Can Gamification Increase Consumer Engagement? A Qualitative Approach on a Green Case

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Abstract. The present study aims to identify the potential benefits deriving from the introduction of gamification elements in the consumer shopping process, in order to engage consumers in a more ecologically conscious behavior. Interviews with lead consumers show that the gamification of the shopping process results in increment of the stated intention to participate in the shopping process as well as an increment in the stated intention to purchase and an increase in the price premium consumers are willing to pay for environmentally friendly products.

Keywords: Gamification, Consumer Engagement, Price Premium, In-Depth Interviews.

1 Introduction

During the past few years Gamification has received the attention of the industry (Gartner Inc., 2011) as well as the academia (Deterding et al., 2011; Lee & Hammer, 2011; Simõesa et al., 2012). The phenomenon of its penetration in the corporate marketing strategy and the way the practitioners have found it to elicit and enhance user engagement though, has not been adequately studied in the academic literature. In the case that we examine consumers in particular, gamification literature is virtually inexistent. In an ever-changing scenery of consumer consumption behaviors, the effect of sustainability has risen in various industry sectors. Suppliers and retailers of fast moving consumer goods focus their efforts on producing environmentally friendly products and in the latter years efforts are turning to collaboration on achieving the goal. Although the development of sustainable consumption patterns and practices has been discussed in the academic literature since the 60's (Packard, 1960), until the present time the selection of products is not heavily influenced by the environmental impact the products have, rather than by other factors such as price, convenience etc. (Gaspar & Antunes, 2011; Gadenne et al., 2011; Faiers, Cook, & Neame, 2007). That being the case, the question remains: How will the collaborative ecological efforts of the industry to reduce carbon emissions throughout the supply chain be extended to the consumer? More importantly can consumers endorse sustainable patterns of consumption and become green consumers via the employment of gamification in the

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shopping process. The aforementioned question is the motivation behind the present research. In the next section we provide an overview of the existing literature on Gamification and current research findings on the green consumer. The third section presents the methodology of the study and the fourth and fifth section present the findings and discussion of the results as well as the academic and managerial implications. The final sections refers to the limitations and directions for future research of the present study.

2 Literature Review

2.1 Gamification

In the academic literature gamification is starting to gain momentum and different research streams employ different definitions in relation to the point of view they examine it and its effects. Emphasizing on the overall goal of gamification from the service marketing perspective, Huotari & Hamari (2012) define gamification as "a process of enhancing a service with affordances for gameful experiences in order to support a user's overall value creation". Another definition comes from Deterding et al. (2011) who identify gamification as "… the use of design elements characteristic for games in a non-game context". That approach presents a more systemic view of the term, pointing out the process of decomposing games into building blocks and introducing them into areas that can benefit and didn't previously employ such techniques. A different view of gamification presented by Zichermann and Cunningham (2011) endorses gamification as a "process of game-thinking and game mechanics to engage users and solve problems". All aforementioned definintions have merit in the way they address gamification. However, at present time, a universally applicable definition of gamification is not extant. For the purposes of this research we extend the definition of Gamification presented by Zichermann as follows:

Gamification is the Process of game-thinking and game-mechanics to engage the consumer in the non-gaming context of shopping in order to drive engagement and enhance the process of behavioral shift.

2.2 Green Consumer and Shopping Behavior

Having focused on the consumer and the potential shift towards sustainable consumption practices via the employment of gamification, we proceed to examine the attributes that formulate the profile and behavioral patterns of the Green consumer. These attributes have been studied extensively in the literature both from the individual consumer perspective (Straughan & Roberts, 1999; Roberts & Bacon, 1997) as well as at an aggregate national level (Dunlap, Mertig, & E., 2000). Pertaining to the individual consumer perspective research in different industry sectors reveals that although environmental factors are considered at the point of purchase, they are not the sole or most important factors affecting consumer choice (Gaspar & Antunes, 2011; Gadenne et al., 2011; Faiers, Cook, & Neame, 2007). However,

Straughan & Roberts (1999) identified that the green consumer behavior is driven by the person's "…belief that individuals can play an important role in combating environmental destruction…", that is consistent with the findings of the stream of research that explores the psychological benefits that arise from the person's contribution to the ecological common good (Wiser, 1998; R. & M., 2006; Hartmann & Apaolaza-Ibáñez, 2012). The aforementioned stream of researchers portrays a consumer driven by internal motives on their choices where as the current practice in the FMCG sector is focused on incentivising the consumer with external redemable rewards via loyalty programs (Meyer-Waarden, 2008; Smith & Sparks, 2009). That type of incentives is found to have results under the premise that the loyalty program is ongoing, yet problems arise in its termination (Yi & Jeon, 2003; Leenheer et al., 2007; Meyer-Waarden & Benavent, 2009). The missing link in that perticular problem, caused by the short term effect of loyalty programs, could be addressed by the introduction of a mechanism that enhances the process and the incentive mechanisms that support psychological benefits in parallel to monetary external rewards, namely gamification.

2.3 Gamification as Means to an End

Various industry sectors have identified the potential for increment in consumer interactions and jumped on the gamification wagon for the ride. Retailers in India have identified it as an upcoming trend of social media marketing and their customer centric initiatives include gamification in their core process in order to "drive engagement and participation" (Archana, 2012). In Education, gamification has been found to have great potential to motivate students (Lee & Hammer, 2011; Simõesa, Díaz Redondob, & Fernández Vilasb, 2012). In the sustainability sector in particular, research conducted by Kuntz et al. (2012) resulted in the introduction of gamification in the sustainability awareness and efforts of individuals had positive outcome in saving energy, water and reducing gasoline use. As with the afforementioned sectors that have benefited from the introduction of gamification, we aim to examine the potential for benefit in the context of FMCG and the green consumer. The Fast Moving Consumer Goods sector comprises of businesses that offer products produced for frequent consumption as: Food and beverages, houshold goods, sports goods, personal care and cosmetics etc.

3 Qualitative Research

In order to gain insights into consumer reactions to the introduction of gamification in the shopping process in the FMCG sector, in-depth interviews with fifteen consumers were conducted (47% male). The focus of the in-depth interviews was twofold: First, to garner consumer perceptions on green consumption in the FMCG sector and second to identify potential benefits from the introduction of gamification. Questions were also asked in regards to the general shopping behavior and patterns of the individuals.

The method of consumer selection was based on Matthing, Kristensson, Gustafsson, & Parasuraman's (2006) typology of consumers. In this typology, authors divide consumers in 6 categories: leaders-explorers, pioneers, skeptics, paranoids and laggards, based on the characteristic of how innovative a person is; part of the characteristic of innovation is "..the tendency of people to look for different aspects of the reality" (Matthing et al, 2006). For the present research purposes only people who belong in the categories of leaders-explorers, pioneers and skeptics were selected for participation. The identification of lead consumers was performed via an offline questionnaire prior to the in-depth interviews.

Additionally, in order to determine the degree of ecological worldview and ecological conscious consumer behavior of the participants and further segment them, two additional offline questionnaires were administered. The first was the New Environmental Paradigm – NEP (Dunlap, Van Liere, Mertig, & Jones, 2000) and the second was the Ecological Conscious Consumer Behavior (Roberts, 1996). The latter in particular was utilized to measure the extent to which the respondents purchase goods / services that they believe have a "more positive" impact on the environment in relation to their counterpart alternatives. The consumers selected for the in-depth interviews were screened and assessed to have the lead consumer profile as well as various degrees of ecologically conscious consumer behavior (ECCB) and ecological worldview (NEP). The resulting sample (Figure 1) of lead consumers consisted of both male (47 %) and female (53 %) consumers. The age range of the sample was segmented into [18-24 at 33 %, 25-29 at 40 % and 30-45 at 27 %] and the group was further segmented based on their environment-conscious behavior into two segments (high ECCB 55.5 % and medium/low ECCB 44.5 %) in order to identify correlations of gamification application on various levels of the green consumer.

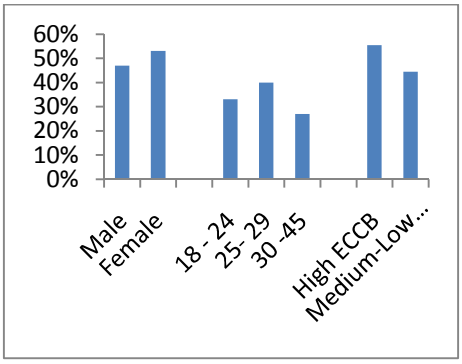

Fig. 1. Demographics of lead consumer sample

Although the number of the consumer sample consisted of fifteen consumers, with careful sampling and thorough collection technique, a small amount of in-depth interviews can result with data capable of addressing the research question (Holloway, 1997). The researchers continued to sample until there was no production of any new information or insights following the theoretical saturation general rule of qualitative research. In the present study theoretical saturation was deemed to be achieved and satisfactory for valid sampling after fifteen consumers. The present study is consistent with the suggested valid range of case sampling of more than ten cases (Eisenhardt, 1989). The information gathered during the interviews was content analyzed and coded by two independent coders into categories pertaining to the present research. A number of categories were decided upon ahead of time (e.g. Game Mechanics for incorporation, Shopping process) while other

categories were identified based on the lead consumer responses (e.g. Flow of gamified service). In the case of disagreement on the classification of any particular statement, the disagreements were resolved upon joint discussion.

4 In-Depth Interviews Results

The in-depth interviews results address three major categories: (a) the current and ecological shopping behavior (b) services to support the shopping process / ecologically conscious consumer behavior and (c) gamification insights on driving consumers in the common effort to endorse sustainable consumption. The in-depth interviews results follow:

4.1 Current and Ecological Shopping Behavior

The lead consumers selected for the in-depth interviews presented a near and above average environmental worldview as identified by the initial screening process and were further on divided into the consumers that presented high ecologically conscious consumer behavior and medium to low ecologically conscious consumer behavior (ECCB) in order to classify shopping behavior and insights respectively.

The lead consumers classified as high ECCB display higher tendencies to request and even search for information pertaining to the environment-friendly products / enterprises and factor the results to their product selection criteria. As a valuable insight, the majority of the consumers stated that when they are presented with eco-relevant product information they hold accountable the product on its claim and if found that it is valid (as perceived by their definition of validity) are willing to pay a 20 % price premium to purchase the product on average (reported up to 30 %). However, if they find the claims to be invalid and not substantial, this results in considering it as "green-washing" and the product is not eligible for purchase.

The lead consumers classified as medium-low ECCB display lower tendencies to search for eco-friendly products and factor that in their purchasing decision at a lower factor. However, they still consider it a factor. A valuable insight on the specific type of consumers is that the majority stated that although in the past they were not shopping ecologically, they start (at varying rate) to turn towards that as well. In this category, the acceptable price premium for environment-friendly products is 10 % on average (reported up to 25 %).

Product Ecological Friendliness Characteristics and Perceived Quality

The majority of consumers, when asked if they perceive an ecologically-friendly product to have inferior characteristics (such as taste for food, cleaning efficiency for detergents etc.) when compared and contrasted to another product (not claiming eco-friendliness) responded that they strongly believed it to be of equal if not higher quality. Respondents even claimed that "nowadays technology has evolved to such degree that products can be of quality and be eco-friendly at the same time". Additionally,

when presented with price differences amongst eco-friendly and regular products the respondents stated that they would have no problem paying a premium price to buy products that are eco-friendly. Specifically, 61 % of the total respondents are willing to pay up to 10 % premium price for the eco-friendly product, 26 % are willing to pay up to 25 % and finally 13 % are willing to pay up to 30 % (Figure 2), indicating that they value the ecological perspective of the products and understand that the investments required for a product to become eco-friendly are of a certain magnitude.

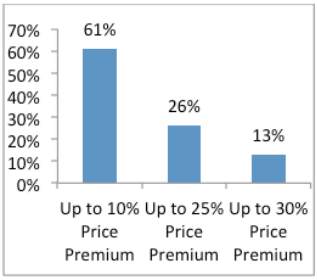

Fig. 2. Willingness to pay price premium for eco-friendly product

Ecological Friendliness Product Information Placement

The majority of the respondents could identify a number of product categories where they are loyal to specific brands. Lead consumers, identified as "able to select a product taking into consideration factors other than brand loyalty", were then presented with a three-step scenario relating to the product selection process in the respective categories. In that scenario they stated their process of thinking. The first step is that they observe a product having a label with a message claiming eco-friendliness and sustainability. Their response was that they are not convinced and they request additional information substantiating the claim at a 74% and "probably is environmental" at a 26 %. The second step requested input from the lead consumers on the information they would like to be presented with. From the total of the respondents 87% indicated that they would like to see some form of substantiation of the eco-friendly claim of the label and of those respondents 33% preferred data as facts where 53% preferred a visualization of the data / facts (the remaining did not state a clear selection). The final step was the option to have the aforementioned data on the shelf by the product price tag where 53% consider it positive and stated that they would read it and consider the environmental factor higher and 20% consider it negative (described as green-washing). The remaining did not state a clear selection. From the second step on, the majority (74%) of the respondents described the eco-friendly product claim to be of substance. A valuable insight from the scenario was that lead consumers identified and pointed out the necessity for standardization of ecological measures and claims. In the process of the interviews, all respondents stated that they lack the information pertaining to the ecological footprint each and all products have. Additionally, as a measure to prevent themselves from mal-practices the majority pointed out the need for some form of standardization of the measuring and reporting of the ecological footprint of the products within a retail store. This unified measure should be obligatory, span across all product categories and address the entirety of the product lifecycle from creation to disposal. "If it's (the measure) not the same how can I compare them? And If I can't compare them how do I know which is better?" and "Products have nutritional information on them and I see which is closer to my needs. That is something I want for the environment as well" are responses that illustrate the perception. Furthermore, a number of consumers presented the energy class of the

electrical appliances as a form of elaboration on the necessity of standardization in all sectors.

4.2 Services to Support the Shopping Process / Ecologically Conscious Consumer Behaviour

The majority of the lead consumers do not regularly use online technologies to support their shopping needs with exceptions being the occasional use of Internet for product-related information search and notes on a smartphone about the products for purchasing. The services identified by consumers related to the environmental profile of products and to the general shopping mission are presented in the Table 1:

Table 1. Services related to the ecological profile of products and shopping process

Service Supporting…	Service features and consumer endorsement
1. Identification of shopping needs	Monitor stock levels of household products, maintain historic of product needs, calculate consumption volumes / product (Stated by 46% of the consumer sample)
2. Shopping needs recommendation	Optimization of the product purchase selection based on budget and cost scenarios (Stated by 60% of the consumer sample)
3. Product shopping planning	Plan upcoming product purchases, retrieval of current product prices (Stated by 67% of the consumer sample)
4. Shopping list	Online / shared by household members. Available in both web and mobile versions. Consumer "Assignment to shop specific products" capabilities (Stated by 87% of the consumer sample)
5. Retail store selection	Retrieval and Comparison of product price / availability between proposed retail stores (Stated by 46% of the consumer sample
6. Product reviews	Product information and reviews from other consumers (Stated by 46% of the consumer sample)
7. Product Information (excluding ecological related product info)	Product information, personalized or aggregate product sales promotion, complementary information (cooking time etc.) (Stated by 66% of the consumer sample)
8. Product purchase selection	Barcode / QRCode / NFC identification of consumer selected products, Shopping basket cost (Stated by 73% of the consumer sample)
9. Self checkout / Electronic payment	Ability to self checkout and electronic payment (Stated by 60% and 33% of the consumer sample respectively)
10. Online loyalty points	Online assignment, presentation and exploitation of the loyalty programs the consumer participates in (Stated by 40% of the consumer sample)
11. Online shopping/delivery	Ability to shop online / Delivery (Stated by 40% of the consumer sample)

Extending the Services to Support the Green Consumer

As stated by the majority of the lead consumers in the course of the in-depth interviews, the aforementioned services pertaining to the need for identification and selection of product for purchasing [Services: 1-4, 6,7] should "include information on ecologically related information" such as CO_2, energy efficiency, recycling

information etc. Further on, the majority of the lead consumers proposed an eco-awarding program as an extension of the online loyalty points program [Service 10] in order to give them incentives to select ecologically friendly products prior and during the moment of purchase. This includes:

12. Service of product "eco-friendliness": The consumers requested a service that would inform them on the sustainability and eco-friendliness of the product. The service should provide information related to the production and distribution process followed for the product, its certifications, eco-comparative product information etc. (Stated by 73% of the consumer sample for extension of services 1-4, 6,7).

13. Awarding program service: The proposed service would include a "loyalty program" type of service where ecologically conscious consumer behavior would be awarded. The consumers described a mechanism where the consumer collects points (similar to the loyalty points, e.g. ECOPoints, ecology points, green points, green bonus etc.) when one purchases eco-friendly products and later on he/she can exchange the received points for price reduction or free products. The presentation of the proposed service was described being available both online and offline (Stated by 87% of the consumers consumer sample as an extension of service 10). The following table presents the services that have been identified by lead consumers during the in-depth interviews. The percentage indicates the consumers that identified the need for each respective service during the interview.

4.3 Gamification Insights on Driving Consumers to Endorse Sustainable Consumption

In the process of the in-depth interviews, consumers expressed their opinions on the various processes and stated their terms and subsequent degrees of engagement and expected benefits from participation in such an effort. The lead consumers identified the following in terms of gamification elements eligible for introduction in the ecological FMCG shopping context. Consumers indicated that in the process of creating an experience that would drive themselves as well as other consumers to behave in an ecologically conscious manner in the shopping context, a connection to the actual shopping process is important. A direct link between the shopping choices and the game mechanics should exist. The following statement illustrates the proposal: "When you shop in an ecological (or not) way something is triggered and something happens". This direct link from shopping behavior to a game-like experience (or actual game) could be established (as described by the majority of the consumers) by the introduction of a mechanism "loosely related to the loyalty scheme that already exists". At present, when consumers shop in a specific manner, they receive loyalty points that they later on redeem for various commodities or price reduction. In extension to the previous concept, the consumers described a service where you are presented with the option to collect points (termed ECO Points, Environment Points Green Points, Nature Points etc.) when you opt to purchase ecologically friendly products. In regards to the point awarding system, 93 % of the consumer sample stated the point-awarding mechanism should be positive. Elaborating on the previous, when a consumer selects to purchase a product that is "eco-friendly" he / she should

receive points that add up to a (or a set of) accumulated total(s) towards a certain and clear goal.

Extending the point-awarding system and transferring it into a possible game (or game-like schema), consumers identified the key characteristic of comparison. Operating under the assumption that shopping in an ecologically conscious way leads to the accumulation of points, consumers stated interest in the ability to see the impact of their choices compared to the impact of other consumers' choices.

Levels of comparison: The lead consumers indicated different setups of comparison as optimal for engagement efficiency. In the context of comparison with their close friends in the form of ranking, 67% of the sample stated that they would like to know their own environmental consumption (past, current and evolution of) as individuals as well as where they rank amongst their friends. As the comparison expanded to include acquaintances, the percentage of consumer's interest to receive comparative results dropped to 33 %. A further extension to the degree of city improved the interest to receive comparative results to 40 %, and the extension within the country presented a 26% of interest to receive comparative results. From then on, comparison on the level of continent as individuals was described as out of context and the participation intent was reduced. Upon concluding the comparison levels, the majority of the participants stated that besides individual comparison they would be interested in a community approach of the same design.

Community formation and comparison: Pertaining to stated intent of participation, the prevailing community formation design for comparison and ranking (based on ecological consumption and behavior) were identified as the City Community, Country Community and Virtual Community. (a) City community: The respondents expressed increased interest in formation of the City Community for degree of community comparison especially when the incentives for participation spanned from the virtual world to the real world and were of environmental nature. The participation to the game and engagement in environmentally-conscious shopping behavior presented a 15% average of acceptable raise to the premium price for eco-products based on incentives and during a contest. (b) Country community: The country community, although presented as an important driver towards the intent to participate, did not display as high engagement in ecologically-conscious shopping behavior as the participants felt that the incentives to participate in a contest were out of reach. (c) Virtual Community: Besides physical communities, consumers displayed interest in the possibility to create custom and virtual communities and participate in contests mostly bearing virtual prizes.

Incentives for Participation

Another important gamification element is the incentive mechanism(s) employed. As the point-awarding system presents the common comparison denominator the incentive mechanisms are to employ it. During the in-depth interviews, various incentive mechanisms were proposed with the most prominent being: (a) Monetary incentives (consumer / environment): After the accumulation of a defined amount of points (absolute or relative to time / effort) the consumer would be awarded with price reduction on ecological friendly (or not) products of their choice. The incentive was found

applicable to individual rewarding (contests or continued) and is supported by 67% of consumers. Consumers additionally stated a different type of monetary incentive mechanism where the reward would be in the form of "Doing something for the environment". In this case, consumers stated that they would participate in the context of a contest if the defined prize addressed an environmental issue / supported a cause. The aforementioned type of rewarding systems was found applicable to community rewarding (mostly contests) supported by 67% of consumers. (b) Virtual incentives: The incentive mechanism was described as extendable / transferable to the virtual / online / game world. This type of incentives would include (but not limited to) the awarding of personal and community badges (eco stars, trees, virtual forests etc.) as defined by the respective rules of the game(s) or game-like application, the customization of digital consumer representations (avatars, profiles) and virtual environmental quests (both educational and entertainment nature). The respondents indicated that although monetary incentives are important, virtual incentives are sought out particularly for continuous engagement with the process in its entirety (in-between the "real world" incentives) as supported by 73 % of consumers. (c) Social media incentives: Another form of incentive mechanism portrayed by the majority of the lead consumers was the incorporation of social media in the process. This particular mechanism, although adopted by the majority of the sample, was adopted at various steps of the gamified experience and in varying degrees. Elaborating on the previous, the consumers stated that their social media presence and exposure during the gamified experience should be under their control.

Off-line approach: The aforementioned gamified experience was found to be transferable to an offline context as well by the consumers, assuming that the retailer/supplier would provide them with the appropriate infrastructure at the retail store. Although the point of contact to the service would be limited to the time the consumer was within the store, the experience was equally valued by the majority of consumers and 53 % stated that they felt that they would still participated.

5 Discussion - Implications

As the focus of the in-depth interviews was to garner consumer perceptions on gamification and green consumption in the FMCG sector and to identify potential benefits from the introduction of gamification, results indicate a potential benefit from the introduction of gamification in the FMCG process. The percentage of consumers that stated their intent to participate in the gamified process presents an opportunity for the sector to exploit a new marketing medium in their strategies. The introduction of gamification though is not panacea in consumer engagement. The in-depth interview results indicate that not all consumers respond / endorse all aspects of gamification in the same degree and different gamification dimensions, result in different outcomes in terms of engagement / stated intention to participate etc. Thus the need for personalization. The ability of the proposed gamification scheme to be customizable and personalized should span throughout the entirety of the selected and implemented processes to become efficient. Although the previous is a generally applicable

condition, the interviews showed consumer clusters of common beliefs and behavioral patterns creating thus an initial dataset of common attributes. An important insight pertains to the issues that arise from the consumer privacy concerns in relation to the need for personalization. In the process of participation in the aforementioned gamified scenarios, the consumers stated that the quality / amount of information available for processing and feedback should be subjected to regulations securing them from misuse or alternative use (other than the gamified service itself). The previous insights comprise the academic implications of the present research.

An additional important insight pertaining to the efficiency of the engagement provided by the utilization of gamification to the ecologically conscious consumer behavior and its extended managerial implications is presented by the stated behavioral conversion whilst participating in an environmental gamified contest. In a scenario of their choice, the lead consumers stated their intent to (a) pay premium price for eco-friendly products at a higher margin and (b) select to purchase eco-friendly products on more occasions and product categories. The stated behavioral conversion was higher (and maintained) throughout the existence of the game: 80% stated that the acceptable premium price could rise from 5% to 25% relative to their initially stated maximum acceptable premium (15% on average). In the case of the removal of the gamified service(s), 33% of the consumers stated that they would be more (in comparison to their previous state) ecologically conscious on their shopping behavior. The latter illustrates the potential for shift in shopping practices towards more sustainable practices. In conclusion the results deriving from the analysis of the in-depth interviews, support the potential benefits that derive from the introduction of gamification in the FCMG sector in regards to the ecologically conscious consumer behavior.

6 Limitations – Research Agenda

This research is not without limitations. A potential limitation is the use of student respondents that although are consumers and the FMCG shopping context was deemed relevant, the homogeneous nature of the sample (education) likely resulted in a more restricted variation of personal characteristics than if a more heterogeneous group was used. Another possible limitation arises from the inherent limitations of in-depth interviews as the probability that the interviewee may distort information through recall error, selective perceptions and desire to please interviewer, yet all appropriate measures was set in order to negate the limitations of the in-depth interviews (Lofland & Lofland, 1995; Patton, 1990).

The present article presents the qualitative analysis and the consumer insights that will be used as input on the research agenda. Future research includes a lab experiment where the applicability of gamification will be examined in a simulated shopping environment that employs gamification processes and the analysis of results in correlation to extant consumer behaviour models, a European survey to test the appropriate game mechanics in consumers from different countries and a filed study to measure the impact of the introduction of gamification to the consumer's endorsement

of sustainable patterns of consumption and the transition to a green consumer. Although gamification is in its infancy, the future seems prominent.

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