity. This finding provides evidence that NGO's could benefit by gamify their charity website, in order to increase their donor's intention to give. This study separates itself from other gamification studies in the way that participants do not get any clear benefits out from being more engaged. They even need to sacrifice more, by giving more of their own money. Looking at this study combined with previous research, we state that gamification is proven to be more than just a buzzword, and more of a complex and uncharted field in need of further research.

8.0 Limitations and further research

The contribution drawn from this study shows a new way of combining a long lasting field of charity with a more or less new field called gamification. Investigating measures for getting donors more engaged and thus aiming to increase their *Intention to give* have not previously been researched. In this study, creating a charity platform that had several gamification tools did exactly this. One group (TG) investigated a charity platform with gamification elements, while the other group (NTG) investigated a regular charity platform. Since both of the two groups used limited time in investigating the platforms, the results could

arguably display some differences compared to a real life situation, making the external validity questionable. By using respondents over a long period of time, and making them use their own money in the charity giving could make it more generalizable, as well as increasing the external validity.

The technique of testing the effect of gamification was done through a platform. We believe this was the most appropriate way of testing this concept in a charity setting, but since the participants could not create their own profile and interact with the gamification tools, the ecological validity could be questioned. This means that the study would be more valid and mimic real life if it was possible for the respondents to create their own profile, and interact with other users and the gamification tools. Moreover, the results gather from this study might not be the most optimal due to the uncertainty over which game elements that are most effective in a charitable setting. It is believed that different combinations of gamification elements should be further researched. As an example, it is unknown whether combining badges and leaderboards in a business setting are more favorable than introducing them separately.

Further research should establish gamification platforms for longer periods, and examine the long-time effect of gamification, as well as looking at the difference in money raised, instead of intention to give. Gamification is a proper tool for using elements successfully used in games, to get people more engaged through techniques that make activities more fun. Therefore, we hope that our study will be an acceptable platform for further research on gamification in charity, and moreover creating research on which gamification elements that are best suited for specific business fields.

The study had a representative set of respondents, still, further research could make it more generalizable and only investigate gamification's effect on donors. In this study a mixture of donors and non-donors was collected. People are motivated differently (Ryan & Deci 2000) when donating money to charity, creating some uncertainties to the results of this study, though it will be difficult for further research to eliminate this factor. It could however be possible to minimize this factor by only investigating the effect gamification has on people that already gives to charity, since they share more similarity in their motivations.

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10.0 Appendix

Appendix 1: Questionnaire

Our questions (in Norwegian)	Sources
Q1: Gir du til veldedighet? - Ja - Nei	
Q2: Ved bruk av *Verdenshjelpen* ønsker jeg å donere mer til veldedighet enn jeg har gjort tidligere - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q3: Ved bruk av Verdenshjelpen vet jeg hvilke veldedighetsprosjekter min donasjon går til. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q4: Ved bruk av *Verdenshjelpen* får jeg informasjon om *Verdenshjelps* behov for donasjoner. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q5: Ved bruk av Verdenshjelpen kommer jeg til å fortsette å donere til veldedighet i fremtiden. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q6: Ved bruk av Verdenshjelpen er jeg villig til å inngå en langsiktig giverforpliktelse. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	

Q7: Ved bruk av *Verdenshjelpen* vil jeg fortelle venner og familie om mine bidrag til veldedighetsprosjekter - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q8: Ved bruk av *Verdenshjelpen* vil jeg dele på sosiale medier mine bidrag til veldedighetsprosjekter. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q9: Jeg skulle ønske det fantes mer informasjon om veldedighetsprosjektene på nettsiden til *Verdenshjelpen* - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Hibbert, Sally., Andrew Smith., Andrea Davies., and Fiona Ireland. 2007. *Guilt Appeals: Persuasion Knowledge and Charitable Giving*. Psychology & Marketing. Vol. 24(8). 723- 742.
Q10: *Verdenshjelpen* gir tilstrekkelig informasjon om deres veldedighetsprosjekter. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q11: Jeg ville donert mer hvis jeg hadde hatt større kunnskap om veldedighet - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q12: Hvor ofte har du gitt et engangsbidrag til et veldedighetsprosjekt i 2015 (f.eks. gjennom TV-aksjonen)? - 0 - 1 - 2 - 3 - 4 - 5 - 6+	Charities Aid Foundation. 2013. *Why We Give.*

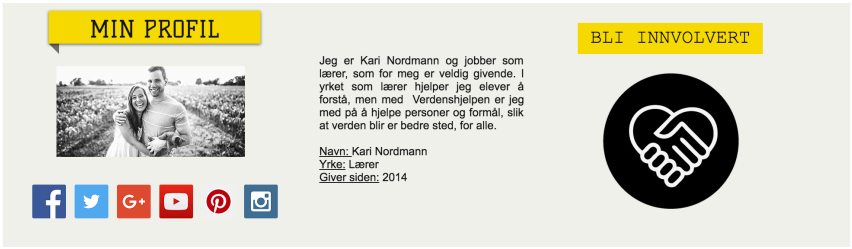
- Ønsker ikke å oppgi	
Q13: Hva var din totale donasjon i kroner i 2015? - Har ikke donert - 0-499 - 500-999 - 1000-1499 - 1500-1999 - 2000-2499 - 2500-2999 - 3000+ - Ønsker ikke å oppgi	
Q14: Jeg støtter veldedighetsprosjekter på grunn av egen kunnskap om veldedighetsprosjekter. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Hibbert, Sally., Andrew Smith., Andrea Davies., and Fiona Ireland. 2007. *Guilt Appeals: Persuasion Knowledge and Charitable Giving.* Psychology & Marketing. Vol. 24(8). 723- 742. Charities Aid Foundation. 2013. *Why We Give.*
Q15: Jeg støtter veldedighetsprosjekter på grunn av mediedekningen. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q16: Jeg støtter veldedighetsprosjekter på grunn av sympati for ofrene/de som lider. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Knowles, R. Simon., Melissa K. Hyde. & Katherine M. White. 2012. *Predictors of Young People's Charitable Intentions to Donate Money: Extended Theory of Planned Behavior Perspective.* Journal of Applied Social Psychology.
Q17: Jeg støtter veldedighetsprosjekter på grunn av påvirkning fra personlige bekjentskaper. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	
Q18: Jeg støtter veldedighetsprosjekter på grunn av min politiske oppfatning - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig	

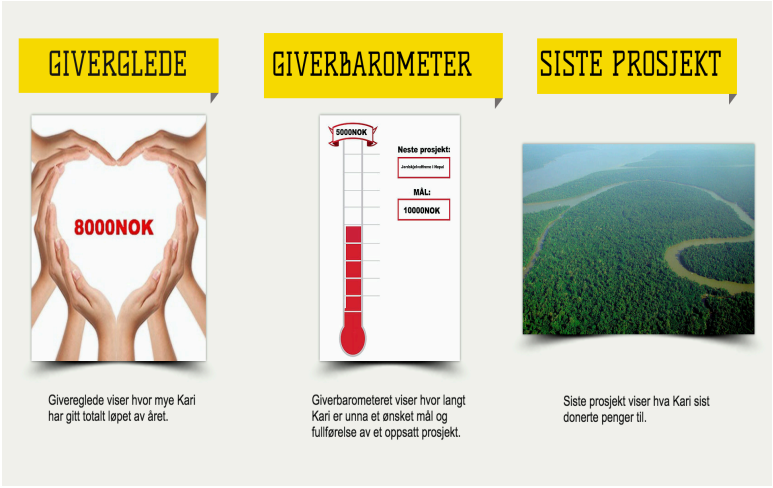
- Enig - Veldig enig	
Q19: Jeg støtter veldedighetsprosjekter på grunn av min religiøse tro. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Charities Aid Foundation. 2013. *Why We Give.*
Q20: Jeg støtter veldedighetsprosjekter på grunn av personlige opplevelser(besøkt landet, opplevd fattigdom o.l. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Charities Aid Foundation. 2013. *Why We Give.*
Q21: Når du spiller en form for spill (online-, videospill-, brettspill o.l.), hva er viktigst for deg? (Velg de to viktigste faktorene og de to minst viktige faktorene) - Skaffe seg materielle, ting, poeng og penger - Stige i nivå - Alltid vinne - Bli kjent med andre spillere/være sosial - Kommunisere med andre mennesker - Samarbeide og jobbe i lag - Konkurrere med andre mennesker - Å irritere og ødelegge for andre mennesker - Spille og oppnå noe alene - Utforske spillet - Gjøre noe helt annerledes enn de andre som spiller - Lage egne regler	Bartle, Richard. 1996. *Hearts, clubs, diamonds, spades: Players who suit MUDs.* Journal of Multi-User Dimension (MUD) Research. Motivations of Play in MMORPGs (Nick Yee) http://www.nickyee.com/daedalus/motivations.pdf Motivations of Play in MMORP (questions gathered from page 4-5 + 42-46)
Q22: Jeg har stor sympati for fattige mennesker. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Charities Aid Foundation. 2013. *Why We Give.* Knowles, R. Simon., Melissa K. Hyde. & Katherine M. White. 2012. *Predictors of Young People's Charitable Intentions to Donate Money: Extended Theory of Planned Behavior Perspective.* Journal of Applied Social Psychology.

Q23: Det er min plikt å hjelpe mennesker som har betydelig dårligere levekår enn meg. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Charities Aid Foundation. 2013. *Why We Give.* Cunningham, J. Barton. & Joe Lischeron. 1991. *Defining Entrepreneurship.* Journal of Small Business Management. Vol. 29, Issue 1, p 45-61.
Q24: Alle burde forsøke å hjelpe mennesker som har betydelig mindre velstand enn seg selv. - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Charities Aid Foundation. 2013. *Why We Give.* Knowles, R. Simon., Melissa K. Hyde. & Katherine M. White. 2012. *Predictors of Young People's Charitable Intentions to Donate Money: Extended Theory of Planned Behavior Perspective.* Journal of Applied Social Psychology.
Q25: Jeg tenker negativt om mennesker som har mulig til å hjelpe andre, men ikke gjør det - Veldig uenig - Uenig - Litt Uenig - Hverken uenig eller enig - Litt enig - Enig - Veldig enig	Knowles, R. Simon., Melissa K. Hyde. & Katherine M. White. 2012. *Predictors of Young People's Charitable Intentions to Donate Money: Extended Theory of Planned Behavior Perspective.* Journal of Applied Social Psychology.
Q26: Sammenlignet med i fjor, vil du at din husstands samlede økonomi (du eller flere) er verre, bedre eller uendret. - Verre - Bedre - Uendret	Tns-Gallup 2016
Q27: Om et år, tror du din husstands økonomi vil bli verre, bedre eller forbli uendret? - Verre - Bedre - Uendret	Tns-Gallup 2016
Q28: Sammenlignet med i fjor, vil du si at den økonomiske situasjonen i Norge er verre, bedre eller uendret? - Verre - Bedre - Uendret	Tns-Gallup 2016
Q29: Om et år, tror du den økonomiske situasjonen i Norge vil bli verre, bedre eller forbli uendret? - Verre - Bedre - Uendret	Tns-Gallup 2016
Q30: Tror du, per dags dato, er et godt tidspunkt for den norske populasjonen å kjøre store innkjøp (hvitevarer, elektronikk o.l.)? - Dårlig tidspunkt - Godt tidspunkt	Tns-Gallup 2016

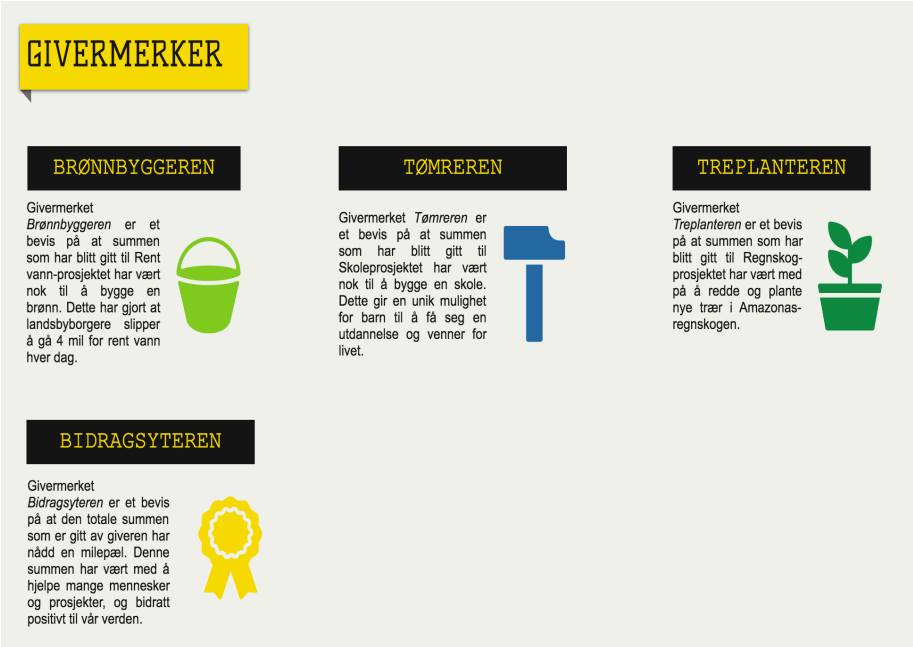
- Jeg vet ikke	
Q31: Alder?	
Q32: Kjønn? - Mann - Kvinne	
Q33: Hva er din høyeste fullførte utdannelsesgrad? - Grunnskole - Videregående skole - Høyskole/universitet (årstudim eller bachlorgrad) - Høyskole/universitet (mastergrad eller høyere)	
Q34: Hva er din bruttoinntekt (lønn før skatt, uten studielån)?	

Appendix 2: Outputs from charity platform with gamification – My profile





Appendix 3: Outputs from charity platform with gamification - Badges



Appendix 4: Outputs from charity platform with gamification – My Community

Appendix 5: Preliminary Thesis Report

(see next pages)

ID: 0929361

ID: 0979908

Preliminary Thesis Report

GRA 19003

How Gamification changes the rules of the game

- In a charity context

Hand-in date:

15.01.2016

Campus:

BI Oslo

Programme:

Master of Science in Strategic Marketing Management

Supervisor:

Line Lervik-Olsen

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1.0 Introduction

Living in one of the richest countries in the world, we both feel obliged to give some of our wealth to people that is struggling in other, less wealthy parts of the world. The easy way out, to get a better conscience, is to give to charity, preferable a monthly amount that is withdrawn from our account so we do not need to think about it anymore. The way many people are distancing themselves from their charitable act, got us wonder. What if people could give to charity and simultaneously become engaged by doing so? This would arguably create an increased awareness towards philanthropic work. What if we could use gamification, a concept that uses game elements to changes consumer behavior and engagement, in order to increase donors engagement? This is exactly what we will try to study in this master thesis. We are both marketing management students, and share an interest in how marketing tools can change behavior of both customer and employees. Growing up in the 90s, as a Generation Y, and always having access to games, Internet and a generally highly technological day-to-day life, has been a big part of our life when performing all sorts of tasks. Statistics shows that online giving grew by 13.5% in 2013 (*National Philanthropic Trust*), which point out this high technological trend also applies for charity. Therefore, introducing techniques used in games in a non- game context is something we truly believe will have a positive effect on the important field of charity.

1.1 What is gamification

Over the last 15 years the concept gamification has become a major research of interests in the business and marketing sectors, and evidently there is an increase of companies in different sectors implementing the phenomenon, such as Allied Global Holding Inc. (financial service), Deloitte (consulting), Samsung (consumer market) and LinkedIn (social media), only to mention a few. The simple form of gamification has been around in several of forms as long as there have been people on the planet (contests, labor, ranking in the army etc.). In recent years, more academic journals and periodicals are discussing gamification, and a growth of definitions has occurred. One of the most accepted definitions is offered by *Deterding et al (2011)*. He defines gamification as the use of game design elements in a non-game context, where the aim is to alter a certain behavior. In this setting, *game design* is the combination of tools that aim to create an

interaction and the game play for its players. Popular tools used in gamification are rules, points, goals, scoreboards (leaderboards), badges and motivational-attributes. A more detailed explanation of the different tools and attributes will be presented at a latter stage. Gamification can be defined as a service innovation, since it has changed how people get engaged and motivated by doing same tasks in a new design. A *non-game context* is what separates gamification from the standard perception of games, such as computer games, video -games and sports. In general, gamification uses many of the similar elements as games, and use it everywhere, except in games.

Gamification has also become a subject of interest for businesses. In 2014, *Research and Markets* stated that the total market value of Gamification was $980,000, which was an increase of 88% compared to 2013, and just the beginning of something more than a simple hype. The same research outlook, estimated the total market value of gamification in 2015 to be a $1.707 billion industry, and forecasted an increase up to approximately $ 10 billion in 2020. In 2014, Bloomberg estimated that gamification would become a $ 5.5 billion market in 2018. These outlooks are evidence on how highly the market ranks the evolvement in gamification. Moreover, *Gartner Enterprise* states that over 50 percentages of organizations managing innovation processes will gamify some parts of their business by 2015 *(Gartner, 2011)*.

1.2 Positioning and research gap

Bearing in mind that gamification as an academic research area is of relatively new origin, with most research being conducted over the last four years (*Hamari et al, 2014)*, it exist some critical gap that needs to be investigated and analyzed. Previous research tend to justify the usage of gamification by arguing that people are more productive when having fun, and that most people tend to have fun when they participate in a game of sort *(Deterding, 2011)*. This has led to an investigation on the usage of gamification as an educational tool (*Barata et al, 2015*). Playing with people's motivational level has also led to research on how organizations can implement gamification tools in order to increase motivation and thus create higher productivity among their employees (*Cherry, 2015.,* and *Farzan et al, 2008)*. Furthermore, gamification has also been investigated in areas like marketing and advertising, with the focus on how to get people more attached

and engaged in the a certain product or activity (*Bittner et al, 2014., Terlutter et al, 2013)*. Our paper takes a similar approach as we aim to increase engagement and attachment from people giving to charity. Meaning that our paper position itself in a non- profitable business organization. However, we argue throughout the paper that charity is a field touching people on a more personal level, and therefore differ from the previous use of gamification in other businesses. Charity is also a field that has not gained much attention in academic journals, despite its economic size (*Charities Aid Foundation, 2013).*

In contradiction to many other gamification studies that only uses gamification tools like points, leaderboards and badges (e.g. *Hamari et al, 2014., Bittner et al, 2014., Barata et al, 2015)*, our study argues for the implementation of more complex gamification tools to create more engagement from the users' (Kapp, Linkedin, 2015). The argument is also supported by the game designer Margaret Robertson, who heavily criticizes the usage of point, badges and leaderboards, stating that this approach is like *"taking the thing that is least essential to games and representing it as the core of the experience" (Seaborn et al, 2015).*

1.3 Research question

In our study, *Personal Values, Knowledge of Cause,* and *Personal Experience* (*Charities Aid Foundation, 2013*) will be central drivers (independent variables). *Type of Player* (*Bartle, 1996*) and *Consumer confidence* will work as moderators in this research, to test if other variables can affect the relationship. *Intention to give to charity,* will as well as a dependent variable, work as an unaided measurement. We will measure this variable with a pre- questionnaire. The unaided measurement will work as an indicator on what the donors intention to give to charity is. In this study, we will test the effect gamification has on charity, and a *gamified platform* will therefore work as a direct effect on donors intention to give money to charity. In this study, a pre- and post- questionnaire and an experiment will be conducted to answer the following research question:

To what extent do donors personal values, knowledge of cause and personal experience affects the intention to give money to charity, and how will type of player and consumer confidence affect this relationship? Which effect will type of platform have on donors intention to give money to charity?

During this study, we want to test the drivers' relationship towards the intention to give money to charity, as well as to see if others factors can moderate the relationship. Therefore our hypotheses are constructed to obtain as much knowledge possible about these relationships.

1.4 Purpose and contribution

With the background of gamification, and its outlook for the next five years, estimated to be a $10 billion industry in 2020 (*Research and Markets, 2015*), gamification will become an important tool to engage and change user behavior. Our study intent to investigate the powerfulness of gamification, in a new and unknown setting. The study will provide both theoretical and managerial contributions. Gamification is still a new field in a business setting, which needs more research and evidence toward its effect. We will look on how a gamified charity platform can engage donors, which can create more commitment towards the charity. Charity can be seen as a forgotten industry, compared to their size. There are around 10 million Non-profit organizations (*OnGood, 2015*) in the world, and 1.4 billion people donate money to non-governmental organizations (NGO's) (*Charities Aid Foundation, 2013*). Furthermore, according to a research conducted by *Abila (2014)*, *Generation Y* is the generation that donates the least money on an individual basis. The same research also mentions that organizations lose 57% of donors each year. The research from Abila confirm the importance to change the way people do donations, and that the *Generation Y,* which have been growing up with game elements, need to be more engaged/motivated to be committed to the charity.

These statistics confirm that research on consumer engagement in a big industry as charity is necessary, and new ways to do charity is fundamental. By conducting this research a new way of using gamification can be explored, and help others to explore new ways of using this emerging tool. This study can also be an contribution on evidence of gamification's power to increase consumer engagement, as well as a contribution to a different and creative way to reaching out to consumers.

In the following section a theoretical overview about gamification in the light of previous literature will be presented, where existing literature and theories will be discussed. Psychological aspects of gamification, with a special focus on motivation and human behavior will support our beliefs surrounding the use of gamification in charity. Furthermore, our theoretical framework will be presented, as well as a method on how we will gather and analyze our data. In the end, a short conclusion where we present the contributions, as well as a plan on further work.

2.0 Literature review

Game developer Nick Pelling first introduced gamification in 2003 *(Werbach & Hunter, 2012)*. However, it did not get any major attention until the second half of 2010 *(Deterding et al, 2011, Hamari et al, 2014)*. This paper will use the definition provided by *Deterding et al (2011),* stating that gamification is the use of game design elements in a non-game context. This definition provided a clear separation between games, as we know them, and gamification. This separation is fundamental in understanding gamification. Further, this paper will add to the definition that gamification implement *fun* in the things one must do, because we believe that people that generally enjoy what they do automatically improves their performance.

The most used game elements in relevant literature are points, leaderboards and badges (hereafter PBL) *(Hamari et al, 2014)*. Points aims to motivate users by displaying their ongoing progress. Leaderboard alter competition by openly comparing users with each other's. Badges motivates user by giving them a visual form of feedback. There has been provided empirical evidence of a positive effect towards steering behavior with the use of these game elements. *Conaway (2014)* argued that gamification used properly could increase customer loyalty, sales and increase number of visits to organizations web sites. Other researchers (*Barata et al, 2013,* and *Landers & Callan 2011*) found that gamification can increase motivation to students, by making the learning environment more fun, engaging and competitive. Although they found evidence on the effect of gamification, one could argue that they do not provide evidence on what specifically motivates the targeted audience *(Liyakasa, 2013)*. *Farzan et al. (2008)* have found flaws in the effect of gamification and its elements, with decreasing effect after a while.

Domínguez et al. (2013) found that gamification increased the scores on practical assignments, overall score for students and higher initial motivation, but a decreased in the score on written assignments and class activities. The reviewed articles are evidence that gamification is a complex tool to change consumer behavior, and need more research on their tools and effect.

Jumping into one specific gamification technique, as badges, without investigation motivational factors on the end users, often leads to poor game designs *(Gartner, 2012, and Liyakasa, 2013)*. That is, people are motivated by different factors, while some improve by competing openly against friends and co-workers, others get motivated by proving something for themselves. The fact that people are motivated differently will be a red rope throughout our paper. We will also argue in support of Karl Kapp, Professor at Bloomsburg University, who emphasize on more complex forms of game elements, namely; *story, feedback* and *visible form of mastery (Linkedin, 2015)*. Story is the ongoing journey that the user must encounter during the whole gamified experience. Feedback is the continuous form of keeping the user up to date with the ongoing progress. Visible form of mastery is the personal feeling the user get of succeeding. All of which are techniques to alter long- term engagement, and in turn create a stronger commitment.

The model developed in this study contains the variable *type of platform* with direct effect on *Intention to give money to charity*. This variable is the most important variable in our model, as it aims to show donors intention to give money to charity differs when being exposed to a gamified charity platform versus a standard charity platform. Without this variable, the research question cannot be answered. Therefore, a hypothesis is developed aiming to investigate the effect of gamification in charity.

H1:
A gamified platform will have a significant positive effect on intention to give to charity

Other hypothesis developed in this study will investigate behavioral outcomes the drivers have towards the intention to give money to charity. The predictions will be based on findings from previous literature and our own assumptions.

Two of the most famous success stories on gamification, are Nike+ and LinkedIn. One of their key success factor is the use of a more complex set of game elements, such as collaboration, community, competition, and goals, not only the PBL. This has created a community of highly committed users, as well as one of the most popular training sites and professional social media site *(nikeplus.com & enterprise-gamification.com)*. *Karl Kapp* also emphasize that PBL are not fully compelling to a game compared to mastery, competition and story. These game elements allow players to control the environment while being entertained simultaneously, and not only pursuing seemingly mindless points and badges. One of the pioneers within the field of gamification and the founder of *Bunchball.com*, *Rajat Paharia*, also emphasize that gamification is a more complex tool that often exceed the somewhat simple introduction of PBL. In his book *Loyalty 3.0* (2013) he focus on ten mechanisms of gamification where mastery, progress and social interaction are key motivational factors for most of them.

Having conducted an examination of existing literature, it is clear that no other research have investigated which effects gamification can have towards people giving to charity. Knowing that the field of gamification is relatively new, and therefore of an undeveloped art, this is not surprising. However, in a broad sense, one could easily argue that our study share similarities with the vast specter of existing literature that focuses on motivation, engagement and behavior *(e.g. Ryan & Deci, 2000, and Ajzen, 1991)*. This is aspects that all literature on gamification must encounter in someway or another. Our approach is to use acceptable psychological theories as a frame on how gamification potentially can steer certain behavior.

The next paragraphs discuss the usage of PBL and how our experiments will focus on slightly more complex forms of game elements. *Anderson et al (2013)* defines badges as summary of a user's key accomplishments, meaning that they function as a symbol on how well an individual is progressing in a certain activity. Their article found evidence that badges can be used as an incentive tool in order

to steer behavior in a given direction. Interestingly their framework showed that participant increased their activity when they were close to getting a new badge. This is a conclusive discovery for gamification literature, but arguably of a quite primitive notion. In our opinion, badges do lead to certain behavior, but it possesses some clear limitations. It assumes that users hold knowledge on the connotation of the different badges. Further, it only provides short-term benefits for the given user. Meaning that a user obtains a new badge, which might be very satisfying, but then the interaction ends and the user must yet again strive towards a new badge.

A real time failure of the usage of badges was done by Zappos, which did not provided any communication surrounding the meaning of it use, and hence the customer was not motivated to collect them *(iMedia)*. *Anderson et al (2013)* used a question-answering site called Stack Overflow to monitor the effect of badges. Similarly, *Hamari (2015)* investigated badges effect in a network called Sharetribs (which share similarities with eBay). Both articles managed to capture an increase in user interaction by implementing a set of badges, which shows that when implemented correctly, it can be an effective gamification tool. The criticism of badges are more a statement that badges fits best when the user interaction is only minor acquired, as it arguable is on the webpages used in the articles. Thus, badges, at least when investigated in a single manner, will arguably not provide enough user engagement in a field as charity, whereas users are acquired a large set of empathy. Strengthening our assumptions, *Hakulinen et al (2013)* found on the one hand that badges increased students score in a specific test, but on the other hand found that it was only a small group that were truly motivated to collect the given badges.

One of the drivers for our dependent variable, *intention to give charity*, is user's *existing knowledge of charity*. This variable share similarity with gamification in education. *Barata et al (2015)* conducted an experiment on how to increase students' progression by using different gamification mechanisms. Interestingly, *Barata et al (2015)* categorized a group of students into four different types, pending on their performance (achievers, disheartened, underachievers and late awakeners). This is something we will adopt in our study, but divide users as done by *Bartle (1996)*. In order to achieve an increase in learning progression, *Barata*

et al (2015) created a leaderboard where students could follow their classmates' progression and compare it to themselves. A leaderboard could increase a user's achievements by playing on intrinsic motivation, meaning that the human nature seeks challenges and novelties *(Ryan & Deci, 2000)*. Their study also included badges and points. However, it could be argued that the usage of leaderboard, badges or point as the only game element in both gamified learning and gamified charity can cause a negative outcome. For instance, some people react conflictingly when being compared to others in a visible manner, which may cause some conflict with only using a leaderboard. Disneyland witnessed a backfire in their implementation of a leaderboard among their employees, because of an extreme competitive environment that led to both performance and satisfaction dropping *(Los Angeles Times, 2011)*.

Barata et al (2015) conducted two experiments lasting for two years. In the second year they received more positive feedback from the students being exposed to the gamified course, because they manage to better adapt the game elements in alignment with students needs. Our study can take an important learning from their article. Namely their ability to create a meaningful linkage between PBL, which is proven through their post-satisfaction questionnaire, where all of the four player types provided positive feedback towards the structure of the gamified course. This proves *Barata et al's (2015)* manage to motivate student and make them long- term committed, and not only short-term motivated for the chance of gaining a badge.

Researchers seem to be divided on whether gamification provides an increased learning effect in a classroom *(Christy & Fox, 2014)*. One the one hand, the argument is that gamification in classrooms strengthen learning effects by increasing engagement and motivation, which further gets strengthen by the social learning environment that gamification yields *(Muntean, 2011)*. On the other hand, some studies have found evidence that gamification actually decrease class participation, which in turn have a negative effect on exam results *(Domìnguez et al, 2013, and de-Marcos et al, 2014)*. One could argue that it exist many variables affecting the outcome of gamification in a learning environment. We believe that prior knowledge on a specific topic, here charity, is an important variable that needs to be detected before making any kind of assumption one way or another. In

support of our prediction, *Mallinckrodt & Mizerski (2007)* ran an experiment where they found significant evidence that older children with high persuasion knowledge (which in this case is the same as prior knowledge) were most likely to choose the given brand. Our experiment will consist of a variable highlighting users prior knowledge to a specific cause. This is obtainable through a questionnaire, and will clearly indicate how knowledge affect the intention to give, and moreover how users being exposed to a gamified versus non-gamified platform differ in their level of intention to give money to charity. Therefore, previous literature on gamification in the classroom is of great importance because students with different knowledge react differently to implemented game elements. Our study aims to investigate whether prior knowledge either has a positive or negative effect towards a gamified platform. Hence, we construct an hypothesis as followed:

H2:
A user with high prior knowledge on a specific cause will have a significantly higher intention to give to charity.

Charity contradicts itself from standard advertisement as it *"sells"* the possibility to help others, and thereby one sacrifice something instead of gaining a product or a service. It does however share a complementary goal of getting people to spend their money in a specific way. In charity specifically, this goal depends highly on personal experience. That is if a person perceives the cause to be in alignment with prior experience towards similar charity, organizations or life experiences. Previous literature on gamification in marketing differs from gamification in charity due to the emotional aspect of charity. However, examining previous literature on gamification in marketing provides some valuable insight on which factors are being used to alter motivation with the focus on personal experience.

Terlutter et al (2013) analyze gamification in advertising and designed a theoretical framework. Their variables explained behavioral outcomes toward a brand when users play a game, and simultaneously were exposed to advertising content. Their framework contains characteristics *(X),* psychological responses, and behavior outcome *(Y)*, all of which being measured towards the brand and the game. Of interest, *Terlutter et al (2013)* uses individual - and social - factors as a

moderating effect on *X* and *Y*. Some of the individual factors is relevant for our questionnaire and the linkage to the *X* variable *personal experience*. These factors are involvement with the brand (charity organization), level of maturity (age), perceived congruity with ideal self and past experience. Testing these factors allows us to gain knowledge on personal experience of our respondents. We believe that respondents personal experience will have a positive effect on our unaided measurement, *Intention to give to charity*. However, respondents that possess a high experience with charity and are mature will not increase their intention to give to charity after being exposed to a gamified platform. The argument is that experienced people tend to be more stubborn, and hence it may be difficult to change their intention towards something they have a strong prior experience with. Moreover, mature people have a better ability of recognizing persuasive content, and thus become more skeptical towards it *(Wright et al, 2005)*. Gamification aims to increase engagement, but we believe that respondents with strong personal experience already are engaged, either positive or negative, towards charity. Hence, we formulate the following hypothesis to answer intentions before exposed to a gamified platform:

H3:
A user with a strong personal experience towards charity will have significantly higher intention in giving money to charity

A non- profitable organization will allegedly not manage to create a long-term relationship with its users without knowing factors that make the users committed to their product or service. Our use of the term personal values are gathered from *Cunningham & Lischeron (1991)* who explained it as an individual's honesty, duty, responsibility, and ethical behavior. However, we do not focus on honesty, as this is hard to detect through a survey. Therefore, our research must detect these values through the pre- questionnaire and in alignment with the dependent variable. A survey conducted by Charities Aid Foundation in 2013 found that the respondents (N=>700) gave personal values a score of 97%, when given the question "*how strongly would you say the following has influenced your desire to give to charity?"* One could argue that personal values may conflict with social demonstrance, which is a person's struggle between pursuing intrinsic (e.g. self expression) - or extrinsic (social status) - values *(Fischer et al, 2010)*. This

argument is drawn from the difficulty in assessing whether people give to charity due to personal values or based on reference people's acts and beliefs. The reality is probably a mix of both factors. However, due to people's reluctance to admit how much others influence their own choices, or lack of knowledge towards this phenomenon, we predict that social demonstrance will be a problematic variable to analyze. In addition, we are convinced that people that often base their actions on social demonstrance will not obtain a strong intention in giving charity. This is because extrinsic motivation is believed to only burst behavior in short- terms.

Our predictions are in some fashion supported by *Ryan & Deci (2000)*. They explain that a specific content often must be evaluated and brought into a context that fully fits with a person's assimilation. They named this extrinsic motivation as an *integrated regulation*. Although their article explains three other forms for extrinsic motivation, we believe that integrated regulation is most interesting, because it is more internally based, and therefore closes to personal values. Moreover, gamification is strongly depended on personal way of being motivated, e.g. with different player types. Meaning that social demonstrance should have a lower influence on a person's intention to give charity. Drawn from the discussion above, a hypothesis is formulated on the surroundings of our predictions on how personal values affect the intention on giving charity. We underline that personal values consist of duty, responsibility, and ethical behavior, which will be detected from a pre- questionnaire.

H4:
Personal values have significant positive effect on intention to give money to charity.

Building on the statement that people are motivated differently, the approach of *Bartle (1996)* in dividing players based on their playing style is most appreciated, and ease the investigation on how gamification motivates people differently. *Bartle (1996)* is one of the most referenced authors in the use of player types *(Hamari et al, 2014)*. He separates between *achievers*, *explorers*, *socializers*, and *killers*. Achievers are driven by improving their points, and further rising in levels. Explorers are mainly interested in how things works, and sees points and progress only as a way of entering the next phase. Socializers are interested in

others opinions, and the motivation for establishing lasting relationships. Killers prefer action, and one could argue that they are most motivated by the possibility of imposing others.

Motivation is the core aspect in getting people to act in a specific way. In their famous paper from 2000, *Ryan & Deci* explains the concept of their self-determination theory. The paper explains two kinds of motivation, intrinsic and extrinsic. Intrinsic motivation involves something you want to do, while extrinsic is activities you have to do. The difference lies in inside versus outside motivational factors. In gamification, playing your favorite sport could be an intrinsic motivation due to the fun in it, and an extrinsic motivation could be going to work for the sake of the money. We believe that to truly understand gamification, an understanding on whether intrinsic or extrinsic is the core motivational factor for a person is fundamental. This core aspect is somewhat lacking in previous literature. *Hamari et al (2014)* conducted a review on empirical studies on gamification to answer the question on whether *"gamification works"*, but as a limitation they admittedly stated the lack of investigating studies regarding intrinsic motivation. Our study will consist of a moderator that combines *Bartle's (1996)* player types and motivational theory from *Ryan & Deci (2000)*. The moderator aims to investigate the possible relationship on how different player types have different intention to give money to charity.

Moderator hypothesis 1:
Different player types will have different intention to give money to charity

Interestingly *Ryan & Connell (1989)* discovered that students show less interest, value and effort toward an activity when being afflicted by extrinsic motivational factors. The explanation for this is most likely that people who are extrinsically motivated are not interested in the activity in the first place, and thus does not become committed. Linking this discovery to charity, it could be argued that extrinsic motivational factors cause a negative long- term commitment towards charitable behavior.

Moorman et al, (1992), defined commitment as the desire to maintain a valued relationship. Their findings found evidence that involvement in trust between *knowledge users* and *knowledge providers* (within and between organizations) do not directly contribute to users' commitment. This contradicts their theory, stating that involvement would enhance commitment. In other research within the business perspective, commitment have a more positive effect, where it is showed that customer commitment can lead to positive customer behavior including customer retention and share of wallet (*Menon & O'Connor 2007*). *Bansal et al*, *(2004)* researched on the commitment customer have to service providers, and their level to switch. They build commitment around three components; a*ttitudinal, instrumental and temporal components*. In their research, they found evidence that consumers' commitment affect their intention to switch and their relationship to the firm, which also can be supported by *Wong & Sohal (2002)*.

Most of the reviewed literature about customer commitment is positive regarding creating relationship towards the organizations. These findings support our belief that commitment is an underlying factor to create a long term relationship and positive consumer behavior, which we strongly believe is important to create a sustainable organization. *Fournier et al (1998)* also supported the importance of commitment and its effect on relationship, in Harvard Business Journal. They wrote that customer commitment is an important part for marketers when they will understand and save customer relationship. In charity, as a NGO, the relationship is different. *Fournier et al (1998)* stated that consumers view companies as enemies, not an ally. NGO's is fighting the same cause as the donors, to help people. Still, to continue to gain donors, NGO's need to have an understanding of what creates commitment, and what measures that can be implemented to increase the number of donors.

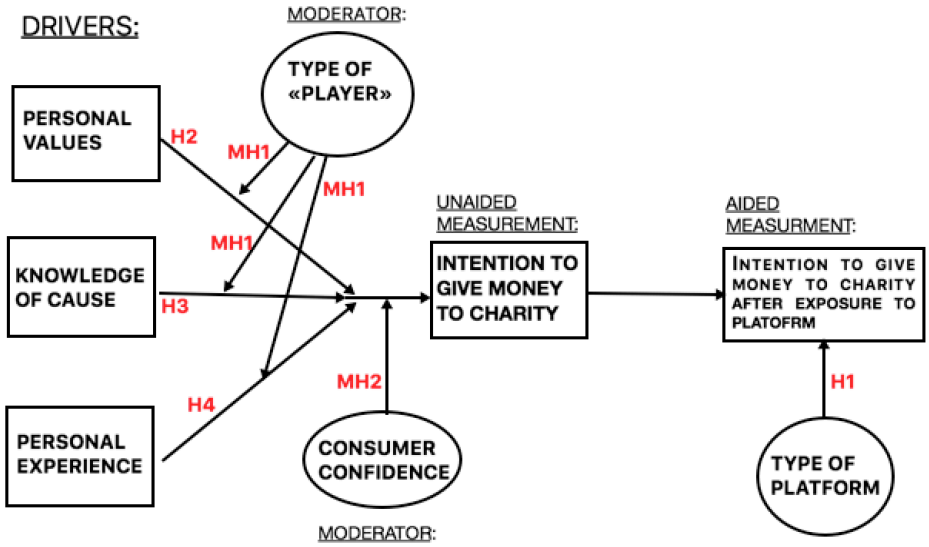
Our conceptual framework consists of three different conditions, the type of player, the type of platform users are exposed to, either gamified or non-gamified, and the consumer confidence. We predict a moderating effect on the variable consumer confident, although the effect is unknown at this stage. Our prediction has merged from historical patterns, where it is evidence towards people giving less to charity when they believe the economy will decline. For instance, National Australian Bank (NAB) constructed a charitable giving index

where it was evidence that negative trends on economic growth and rising unemployment where factors leading to lower charitable behavior. Our model looks at the variable consumer confidence, consisting of consumers' general beliefs of the economy. Based on current rates on these variables it is obtainable to make assumptions on the possible strength or weakness towards the intention to give charity. Therefore, we construct the following moderator hypothesis:

Moderator hypothesis 2:
Consumer confidence will affect donors intention to give money to charity

Research model
To answer our research question, testing our hypothesis and taking the literature review into consideration, we have developed the following research model:

FIGURE 1
THEORETICAL FRAMEWORK OF GAMIFICATIONS INFLEUNCE ON CHARTIABLE BEHAVIOR



The background of using the three independent variables is the survey conducted by *Charities Aid Foundation,* about why people give to charity. Our first moderating variable in the pre-questionnaire will be taken from *Bartle's (1996)* article on four different player-behavior. *Consumer confidence,* donors personal beliefs about the economy will also be a moderating effect. After the analysis to conclude donors' intention to give money to charity (unaided measurement), the sample will be part of an experiment, where they are divided into two groups, One group is exposed to a gamified charity platform, while the other groups is exposed to a regular charity platform. After the experiment, the sample will be a part of

post-questionnaire, where we will get the results on which effect a gamified platform have on intention to give to charity.

3.0 Methodology

Our causal research design will try to answer the research question:
To what extent do donors personal values, knowledge of cause and personal experience affect the intention to give money to charity, and how will type of player and consumer confidence affect this relationship? Which effect will type of platform have on donors' intention to give money to charity?

Our sample (N=120) will be drawn realistically from the population of Norway. Consisting of people aging between 18- 70 and approximately an equal amount of men and women. The data collection will be conducted through a procedure, which include a pre-questionnaire, an experiment and post-questionnaire. A pre-questionnaire will detect three different drivers towards *intention to give money to charity*, our unaided measurement. There will also be conducted questions to investigate if *type of player* and *consumer confidence* has a moderating effect on the relationship towards donors' intention. In the pre-questionnaire, questions formulated as different scenarios will be asked in order to categorize the four different player types. Different scenarios with four different solutions, will categorize the different player types. Structural Equation Model (SEM) in STATA will test the overall goodness of fit in the model. This tool will give us an understanding of the relationship and the explanations power the *drivers*, *player types* and *consumer confidence* has on the intention to give money.

In the experiment, half of the sample (N=60) will be exposed to the gamified charity platform, and the other half will be exposed to the regular charity platform. After an approximately 2 months exposure to the platforms, the participants will end their study by answering a post-questionnaire.

The data conducted in the pre- and post-questionnaire will then be analyzed by using an ANOVA in SPSS. This is done in order to analyze which affect the type of platforms had on donors intention to give money to charity. The questionnaires will be done using the survey tool Qualtrics, which will give analyzes and

summaries. A multiple regression analysis will be conducted after both questionnaires, to see the drivers and moderators effect on our unaided and aided measurement. Data on the participants will also be analyzed through STATA, by comparing beta coefficients and chi–square across the different platform groups. This will show how much our model manage to explain the variables and their relationship. SEM will be used to investigate the relationship to the drivers, moderated by using a gamified charity platform and consumer confidence.
In this causal research, we believe that the pre - and post questionnaire, as well as an experiment, are the best method to test the effect gamification has on charity.

For the purpose of our study, we plan to have a collaboration with Red Cross Norway or similar organizations. If we get a collaboration, our participants will be their members, where we aim to have a divided sample from the population. If it is not possible to have a collaboration, and create a real gamified charity platform, a fictive platform will be made. The participants will then be voluntary students from BI Norwegian Business School, because of the efficiency and the large range in demographics (from bachelor- to executive students).

4.0 Conclusion

Expected result
Considering the study's literature, it is support of the effect gamification can have on motivation, engagement, commitment and learning towards consumers. It is important to point out, if gamification is not properly carried out, with too few elements, or no connection to the cause, it can have smaller effect towards the consumers. In this study, we are aware of the mistakes that earlier researchers and organizations have done. We therefore believe that our study will have a positive effect on the intention to give money to charity. Charity is an important tool to create more equality and help needy persons in the world, but can be seen as a disengaging process. Gamification have been proven to create engagement, which we also believe it will do in this study. One exiting and unknown factors that will be important to the success of this study is that the participants/donors do not get a personal gain of giving to charity. Previous researches have used gamification to create personal gains, while this study tests on how gamification can create gains for others.

5.0 Managerial implications

Conducting a study aiming to improve the field of charity with the use of gamification, we believe the result will possess value for businesses. Managers should focus on donors level of engagement towards their charitable behavior. Today, donors give a monthly amount, while keeping themselves at a distant level, often not knowing anything about the cause they are supporting. One could argue that this is okay, because the organizations get their money anyway. However, focusing on increasing donors engagement will lead to more critical and knowledge seeking donors. We believe this is of huge managerial implications because it will lead to a more two- way collaboration between donors and the non-profitable organizations, which in turn should increase the quality of the charity. Better control over where the money goes to, letting the donors follow visual progress with a specific cause, and creating a common platform where donors can share stories and see others charitable actions, are all activities that will increase the quality of the charity. Hopefully, will a better charity engagement further lead to higher intention, and also more money given to charity.

Conclusion

The contribution drawn from this study shows a new way of combining a long lasting field of charity with a more or less new field called gamification. Investigating measures for getting donors more engaged and thus aiming to increase their intention to give to charity, have not previously been researched. Gamification is a proper tool in using elements used in games to get people more engaged through techniques that makes activities more fun. However, the results gather from this study might not be the most optimal due to the uncertainty over which game elements that are most effective in this study design. Therefore, we hope that our research will be an acceptable platform for further research on gamification in charity.

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