Millennials' responses towards social media claims:

The example of recyclability as the unique advertised feature

Valentin Baron [152118243]

Dissertation written under the supervision of Marta Bicho

Dissertation submitted in partial fulfilment of requirements for the degree of

MSc in Management with Specialization in Strategy and Entrepreneurship
at the Universidade Católica Portuguesa, January 6th, 2021.

Thesis title: Millennials' responses towards social media claims: the example of recyclability as the unique advertised feature.

Keywords: Millennials, social media, frequency exposure, recyclability

Author: Valentin Baron

Abstract

The objective of this paper is to scrutinize the differences in consumers' answers, namely purchase intention (PI) and willingness to pay (WTP), to a specific customer segment, namely the millennials. An additional emphasis would be placed on the effect that frequency exposure (FE) on social media could play on both purchase intention (PI) and willingness to pay (WTP). A quantitative experimental design was applied within an online questionnaire to assess the research hypotheses on a non-probability sample of the pre-defined consumers, using the category of clothes and accessories, and specifically t-shirts. Data was inspected using separate samples t-tests. To evaluate the moderation hypothesis, the SPSS PROCESS macro was also rolled out. The experimentation demonstrated that purchase intentions were unquestionably higher for millennials exposed to the feature, whilst willingness to pay persisted as being analogous between the two groups. Outstandingly, the moderating effect of frequency exposure couldn't prove being conclusive, and therefore couldn't contextualize the effect of the type of claim visualized on millennials' answers. This study nonetheless contributes to the research on consumer behavior towards social media claim, illustrating that differentiated targeted claims are perceived as affecting similarly the final consumer response, all the more as frequency exposure does not alike explain the mentioned causal relationship. Still, this should help managers and marketers to build upon a more elicited message that magnifies purchase intention between two randomly assigned groups from a same sample of study.

Resumo

O objetivo desta tese é analisar as diferenças entre a intenção de compra e disposição para pagar (DP) dos consumidores, isto no contexto dos "millennials", levando também em consideração o papel moderador desempenhado pelo uso de frequência nas redes sociais. Um desenho experimental quantitativo foi aplicado dentro de um questionário online para avaliar as hipóteses de pesquisa em uma amostra não probabilística de consumidores, usando a categoria de roupas e acessórios, e especificamente t-shirts. Os dados foram analisados usando testes t de amostras separadas. Para avaliar a hipótese de moderação, a macro SPSS PROCESS também foi executada. O design experimental demonstrou que as intenções de compra eram inquestionavelmente maiores para os millennials expostos ao recurso, enquanto a disposição a pagar persistia como análoga entre os dois grupos. O efeito moderador da exposição à frequência não pôde ser conclusivo e, portanto, não foi possível contextualizar o efeito do tipo de afirmação visualizada nas respostas da geração millennials. Este estudo, no entanto, contribui para a pesquisa sobre o comportamento do consumidor em relação à reivindicação dos mídia social, ilustrando que reivindicações direcionadas diferenciadas são percebidas como afetando de forma semelhante a resposta do consumidor final, ainda mais porque na exposição relativa à frequência não explica a relação causal mencionada. Ainda assim, isso deve ajudar os gestores e profissionais de marketing a desenvolver uma mensagem mais elicita que amplie a intenção de compra entre dois grupos designados aleatoriamente de uma mesma amostra de estudo.

Acknowledgments

First of all, I would like to thank my thesis supervisor, Marta Bicho, who accepted to take up the challenge by my side. She consistently mapped out the path for reflexion, by providing a thorough and thoughtful framework for progress.

Second of all, I am very grateful to the teachers and students who came along my way during those two years of studies. Courses I attended and relationships I fostered paved the way for ongoing personal fulfillment. This research subject is therefore the culmination of my journey at Católica Lisbon, and my academic studies as a whole.

A final note for those that I may have forgotten, who contributed to the successful submission of this paper in a way or another, whether spiritually or physically.

Table of Contents

Appendices

Table of figures & tables

Glossary

GRC - Green-Related Claim
MI - Millennials
NGC - Non-, Green-Related Claim
PI - Purchase Intention
RQ - Research Question
WTP - Willingness to Pay
FE - Frequency Exposure
PP - Preferred Platform
DV - Dependent Variable
IV - Independent Variable

1 Introduction

Through the last decade, and especially during the Turkish crisis (1994), varied studies demonstrated that durable goods spending was the most sensitive component to uncertainty (Duygan, 2004). Indeed, the impact of a crisis immediately affected consumer behavior as a whole, all the more as there still is an active smoothing on consumption expenditures, that cannot be related to any change in income and prices that follows a crisis (Dutt, 2011).

On another note, in the past century, claims have been privileged by marketers to communicate more effectively, with an emphasis placed on the content (BELCH, 1981). Unsimilarly though, any sidedness of a message does not have an effective response on a consumer purchase intention regarding an advertised product (BELCH, 1981). But it depends on the purchase stage at which the pointer is set: for crossed-media exposure, for instance, that works as a driver of purchase intention, the correlation is highly positive between digital versus traditional media environment exposure (Yuchi Zhang Tomas Falk et al., 2020). On a different note, experiments, more specifically those administered in store, demonstrated that, when having to choose between a respected green brand and a neutral leisure clothing brand, shoppers responded more positively, in terms of purchase intention, towards the environmental claim emanating from the green brand than from the other leisure label (Phau et al., 2007). The targeted audience lingers to be accurately narrowed, as the most significant and atypical customer segment lies in millennials' behavior, especially while purchasing online. They are depicted as heavy users of social media, both from a production and consumption perspective (Sago, 2010).

Contextually speaking, this paper was written under the unexpected circumstances of the Coronavirus outbreak, that disseminated all around the world in spring 2020. Oil, gas, and gold appeared at that time to be the most severely damaged sectors (recording a steep fall of about -50%), but media and household goods consumption were not that spared, -32% and -34% respectively (Fernandes, 2020). If a global approach on private consumption was retained, it would reach, in that case, and following statistical predictions, a 8% sharp fall (Barro, R.J., Ursua, J.F. &Weng, 2020).

1.1 Problem statement with research questions

This thesis aims at understanding if the exposure of a difficult customer segment to apprehend, the millennials, to green-related claims (namely here, recyclability) yields a different impact

on them compared to the exposure to non-green advertising. Also, as they privilege online platforms, it will be questioned what the role of frequency exposure, specifically on social media, might be, and affects the previously-mentioned relationship. Therefore, the goal will be to compare millennials responses, whether exposed to green-related claims on online platforms.

As a result, the first research question (RQ) to be tackled is the following:

> **RQ 1:** Are there differences in consumer responses (purchase intention & willingness to pay) towards green-related claim vs. claim not using specific, green-related content on social media?

However, building upon studies conducted on social media, one may highlight that the degree of exposure (here, F.E) on social media from consumers might have an impact on the relationship between the type of advertisement displayed and consumers' responses (P.I and WTP). Nonetheless, variations in social media exposure (F.E) for green-related advertising have been dug little so far:

> **RQ 2:** To what extent frequency exposure for social media millennials affects the relationship between the type of claim and purchase intentions or willingness to pay?

All in all, this investigation will strive for figuring out the differences in consumer responses (P.I and WTP) as far as green-related advertising vs. non-green related advertising are concerned, and the repercussion of social media exposure (FE) on those very same relationships.

1.2 Academic and managerial relevance

When it comes to the target segment under study, the millennials, in the USA solely, they represent an eight-digit potential target, totaling seventy-five million individuals (Taylor, 2018). This figure turns into a fifty-four point three-billion-dollar market opportunity when it comes to overall sales (Taylor, 2018). As a rule of thumb, this customer segment spends six hundred million dollars a year and represents the humble part of thirty percent of the whole retail shopper segment in the USA (Christopher et al., 2013). The same tendency is to be depicted in China, India, Brazil and Indonesia, to name several developing countries, along with Europe, possessing all together more than half of the world's millennials (Saranga, H., Mudambi, R., & Schotter, 2017). But seizing purchase rationales are quite unclear as

demonstrated by (Brown et al., 2007). Indeed, two main buying schemes have to be introduced: millennials act in a "conceptual" way, first, and follow "conceptual" factors then, when it comes to purchase behavior, especially towards green-related products (Brown et al., 2007). Additionally, extra psychological reasons may lay behind those choices. For instance, it has been proved that peers, surrounding millennials, act as role models in shaping not only learnings, but likewise preferences for the significance of green consumption (Huffman, C., Ratneshwar, S., Mick, 2000). They undoubtedly represent reliable sources of information. On top of that, as for every teenager, consumption plays a central part as a "phenomenon of human life and society" (Huffman, C., Ratneshwar, S., Mick, 2000). The stake for marketers is therefore double: understanding how to better target millennials by analyzing not only all the external influences that may shape the decision-making process, but also internal psychological traits.

On a more global aspect, the millennial generation has become widespread, particularly among marketers and employers (Hoover, 2009). Firms are now willing to tap into a new market segment that is solely composed of young consumers (Nowak et al., 2006). When it comes to branding, features such as brand affiliation and salience may not be the only drivers to trigger purchases for the group in question. Millennials seem to likewise favor product characteristics. This output was clearly revealed through a descriptive study conducted in the US (Lu et al., 2013). In that study, researchers questioned millennials about the product characteristics they were looking for when purchasing green-related products. Attributes such as "recyclability", "biodegradable" and "positive health effects" demonstrated the strongest correlation (Lu et al., 2013). Investigations pointed out also that millennials purchase intention and eco-friendly attributes were two correlated variables (Lu et al., 2013)

Previously articulated studies should now be concerned that greening a product firm offering passes through the articulation of primary green attributes of their products: to showcase a product, it may be shrewd to focus on the specific bonds among these product characteristics and the current firm offer. On top of that, this can pave the way on how to overcome transitioning non-purchasers to purchasers of green products, as far as marketing is concerned (Geap et al., 2018).

1.3 Research methods

In order to respond to the research question, the very first step to put in place was the collection of data. To successfully carry out the study, an experimental design was applied within an online questionnaire. Using this design enabled the study to expose one experimental group to one treatment condition and compare the results to one control group not receiving the treatment (Malhotra & Birks, 2007). Besides randomly assigning subjects to a given group (either controlled or treated), the model also controls for most threats to internal validity thanks to rigorousness (Erchul & Sheridan, 2014).

The recipients of the assigned questionnaire, following a true experimental design allowed to test the independent variables of the model, focused on claims (green-related claim, containing the feature, VS non-green related claim, exempt from any feature). To maximize optimal data collection, the scenario privileged was to display an advertising pop-up, in which consignees found one of the randomized advertising claims. To contextualize claims, the category of underwear, and more precisely t-shirts, were utilized, as the recipient for both green-related, and non-green related contents. A previously conducted pre-test brought to light the validation of the dependent variables (Malhotra & Birks, 2007), as well as the preferred product category, displayed among the selection of varied categories purchased usually by millennials. Turning now to the dependent variables, namely, purchase intention (PI) and willingness to pay (WTP), the latter were carefully picked out based upon precedent research of quality and developed through several scale measures academically recognized as such (Morwitz V, 1997). Drawn from literature, once gathered, data went through the SPSS software to output t-tests analyses. When it came to the identification of the moderation effect, SPSS process macro went under study.

To not misinterpret the results, the broadest and most representative sample of millennials got reached out through main social media channels (Facebook, Instagram, WhatsApp, LinkedIn), both in English and in Portuguese. There was no preference shown for the country of residence, the educational background, nor the native language spoken (the questionnaire was available in English solely). The choice of not favoring one pattern of response was also shown by releasing the questionnaire outside of social groups from business schools (and more particularly for Catolica's network).

1.4 Outline

Following this paragraph, the first chapter will shed light on applicable literature on the topics in question. They will be examined, and so do the research hypotheses. Pertinent constructs related to green products, advertising, and millennials will be distinguished. Similarly, a complete discussion of those concepts will be presented, lastly conciliated in a conceptual framework. Alongside the third chapter, the methodology used to verify the hypotheses postulated will be formulated, which will encompass thorough descriptions of the experimental research design, the operationalization of constructs and finally the scales that were used within the questionnaire. In the succeeding chapter, the sample of analysis will be outlined, the success of the evaluation graded, and data, once converged, will be scrutinized. The latter parameter will be used to control for the hypotheses and the statistical model put in place. Ultimately, the fifth chapter will address the results extracted, it will emphasize implications from a managerial standpoint and highlight potential limitations and opportunities for scholars.

2 Literature review and hypothesis development

The subsequent part will shed light on the suitable compositions emerging from theory and its study primary purpose. It specifies definitions and conclusions of precedent pertinent observational research on the theme, emanating from academic journals and other scientific articles.

To begin with, separate evidence related to green products and advertising will be scrutinized and formulated. Subsequently, research on recyclability, purchase intention, millennials and social media advertising will be examined, with the obtained related hypotheses. Conclusively, the constructs and hypotheses will be interpreted in a conceptual framework.

2.1 Purchase Intention

A commonly accepted interpretation of purchase intention may surround the fact that for any consumer, it is the probability or planning, to be eager to acquire a given item or service over the short run (Wu et al., 2012). An extension of this terminology (Ajzen, 2012) was proposed through the theory of planned behavior, exemplifying the fact that corporal “hexis”, such as attitudes, but also subjective norms constructed by society, impact future potential intentions. Alike planned behavior, attitudes that consumers foster with labels or products sways purchase intentions; drawn from this analysis, purchase intentions are therefore prognosticators of

current purchase attitudes (Naidoo & Hollebeek, 2016). However, in real life, consumers may express willingness to purchase a given product but fails in acting accordingly: this observation serves as the anchoring point for the attitude behavior gap theory (Newholm & Shaw, 2007). This construct points out the contradictory relationship between intents and current actions. A notable construct pushed the analysis further by accentuating the warped correlation between attitude, stated PI, and actual behavior (Morwitz V, 1997). Still, PI is a predominant variable when analyzing consumers, as being utilized by countless specialists and academicians for the pertinence it provides (Grewal et al., 1998); (Naidoo & Hollebeek, 2016)

2.2 Willingness to pay

In macroeconomics, willingness to pay is designated as such under the term of "reservation price". It corresponds to both psychological and economic boundaries the consumer sets for oneself when willing to acquire a desired product or service of any kind (Kohli, 1991). However, this estimation is subjective, as it may be based on the sole personal evaluation of the customer, that may differ from one consumer to another. (Backhaus et al., 2005) refer to this attitudinal aspect as the perceived value of products : the consumer will assess to which extent any product may be useful depending on what it offers VS what it costs (Zeithaml, 1988). Still, there lies an estimation discrepancy, named the hypothetical bias: WTP can be hypothetically judged by consumers as lower than they would actually react in real life (Backhaus et al., 2005). All things considered, the proxy keeps conveying valuable indicators regarding consumers' estimation for products and services and what would presumably be the optimal price to charge to that purpose (Breidert, C. ; Hahsler, M. ; Reutterer, 2006).

2.3 Frequency Exposure

As millennials have grown up in the digital age, they therefore show greater familiarity than previous generations with communication, digital technologies, but most importantly media (Kaifi et al., 2012). The new mass media of this current digital age appears to be social (Oliver et al., 2018). Social media are Internet-based, disentranced, and persistent channels of mass personal communication facilitating perceptions of interactions among users, deriving value primarily from user-generated content (Carr & Hayes, 2015). Recent studies carried out by the Pew Research center (Perrin, 2015) demonstrated that 90% of all 18-29 year old's in the USA use at least one form of social media, accessed on a daily basis. When it comes to time, they spend up to 6.19 hours weekly on the platform they surf on (Perrin, 2015). For Facebook solely,

the total number of active users of the platform reaches 500 million, any average user relies on a network of 130 friends, and usually connects to 80 pages, whether it deals with communities, groups or organized events. The average using time is about 46 mins per user (Facebook pressroom, 2011).

It is to be noticed that after having been exposed to social media (precisely here for Instagram, Snapchat and Facebook), millennials elicit certain responses, whether positively or negatively. On the positive side, for example, it takes the shape of prosocial motivations and prosocial behaviors, such as "doing good for others", or "help someone in need" (Oliver et al., 2018). On another note, as millennials grew up by socializing and making purchases online, the brands that were popular in the previous generation are being rejected. Likewise raised in an ever-going media-saturated place, their response to advertisements thus vary significantly. Additionally, millennials are using reviews posted through social media and other channels to warn about their future purchase's decisions (Mangold & Faulds, 2009). As a result, when it is time to make a purchase decision, millennials may think of a brand and demonstrate a notable preference for it, based on the exposure to reviews and other forms of social media previously encountered (Oliver et al., 2018)

2.4 Marketing Communication Channels

Firm products that are successfully diffused in the market are traditionally made offline, through traditional mass media, however, with the recent development of the Internet, diffusion becomes more complex (Brown et al., 2007). If word-of-mouth was until then carried out offline, the new communication channel which occurs online changes and influences production diffusion (Emmanouilides & Davies, 2006). This is made possible thanks to online social network sites (e.g. : Facebook) (Brown et al., 2007; (Dellarocas, 2003), and online product reviews (Bortinger et al., 2010) still with word-of-mouth, but unsimilarly carried out. In terms of perception, word-of-mouth seems more credible than general advertising, as it went through "people like me" experience (Allsop et al., 2007), removing any doubtful risks involved in purchasing a so-called unknown product or service. As a result, it is becoming the most influential communication channel (Keller, 2007), through which consumers are influenced for a given product choice (Walsh et al., 2011). Those virtual tools allow any customer to provide and receive information and therefore impact the decision-making process. But not only.

Among other stages of the customer journey implied, there are also awareness, information acquisition, attitudes, and post-purchase evaluation (Mangold & Faulds, 2009).

To be at advantage in competing for consumers' attention, marketers need to aim at "Market mavens" (Williams & Slama, 1995). "Market mavens" are individuals who have sound knowledge about a given product and either disseminate information about it or are willing to share expertise and opinions with other prospects (Goldsmith & Horowitz, 2006; Wiedmann et al., 2001). That way, any customer's willingness to participate in virtual communications is a key aspect of promotional success (Parent et al., 2011). Virtual communications are privileged for fifty-six percent of millennials when talking about products and services, representing a twenty-one-percentage point more than any other customer segment. Those platforms empower millennials to be more active in the promotion and advancement of brands and products. This is precisely the aim set by marketers, for whom it is clear that, by reaching millennials with this new offline modus operandi, they could potentially target a vast number of "market mavens" (Mangold & Faulds, 2009). Those "market mavens" could be presumably found in male millennials (Mangold & Faulds, 2009), who may express more than women, and are prompted to post product reviews while gathering product information.

Another issue to be tackled by marketers deals with brand identity. With traditional offline communication channels, customers had to embrace a brand's world. Now, with online platforms, the brand must join the customer's lifestyle. The dilemma lies in living up to the values of the new generation of customers, so that they can gain and retain them as customers at the end (Alhidari et al., 2015).

2.5 Advertisement

Advertisement is an accurate source to spread updated and motivated information among a predefined and targeted audience (Rehman ur et al., 2019). Back to 4000 BC, advertisement has been debated since then among researchers with a view to presenting specific business content, that has been understood further as a paid form of presentation of goods and services (Danesi, 2015). Through the preceding thousand years, advertisement was held as the wall, painting rock (Schwarzkopf, 2011) and word-of-mouth (Rehman ur et al., 2019). Advertising emerged with the development of paper and printing. Indeed, by using newspapers, advertisement spread its wings (Petty, 2015), as it allowed to promote goods and services among targeted markets in a proper manner. This breakthrough was quickly followed by the

development of radio (Applegate, 2000), and later on television (Weinstein, S., Appel, V., & Weinstein, 1980) cemented the realms of digital ads and extended this conception to online advertisement with the development of the world wide web . Through the internet, social media became the new channel to online advertisement on a worldwide scale (Janoschka, 2004). As of today, since digital is the new world, advertising agencies are doing their utmost to make the switch toward profitable digital channels (Schechter, D., Kaufman, M., & Matthews, 2015). A related high growth is expected in the investment and in the adoption of digital advertisements to convey the expected messages in more personalized ways (Schwarzkopf, 2011).

2.6 Green Advertising

When turning now to green advertising, a handful of definitions may be thought of, however, for the sake of the analysis, only one will be kept aside. Green advertising is the *advertising that emphasizes the environmental friendliness of a product* (Manrai et al., 1997) and must meet one or more of the given criteria as followed: (1) it addresses the relationship between the product and environment either explicitly or implicitly, (2) it promotes a green lifestyle with or without highlighting a product, and (3) presents a corporate image of environmental responsibility (Iyer & Banerjee, 1993). Green advertising is to be linked likewise with four sub streams of research under study. The very first one is related to the broadcast content; this surrounds areas of studies such as environmental advertising claims (Carlson, L.; Grove, S.; Kangun, 1993) ; product categories and media vehicles (Iyer & Banerjee, 1993) and advertising appeals (Iyer & Banerjee, 1993). The second domain of study includes consumers as such, described as environmentally-conscious, as the latter enabled green marketing to thrive (Carlson, L.; Grove, S.; Kangun, 1993). Going further into the analysis of this customer bracket, those who are probably the main recipient of green advertising are highly educated, often white female professionals occupying managerial or professional positions. On top of that, they appear to be real environmental activists, as described in GfK Custom Research North America (2007) and Grail Research (2011). The third stream of research depicts the factors that influence the effectiveness of green advertising. They can be either visual, textual, environmental appeals (Xue & Muralidharan, 2015); or abstract versus concrete claims. Highlighting claims, several researchers placed the emphasis on whether the benefits of eco-friendly products were other-oriented versus self-oriented (Yang et al., 2015). At last, green advertising needs to be understood from a wider perspective, how consumers respond to green advertising. To that purpose, environmentally conscious consumers do not necessarily respond to claims for sole

pro-social rationales, but according to various factors, for instance when it tackles consumption and environmental concerns (Uddin & Khan, 2016).

2.7 Green product

Although literature lacks in defining properly what a green product is, there are common characteristics that may be put forward: green products, first, are items that are energy-efficient, both in use and in-production (Bhatia & Jain, 2014). They also minimize water usage (while being used, and throughout production cycles). As far as air quality is concerned, now, they are supposed to release low hazardous emissions (Bhatia & Jain, 2014). The four-point deals with the benefits provided by those items: they need to be perceived as safe and healthy. The next criterion encompasses material characteristics: either recyclable or made of recycled contents; durable (over time); biodegradable; renewable or reused (Bhatia & Jain, 2014). In addition to those characteristics, green products are likely to be certified by third parties, whether it comes to public or transport standards (organic labels for food, or FSC wood for instance), as detailed in the above-mentioned study carried out. The very last element that has to be taken into account is that all of those products need to be locally produced (Bhatia & Jain, 2014). To extend the previously-mentioned elements, green products can be therefore defined as being items that are manufactured using toxic-free ingredients and environmentally-friendly procedures, and that is certified as such by a recognized organization (Gurău & Ranchhod, 2005).

2.8 Recyclability of products

Recyclability is often opposed to non-recyclability, meaning products that are directly thrown away after having been used by any consumer (Trudel & Argo, 2013). These are also products called garbage, defined as discarded or useless materials (Trudel & Argo, 2013).

On the opposite, a recyclable item is a product that has future use (Trudel & Argo, 2013). Thus, from one side, there should be products that are perceived as useful, more typical of a recyclable one, and on the other side products that are useless, more typical of garbage (Trudel & Argo, 2013). Building on that, products are recyclable only if they fall under specific characteristics (Yadav et al., 2018): constituent elements that enable to categorize whether a product is recyclable steps in during the design process. In fact, products can be labeled as recyclable if material selection process, conceptual design and prototype development match accurately defined recyclability criteria. Digging deeper into the analysis, the study in question (Yadav et

al., 2018) highlights that products must fulfill specific criteria index, namely the disassembly index, as well as material choice, to be recyclable. Stricto-census, a product is deemed to be recycled whether it comes from direct reuse or recyclability, remanufactured, regenerated from raw materials or incinerated for energy (Bell et al., 2006). Moving now to materials utilized for recyclability purposes, four main categories are highlighted: metals, paper, plastics and glass. Talking about plastics, as being the materials with the greatest recyclability among the general public, two nuances can be drawn. From the easiest standpoint, thermoplastics, such as low-density polyethylene, polypropylene, polyvinyl chloride, and polyethylene terephthalate are smooth to recycle. Oppositively, thermosets (polyesters, epoxides, and phenolics) are the most complicated materials to recycle (Bell et al., 2006).

2.9 Millennials

The twenty-first century shone with the fulfillment of a brand-new generation. Termed "Internet Generation", "Echo Boomers", "Nexters" and even "Sunshine Generation" in Canada (Raines, 2002), "Generation Y", or "Millennials" are the most commonly used denominations for this new cohort of individuals. As a result, for the sake of the study, the designation "Millennials" will be privileged. This demographic segment comprises individuals born between specific bracket dates. Depicted by (Borchert et al., 2000), it can only refer to adults or teenagers born between 1982 and 1999. Chronologically speaking, this demographic bracket follows the Generation X or Gen X (born between 1960 and 1980), their very same parents, themselves succeeding to the Baby Boomers (born between 1945 and 1960), as underlined by (Simões & Gouveia, 2008).

Attitudinal interactions of millennials vary much from previous generations. Indeed, they are depicted as being diverse, educated, and technologically savvy (Lu et al., 2013). They are likewise optimistic and socially compromised (Raines, 2002). Seven psychological traits are often put forward to describe their aspirations: special, sheltered, confident, team-oriented, conventional, pressured and achieving (Borchert et al., 2000). Turning now to the representation of the world they hold, millennials are the group of consumers the most environmentally-conscious (Dagher & Itani, 2014). It expresses itself through civic-minded commitments: they want to contribute to the greater good, in doing volunteering activities for instance. For them, companies are at the core of the engagement towards communities, and they would bet on ways that create a sustainable environment without hesitation (Raines, 2002).

As for brand engagement, more than a third of them favor socially and environmentally-friendly brands that they acknowledge as being greener than the rest, such as Toyota, Honda or Whole Foods, just to name the three most-cited brands (Smith, 2010). The long-term effects that products may have on their health, on the community, but on the environment too is an increasing growing concern for this generation (Lu et al., 2013). To achieve this goal, 75% of this consumer group is willing to pay extra for everyday life products who have a positive social and environmental impact, driven by personal values and benefits (Naderi et al., 2018). Nonetheless, paying more does not imply feeling involved in green related activities (Diamantopoulos et al., 2003), as pointed out from surveys showing that solely one third of US millennials declared recycling on a permanent basis, compared to their elders (the Gen X), for whom figures reached more than the half (Naderi et al., 2018). On another note, however socially compromised they may be, millennials are unlikely to opt for the environment over their personal comfort or convenience to positively impact the environment, as analyzed further (Grønhøj & Thøgersen, 2009).

In order to encompass the above-mentioned concerns, the following hypotheses are being questioned:

H_1 Millennials responses are more positive towards claims containing the word "recyclable" than towards advertising not mentioning the feature. Hence:

- **H_{1a}:** Millennials will have higher purchase intentions (PI) for products claimed as recyclable vs. products with the absence of the claim.
- **H_{1b}:** Millennials will have a higher willingness to pay (WTP) for products claimed as recyclable vs. products with the absence of the claim.

H_2 Frequency exposure on social media (FE) will moderate the relationship between advertising claims and millennials responses. Hence:

H_{2a}: Social media Frequency Exposure (FE) will moderate the relationship between the type of advertisement and purchase intention.

H_{2b}: Social media Frequency Exposure will moderate the relationship between the type of advertisement and willingness to pay.

3 Conceptual Model

Building upon the extensive revision of the literature that guided pertinent construction and the above-mentioned hypotheses, a conceptual model can be framed. Additionally, the following part will exemplify the methodology to assess it.

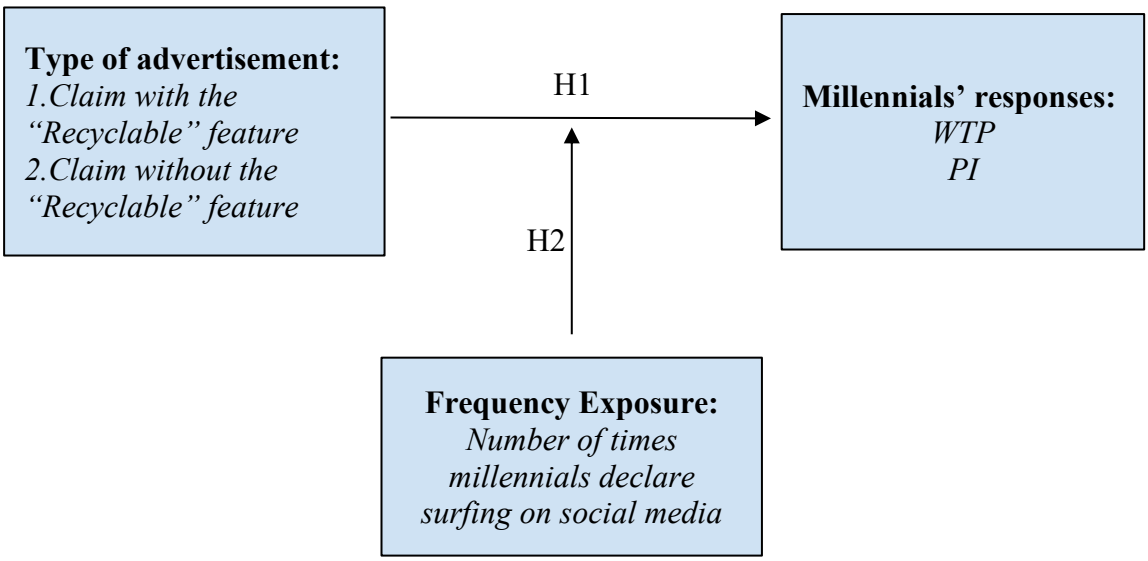


Figure 1 : Conceptual model

4 Methodology

This section is about to point up the process utilized to carry out the research questions, to scrutinize the previously written hypotheses, as well as gauging the optimal statistical model. The latter encompasses a comprehensive sketch of the research design, how variables were operated, the gauging tools utilized, and finally, the sampling method in question.

4.1 Main research approach

The primary goal of this dissertation was to evaluate the differences in millennials responses when exposed to claims containing a specific feature, and also the moderating part played by frequency exposure on this relationship, as illustrated in the conceptual framework. This led to the gathering of a population sample, as the purpose was to describe millennials' responses at a precise period of time to enable comparisons between groups (Saunders et al., 2009). To amass data, a questionnaire was designed, as it provides an efficient way to select responses from a known population sample before conducting the analysis (Saunders et al., 2009). The collection technique is therefore quantitative, as it gathers data that enables the future use of them on a numerical basis (Tashakkori, A., Johnson, R. B., & Teddlie, 2020). Additionally, as data was gathered only once, we may speak here of a quantitative research design on a mono-method basis (Curran & Blackburn, 2011).

On another note, we were interested, through a theoretical hypothesis, in finding out whether millennials' responses towards specific claims varied from one claim to another. Since we are thus questioning causality through an explanatory research, this quantitative study was carried out through an experiment. This particular design helped us define the experimental group (i.e., the group that is under planned intervention and manipulation, currently speaking, millennials exposed to a claim containing the "recyclability" feature), and the control group (millennials not exposed to the particular message). The DV (WTP and PI) were consequently measured before and after the manipulation of the IV (the claim). The given intervention on the IV may supposedly cause a threat to the accuracy of the findings, rather than any flaws within the design.

This is also the reason why an experiment was used, as the latter eliminates threats to the previously described internal validity. Apart from getting rid of impediments to internal validity, in an experiment, the experimental group is randomly allocated, based on the

probabilistic equivalence rule (the only reason why the group would "differ" is by chance). In addition to those criteria, rolling out an experiment enabled to measure the impact on the DV previously cited (WTP and PI), as well as control for any other variable formulated in the hypothesis n°2 (FE).

In order to put into practice the previously mentioned theoretical constructs, an online survey with pre-validated questions and specific measurement scales was primarily sketched out through a Word blueprint. Then it was administered, after external validation, on an online survey designer software called Qualtrics. Provided with an external hyperlink, respondents were assured to remain anonymous and unable to modify the questionnaire content (Malhotra & Birks, 2007). Another advantage of the hyperlink lies in the facility of reach, location, and completion of the questionnaire, contrary to other administering ways (Malhotra & Birks, 2007). Using an experimental design had likewise the faculty of lessening the impact additional variables might cause on the main IV under study (the contrasting claims) (Malhotra & Birks, 2007).

The first rationale that lies behind the choice of t-shirts as the preferred product category is justified through mere descriptive statistics. As a matter of fact, this item was selected by 39% of respondents in the pre-test, among other pre-selected categories favored by millennials on a usual purchasing basis. Differently, in the universe of apparel, university branded apparel, and among them, t-shirts, turned out to be the sole item positively valued by millennials. This precise and positive response for this given product category shapes the future WTP and PI towards apparel (Hyllegard et al., 2014). On another note, consumers, for instance in the USA who purchase eco-friendly apparel, and specifically t-shirts, are placing the emphasis on price, as the cornerstone of their willingness to pay (Rothenberg & Matthews, 2017).

4.2 Pretest

To assess as a priority, that respondent would gage the DV accordingly and select the product category that would fit best the frame of the experiment, a quick pretest was conducted. Administered on social media through a hyperlink, the pretest inspected a convenience sample of millennials, without any restrictions put in practice, as far as demographics are concerned. Among the sample of 23 millennials, and using pre-designed elicitation methods, 39% responded that t-shirts would be the most suitable product for an online claim, within pre-selected choices of answers. Still referring to t-shirts, 65% responded positively to purchase

intention assertions (on a 7-point Likert scale based on "agreement" type: neither agree VS disagree to strongly agree), meanwhile being reasonably scaled for price on the continuous price bracket proposed for WTP. Building upon those outputs, it was concluded that the DV, likewise the designated product category, could be put in place for the experiment within the upcoming administered questionnaire.

4.3 Data collection and samplings

As the questionnaire was willing to reach out to millennials exposed to specific claim messages, recipients needed prior knowledge in recyclability, hence the presence of the definition in one questionnaire block for those unfamiliar with the term. To make sure that the questionnaire was administered to the target segment in question, a screener was set at the beginning and directed towards the end of the questionnaire respondents who didn't match the screener criterion. As a matter of fact, students had not to belong to one bracket age lower or higher, since the scope was placed under millennials, and consequently assuring the collection of usable and proper data for statistical inferences. The administration of the questionnaire was carried out in English. Apart from that, the sample was under no other restriction. To ascertain that the sample was made available for a reasonable period, the link was usable from August 26th until September 4th. The attachment was solely posted on social media groups (Catolica Master's group, WhatsApp groupworks for instance), where fervent participants could handily be found.

Nonetheless, as of the 3rd of September, further to the depletion of any extra potential respondent, and following the deemed unreasonable quantity of answers for statistical inferences (just 106 registered replies), it was concluded that the rest of answers would be collected through the software Amazon Mechanical Turk. When it comes to participation incentives, for the questionnaire released on social media, cooperation was aided by a promised 40-euro prize, where email addresses would be amassed, and one picked out randomly on a software called "Tir-o-sor". Turning now to the M-Turk software, a price of 0,20 euros was set on each collected response to enable answers to remain of qualitative interest for the respondent and numerous in a timely manner. To boost participation, recipients had the possibility to share the link with others. As dealing with a quantitative design, it was conceded that artificed statistics had to be lowered as much as possible; therefore, the quantity of 150 respondents was set, likewise meeting the requirements of multi variation techniques in place for the study (Malhotra & Birks, 2007).

4.4 Research design

An experimental design consists in manipulating one or more variables, the measurement on a small number of dependent variables, and controlling for all other variables (Saunders et al., 2009). Manipulating the independent variable was needed to ensure that any original operation rolled out in a study produces the intended psychological state in a direct replication project (Schwarz, N., Strack, 2014). Currently speaking, the manipulated variable in question is the claim type (whether exposed to the recyclable feature, or not). Dependent variables are millennials responses, namely, WTP and PI. The moderator variable, FE, as well as another control variable, the social media platform preferred, were measured on scale basis.

It was previously asserted that respondents were questioned whether they were familiar with recyclability in its most common definition. Here, it must be exemplified that a negative response to this question was in any case erroneous for the sake of the study. This binary question was set solely with a view to testing the acquaintance of the target segment with the feature displayed in the advertisement. Building upon this allegation, descriptive statistics showed that 98% of interviewees were familiar with the term. The latter thus didn't trigger any suspicion of bias, all the more as the assignment to one or the other scenario in the experiment remained completely random (Malhotra & Birks, 2007).

Ultimately, the questionnaire questioned demographics. Variables asked encompassed gender, nationality, income, education and occupation. To attest that all questions were effectively responded, throughout all the questionnaire, the criterion "Force responses" was put in place so that any millennial could pass to another question while having effectively responded to the previous one, apart from questions where it was not possible (when encompassing descriptive text). At the very end of the questionnaire, any respondent had to insert one's email address to participate in the lottery (the likelihood of being picked out and winning the amount of 40 euros). The monetary incentive was indeed judged as having a high impact when administered within the given questionnaire to trigger completion (Malhotra & Birks, 2007).

4.5 Scale measures

Putting in place the required measurements of scale went through the examination of theoretical content. When it comes to the first dependent variable using scaling, **Purchase Intention** (PI), a scale with solely three items was utilized, depicted as an accurate and smooth measurement criterion for further analyses (Putrevu & Lord, 1994). The suggested seven category rating scale

(Likert scale) was consequently favored following the "agreement" type (*strongly agree* VS *strongly disagree* dots).

Moreover, the second dependent variable, **Willingness to Pay** (WTP) was gaged through a continuous rating scale where interviewees merely indicated the amount in question. The bracket was defined based upon outputs withdrawn from the pretest, where millennials indicated that 50 euros would be the maximum amount they were likely to be charged for t-shirts. Also, since the analysis is neither based on contingent valuation nor conjoint analysis, there's no need to wonder about hypothetical bias of the dependent variable in question that could incur within the analysis (Backhaus et al., 2005).

The subsequent proxy deals with **Frequency exposure** (FE). Items were freshly assessed with a standard question layout with six possible options and one single answer possible. Answers ranged from "never" until "more than twenty times a day". Frequency Exposure was carefully placed after **Purchase Intention** and **Willingness to pay** so as to not to synthetically intensify skeptical thoughts nor provoke sequence effects in interviewees' minds.

Presented in columns, however risky it might appear, compared to a straight line of answers (Dillman & Smyth, 2007), respondents were presented in ascending order following outputs from the pretest, and establishing a chronological order of answers justifying accuracy and rigorousness for the recipient (Dillman & Smyth, 2007). Unlike what would be expected from a frequency rating scale type, figures in bracket choices prevailed, and this alternative did not introduce any unfairness onto the scope of analysis (Tharenou et al., 2007).

In order to control for **Preferred social media platform** (PP) used by millennials, a matrix grid was used within a ranking list. The preferred media platform corresponded with a pre-defined choice of six social media elected by millennials (Facebook, Twitter, Instagram, YouTube, Pinterest and Snapchat). By presenting only six social networks to rank upon preference, the interest doubled: it allowed interviewees not only to tell apart relative importance towards each platform, but seemingly keep the list short not to discourage responses (Tharenou et al., 2007). To overcome respondent's potential inattentiveness or any other bias when replying, the discrete variables were willingly randomized (Dillman & Smyth, 2007). Adding another dependent variable in the model enabled to have greater control over it when research was operated and account accordingly for both internal and external validities (Street, 1995).

Table A : Constructs and Scales Used in Data Collection

Constructs	Scale utilized	Items	Literature support
Purchase Intention	7-point Likert	3	Putrevu & Lord, 1994
Willingness to pay	Continuous	1	Backhaus et al., 2005
Frequency Exposure	Standard questions	6	Tharenou et al., 2007

4.6 Data Analysis

When analyzing data, IBM SPSS version 26 was used as the statistical software to process quantitative inputs. The dependent variables, **WTP** and **PI** between millennials were scrutinized by the usage of independent sample t-tests. With one independent variable manipulated and two conditions for the IV, with independent samples, an independent sample t-test turned out to be the most appropriate quantitative analysis (Scherbaum & Shockley, 2015). To quantify which effect the moderating variable **Frequency Exposure** (FE) could have on the relationship between the manipulated independent variable and the dependent ones, the PROCESS macro 3.5 came into play (Hayes, 2018).

5 Results

The following section epitomizes the outcomes drawn from the above-mentioned component. In a first instance, the sample under study will be examined as far as demographics are concerned. The latter will be closely followed by the hypotheses in question tested, and a brief summary of the statistical model displayed. Chapter five will pave the way to supplementary interpretations.

5.1 Sample characterization

Out of 185 participants, 33 participants were screened at the beginning and directed towards the end of the questionnaire, as whether belonging to one bracket age lower or higher, since the scope was placed under millennials (people born strictly between 1982 and 2000), thus unwanted for the study. Consequently, only 152 participants' data were effectively processed. The statistical outputs related to demographics are displayed below. Probably, the sole outlier relies on a single individual who did not mention nationality. Coincidentally, there were equally the same number of males as of females, which does not have to be mistaken with the equally randomized conditioning of scenarios set on Qualtrics (respondents were equally assigned to one or another scenario). Eventually, to account for any potential dependency between nominal variables from demographics, and taking into account the effect size, various nonparametric Chi-square tests were rolled out by ticking Phi and Cramer's V assumptions. First, categorical variables Gender and status were tested. No violation interfered, as only 2 cells had an expected count less than 5 (16,7% < 20%, the critical value). Having set a 5% level of significance, the results demonstrated significant association, emphasizing that gender is dependent from status ($X2(2) = 11,306$, $p = 0,046$). Unsimilarly, once verified, gender and level of education turned out to be independent ($X2(2) = 0,721$, $p= 0,868$). When it comes to income, lastly, gender seems slightly correlated to income, as the sample is significantly different, attested by the related effect size ($X2(2) = 3,230$, $p = 0,520$). In order to further evaluate normality distribution within the experiment, the sample went through the Smirnov and Shapiro-Wilk tests. Results underlined that the sample was not normally distributed, as with a level of significance set at 5%: ($KS = 0,347$, $p = 0,0000$) and ($SW = 0,636$, $p = 0,0000$).

5.2 Manipulation check

Performing an experimental design requires to verify beforehand the conditions under which the experiment was undergone and checking applicable conditions besides the variables of interest. The major aspect to take into account was the variability of perception of the groups exposed to the advertisements in question. Achievement of manipulation was gauged on a 7-point Likert scale. An independent sample t-test was run to notice if perceptions varied significantly between ads. The items means demonstrated that the ad with the recyclable feature was perceived more (M = 2,45; SD= 1,60) than the ad without the recyclable feature (M= 0,60; SD = 2,35; t (152) = 3,253, p = 0,003<0,05). As a result, outcomes drawn from the manipulation check revealed that the manipulation was undertaken in a rewarding way.

5.3 Measuring Reliability

Cronbach Alpha's criterion verifies the reliability of the Likert's scale, which was utilized to gage **PI**, and encompassed three items, namely "likelihood of purchasing", "purchased if needed" and "try". It was beforehand paramount to utilize the criterion to verify the span of the DV under study, which encompassed those three objects. Even with an item deleted, the results would have remained stable (Cronbach's alpha = 0,887, 0,919, 0,913). This outcome clarified the accuracy of the choice of the scale, as the overall alpha reached 0,936. As a rule of thumb, a figure of 0,6 - 0,7 is believed as acceptable, thus, there was no doubt that the scale was perfectly suited for the evaluation.

5.4 Testing of hypotheses

5.4.1 H1: Effect of the type of claim on Millennials' responses (PI and WTP)

5.4.1.1 H1a: Millennials will have higher purchase intentions (PI) for products claimed as recyclable vs. products with the absence of the claim.

In this part, the independent t-test appeared to be the most suitable test to carry out inferences. It was assumed all data followed a normal distribution rule, thus justifying any non-parametric test to be accordingly discarded. While coding for the results, the following variables were tested between the control and treated group: "likelihood of purchasing", "purchasing if needed" and "trying definitely".

Concerning in the first instance “likelihood of purchasing”, the control group reported (M = 4,74, SD = 1,844). As for the treated group, the following outcomes came to light (M = 3,83, SD = 1,937). Levene’s test demonstrating that distribution “in shape” was equal between the treated and the control group for “likelihood of purchasing” resulted in (F = 0,316, p = 0,575). Based upon the level of significance commonly picked out (0,05), the null hypothesis cannot be removed. Therefore, it has been assumed that the variances were approximately equal. Additionally, the t-test indicated: (t (152) = 2,964, p= 0,004). The test was significant: the two groups differed on that precise intention point.

Dealing with the second one, shedding light on “purchasing if needed”, Levene’s test still pointed out that variances could be supposed to be equal: (F = 0,008, p = 0,929). The t-test (t (152) = 3,035, p = 0,003) emphasized disparity between assigned participants. Eventually, the “try” discrete proxy topped of presumed equality of variances (F = 1,135, p = 0,288). T-test again confirmed heterogeneity of groups (t (152) = 3,599, p = 0,000). Building upon those results and taking into account a criterion of 95% confidence interval, the null hypothesis cannot be validated (p<0,05). The test is therefore significant, as there is a major difference between observations when it comes to Purchase Intention as a whole. So, the H1a is supported.

5.4.1.2 H1b: Millennials will have higher Willingness to Pay (WTP) for products claimed as recyclable vs products with the absence of claim

As the type of claim represented the sole independent (and therefore manipulated) variable potentially affecting the type of response, it was decided to run again an independent sample t-test, as proved to account for the most accurate tool to gage two different groups from the same sample with a single predictor. Indicated through compared means, the **WTP** for millennials exposed to the recyclable claim is slightly higher (M= 18,85; SD= 8,64) than for the group not exposed to the claim in question (M= 16,54; SD= 11,39). The t-test still underlined that there were no significant statistical differences between the two groups (t (152) = -1,41, p = 0,160>0,05). Therefore, the null hypothesis was confirmed and concluded that WTP between the two groups of millennials exposed to differentiated claims were statistically similar (with the criterion of a 95% confidence interval). So, the H1b cannot be supported.

5.4.2 H2: The moderating effect of Frequency Exposure

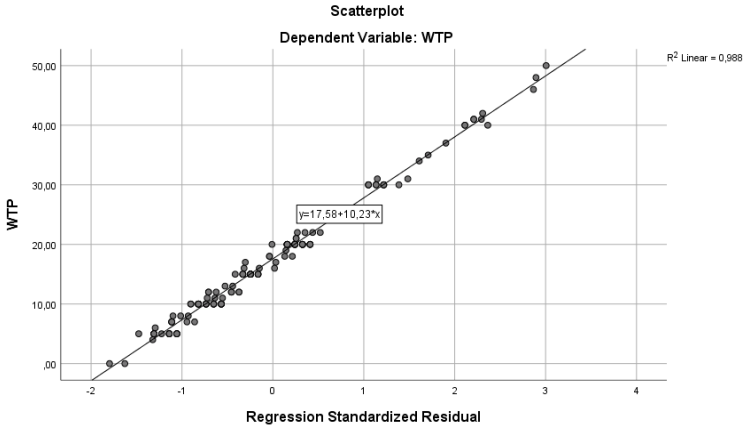
5.4.2.1 Frequency exposure on social media (FE) will moderate the relationship between advertising claims and millennials responses. Hence:

H2a: Social media Frequency Exposure (FE) will moderate the relationship between the type of advertising and purchase intention.
H2b: Social media Frequency Exposure will moderate the relationship between the type of advertisement and willingness to pay.

Building upon the results withdrawn from H1, H1b could not be supported. Thereupon, solely this hypothesis was retained within the model to assess the moderating effect FE could have on the relationship between the type of advertisement and WTP, as results demonstrated homogeneity between groups. H2a was not conducted.

Having a third variable coming into play in the model requires to prudently check linear regressions assumptions. To that purpose, pre-verifications were undergone to made sure that the dependent variables were measured on a continuous scale, likewise observations, that had to be independent. On another note, data must show homoscedasticity. There were similarly no significant outliers in the sample. Obviously, a regression model assumed that a correlation had to exist, currently speaking, between the assigned claim, **PI** and **FE**. Together with the previous assumptions, data must finally not depict a multicollinearity situation.
The statistical model to account for a moderating variable was specifically designed in a PROCESS model 3.5 rolled out by Andrew Hayes (2007) and used for the sole purpose of the moderated interaction.
A control variable, or covariate, would be a discrete variable questioned within a questionnaire, that validates heterogeneity of groups towards **PP**. This would enable the proxy in question to be included alongside with the moderating variable **FE**. Building upon this postulate, it was noted that there was still no discrepancy between the two groups of millennials when showing preference towards PP, as all platforms (Facebook, Twitter, Instagram, Snapchat, YouTube, Pinterest) were equally graded among the groups (all p-values > 0,05, with Levene's equality of variances verified). Conclusively, **PP** as a control variable was not picked out.

Table A: Verifying homoscedasticity between WTP and FE



To ensure consistency, homoscedasticity was verified, since **WTP** should be influenced by **FE**. Drawn from the fit line from the graph, it was observed that the amount of "error", i.e., the space between the dots and the line remained consistent. In a word, successive dots did not bow outwards, and homoscedasticity was therefore validated.

Concurrently, the PROCESS model was run and presented the resulting outputs. Beforehand, the box was ticked to get the generated codes for the moderating interaction, appearing as INT_1 in the model summary, as well as verifying that the statistical model number was the corrected one (=1). Conditioning values box was likewise set following normal distribution rules. The model explained 16,58% of the relationship (R2), nonetheless, as the p-value equals 0,2467, the null hypothesis remained. In details, the manipulated independent variable "Type of claim", was not significant (t (152) = 0,3518, p=0,7255). On the same note, **FE** was no indicative (t (152) = - 0,6138, p = 0,5403). Digging deeper into the outcome, the interaction of **FE** on the type of claim and WTP was invalid (INT_1 = 0,1219; p= 0,9031). Within a confidence level of 95%, H2b cannot be validated. Conclusively, **FE** did not play an obvious moderating effect on the relationship between the type of claim and **WTP**.

6 Conclusions

The subsequent chapter will focus on the outcomes withdrawn from the experiment and respond to the research questions previously stated. Additionally, the scope of analysis will be enlarged to potential utilization, whether it comes to the spectrum of academics. Eventually, an insight will be provided on any potential pitfall that this analysis could represent for supplementary elaborations.

The primary aim of this paper was to examine whether the exposure to a specific claim, containing a green feature, or not, could provoke in consumers 'responses. The study was carried out by picking out a designated consumer group, the millennials, for whom answers provided were quantitatively recorded. The dependent variables **WTP** and **PI** were accordingly tested to verify the treatment effect on the treated millennial group, with the supplementary inspection of the moderating role played by **Frequency Exposure** on this very same bond. To account for this approach, it was decided to build an experiment with an online questionnaire, gathering 152 millennials responses. Manipulation took effect through the sole independent variable of the model, meanwhile participants were randomly assigned to one claim scenario or the other. The dependent variables (**WTP** and **PI**) that came into play were carefully picked out alongside with proper scaling measures, namely continuous or rating, in that situation.

> **RQ 1:** Are there differences in consumer responses (purchase intention & willingness to pay) towards green-related claim vs. claim not using specific, green-related content on social media?

The very first element to bring to light is the fact that recipients were clearly aware of the notion of recyclability when questioned about it (sustained by 98% of positive replies). Building upon the outcomes provided by the independent t-tests, it obviously shed light on the fact that, depending on the advertisement to which they were exposed, millennials responded in a dichotomous fashion. From the standpoint of the DV **PI**, answers highlighted a notable discrepancy between the controlled and the treated group.

From the perspective of the other DV **WTP**, in that case, millennials showed analogous replies, however the scenario might be. However surprising this might appear, millennials showed differentiated replies for those close dependent variables. Empirically speaking, this differs from the observation carried out on the sector of "green" products where products are likely to

be charged higher, due to qualitative aspects, and therefore constitutes the major barrier towards adoption, once priced (Gleim et al., 2013). This oppositely gainsays experiments testing qualitative, and more specifically visual-appeal based items, for instance, when dealing with the eco-label perception and influence on the response directed to a convenience sample (Suki et al., 2013). Within the experiment, consignees found the advertising claim with a sole sentence depicting the recyclable feature of the good; the risk factor may play a part in millennials' perceptions and may account for the analogous replies towards **WTP** (Lumpkin et al., 1985). At this stage of the analysis, it may be questioned whether there would have been extra psychological traits that could have explained the analogy in **WTP** responses, such as the perception of artsy content (Taylor, 2018).

> **RQ 2:** To what extent Frequency Exposure for social media millennials affects the relationship between the type of claim and purchase intentions or willingness to pay?

The moderating effect of **FE** did not prove to interfere significantly in the relationship between the type of claim and millennials' responses. The moderator was based upon literature and various experiments where the proxy was considered having an impact on future purchase intentions. However, regarding this last finding, it may be envisaged to reconsider the role effect of **FE**, that could be tested as a mediator for instance. The non-significance of the variable may be potentially understood under the scope of the type of media used, and the credibility millennials show towards the channel of communication itself. As a matter of fact, millennials demonstrated a greater mistrust towards new generation media than from traditional media channels (Jordaan et al., 2011).

On top of that, print media results showed substantial credibility in comparison to broadcast media (Jordaan et al., 2011). Presumably, it can be admitted that the way millennials perceived the advertising claim in the experiment belonged to the category of broadcast media, and therefore had an unassessed, but paramount impact on the bond under study.

6.1 Academic and managerial contribution

From an academic perspective, this study may benefit in consumer behavior analysis constructs. Understanding consumer behavior evolution is inherent to marketing that evolves, and needs to be adjusted accordingly; what is called evolutionary psychology in the consumer behavior field (Saad & Gill, 2000). Another key aspect of research undertaken builds upon psychological

studies, intertwining marketing and psychology, thus having a direct impact in the psychology field. As consumers responded similarly to an advertised product with differentiated characteristics, as depicted in the study, it may indicate that behavior is not linked to how a product is perceived, but rather which objective and subjective knowledge consumers hold in mind, which ensuing pro-ecological behaviors they stand for, and deducted from that, which related attitudes they defend (Pam Scholder, 1994).

But seizing purchase rationales are quite unclear as demonstrated by (Brown et al., 2007). Indeed, millennials act as follows : in a "conceptual" way, first, and follow "conceptual" factors then, when it comes to purchase behavior, especially towards green-related products (Brown et al., 2007). It is enhanced by extra psychological reasons that lay behind those choices. For instance, it has been proved that peers, surrounding millennials, act as role models in shaping not only learnings, but likewise preferences for the significance of green consumption (Huffman, C., Ratneshwar, S., Mick, 2000). They undoubtedly represent reliable sources of information that millennials question before buying. From a more philosophical approach, consumption plays a central part as a "phenomenon of human life and society" (Huffman, C., Ratneshwar, S., Mick, 2000). Academics therefore need to understand that placing millennials under the scope of study is making a tight bond between crossed and complementary dynamics, somehow uneasy to apprehend.

From a managerial perspective now, the millennial generation is widespread, particularly among marketers and employers (Hoover, 2009). Firms are now willing to tap into a new market segment that is solely composed of young consumers (Nowak et al., 2006). When it comes to branding for instance, features such as brand affiliation and salience may not be the only drivers to trigger purchases for the group in question. Consequently, millennials seem to favor product characteristics. This output was clearly revealed through a descriptive study conducted in the US (Lu et al., 2013). In that study, researchers questioned millennials about the product characteristics they were looking for when purchasing green-related products. Attributes such as "recyclability", "biodegradable" and "positive health effects" demonstrated the strongest correlation (Lu et al., 2013). Investigations pointed out also that millennials purchase intention and eco-friendly attributes were two correlated variables (Lu et al., 2013).

On a more general note, it must be declared that millennials should be investigated further. Not only, millennials studies are scarce and tackle very specific discussions (e.g., Smith, 2010; Tanyel, Stuart and Griffin, 2013; Chang and Tung 2016; Knoll, et al., 2017) but also this

category lags in having a distinctive and prominent place within so-qualified top journals of academic research when it comes to advertisement (Taylor, 2018). This is the trap in which this research strived for the best in predefining and selecting accurate constructs to sequence the paper, so as to not solely select material produced in the popular press or on the websites of media research companies (Nielsen, Ace Matrix).

6.2 Limitations and future research

The very first impediment that can be put forward lies in the choice of the variables picked out to roll out the experiment. As a matter of fact, if the scope is placed under current literature related to proxy selection for experiments, there is a significant gap to account for between the dependent variables utilized in the questionnaire and what actually happens in real life. Indeed, a customer may express to a certain degree any understandable intentions and willingness, still this is clearly not an actual purchase behavior (Morwitz V, 1997). Similarly, the random allocation to one specific scenario of the experiment is likewise very unlikely to be undergone in real life situations, and consequently may introduce a questionable aspect of the offset of studies versus what is happening for real. Turning now to the respondents themselves, despite the setting of randomization both for the scenarios and for the questions (so that they do not read the answers in a systematic order), some respondents may be eager to respond to what they would like to respond VS what they respond to. Although biases were carefully checked, there lies a doubt in the way answers could have been biased, and thus impeding the sake of the analysis. To remedy this situation, any future academic could potentially test whether preferences about hypothetical choices measured in a survey experiment are driven by the same structural determinants of the actual choices made in the real world (Hainmueller et al., 2015). This could be undertaken through vignette and conjoint analyses, as being widely used to elicit stated preferences and study how humans make multidimensional choices (Hainmueller et al., 2015). This pair conjoint analysis that would assess two millennials' behaviors would shed light (either positively or negatively) on the behavioral benchmark that separates a representative sample of the segment, from what millennials would actually do in real life (Hainmueller et al., 2015).

Putting a focal point on the choice of the independent variable, that was here the "recyclable" criterion, extra proxies may have been selected for the process. Indeed, research undertaken in the field of green products pointed out preeminent constructs. For instance, millennials "purchase intentions", and "eco-friendly" attributes are two correlated variables (Lu et al.,

2013). If this turns out to be true, one could easily formulate a hypothesis, for instance that "eco-friendly" attributes *provoke* "purchase intentions". Mathematically speaking, this could take the shape of a simple linear regression, where "eco-friendly" would elicit **PI,** or on the contrary, refrain consumers from buying. If any scholar would stick to those two variables, there would be an omitted variables bias, but the latter would depend upon the reach of the analysis in question (Humpage, 2000).

Despite that, attributes such as "biodegradable", "positive health effect" are deemed strengthened correlations (Lu et al., 2013). Still, there shouldn't be a need to emphasize solely on those two product attributes, since researchers observed that characteristics including convenience, availability, price, quality and performance are still paramount criteria in the intent of purchasing green-related products (Ginsberg & Bloom, 2004). On another aspect, a potential pitfall that may be highlighted throughout this analysis is the unwillingness to advertise a branded product. The sole category of t-shirts was merely privileged to keep the analysis quite simplistic and speak to the largest possible audience among millennials. Nonetheless, the latter have a greater tendency to identify brands rather than product category exclusively (Rahman et al., 2020). To extend reasoning, upcoming investigations should dig deeper on how millennials would have perceived a differentiated advertisement from a popular brand with either the same or different dependent variables.

Still covering the topic of perception, ads with artsy creative and high visual impact often score with millennials (Taylor, 2018). Ace Metrix's studies of a large sample of ads document that millennials are more impressed by stunning visuals and "highbrow" artistic advertising than other groups (Ace Metrix2014). Thus, very high-quality creative with movie quality visuals is often a good start in scoring with the group via television advertising (Taylor, 2018). Still, this remark only applies to content broadcast on TV, and one would expect this assertion to be valid on social media.

Previously articulated studies should now be concerned that greening a product firm offering passes through the articulation of primary green attributes of their products: to showcase a product, it may be shrewd to focus on the specific bonds among these product characteristics and the current firm offer. On top of that, this can pave the way on how to overcome transitioning non-purchasers to purchasers of green products, as far as marketing is concerned (Geap et al., 2018).

Appendix

A. Questionnaire (English version)

Dear all,

This short survey is a necessary part of my dissertation to get my master's degree from Católica Lisbon. Your participation is paramount and contributes to its achievement.

I therefore kindly ask you to read thoroughly the questions and answer the questions as thoughtfully as possible.
Any single piece of datum processed will remain strictly confidential, and will serve for academic purposes solely.

Many thanks in advance for your participation.

Valentin Baron.

[page break]

Screener (S)

Before we begin, we would like to make sure you qualify for our study. Please select your bracket year of birth:

[ ] Before 1982 (1981 included)

[ ] Between 1982 and 1999

[ ] After 1999 (1999 excluded)

Condition: if *1a* and *1c* are selected no screen out to demographics

[page break]

Knowledge block (KB)

First of all, we would like to make sure you are familiar with the lexicon surrounding sustainable practices from an individual standpoint.

Do you know what recyclability refers to?

[ ] Yes

[ ] No

Condition: *Yes,* is selected no screen-out to main survey (Q)

Main survey (Q)

Q1: [*Random assignment]* Experiment

Now, imagine the situation in which you are surfing on your mobile phone or on any other electronic device (laptop, tablet, etc…), specifically on social media platforms (can be Facebook, Instagram, etc…). While surfing, suddenly, an advertising poster pops in (or follows your feed).
Press the arrow when you're ready to see the advertisement in question.

[page break]

Q1b : manipulation check :

A recyclable item is, by definition, a product that has future use, and not intended to be thrown away after usage. To what extent do you perceive a T-shirt as belonging to such a category ?

(1= Absolutely not/ 7 = Absolutely)

[page break]

Q2 : purchase intention (randomized)

Based on the advertisement that was previously displayed, to what extent would you agree with the assertions below (NOT taking into account the color of the item)? *(7-point Likert-scale (strongly agree/strongly disagree))*.

Q2a: It is very likely that I will buy this product

Q2b: I will purchase this product the next time I need it

Q2c: I will definitely try this product

[page break]

Q3: willingness to pay

Still based on the previous advertisement, how much would you be willing to pay for the item in question? Please indicate the amount in €: 0€ …… 50€ *(continuous scale via ruler)*

[page break]

Q4: frequency exposure

How often do you reckon surfing on social media daily?

[ ] never

[ ] at least once

[ ] from twice to five times a day

[ ] from six to ten times a day

[ ] from eleven to twenty times a day

[ ] more than twenty-one times a day

Condition: *4a* is selected => no screen out to demographics

[page break]

Q5: preferred media platform (randomized)

Please rank, according to you, the following social media platforms in terms of preference of visits per day *(rank order, 1= most preferred and 6 = less preferred)*

Facebook [ ] You Tube [ ] Twitter [ ] Snapchat [ ] Instagram [ ] Pinterest [ ]

[page break]

Demographics (D):

Eventually, we would like to process demographic information. As previously mentioned, every piece of information provided will be analyzed for the purpose of the analysis solely.

D1 : Please indicate your gender [ ] Female [ ] Male

D2 : Please indicate your current status

[ ] Bachelor student [ ] Master student [ ] Ph.D. [ ] Employed [ ] Self-employed [ ] Unemployed [ ] Other

D3: what is your highest level of education?

High School (A-level or equivalent) [ ] Bachelor's degree [ ] Master's degree [ ] PhD [ ]

D4: Please indicate your monthly net income after having paid all fixed expenses

500€ or lower [ ] 501€-1000€ [ ] 1001-1500€ [ ] 1501-2000€ [ ] more than 2000€

D5: What is your nationality?

[ ] Portuguese [ ] Italian [ ] French [ ] German [ ] Spanish [ ] Belgian [ ] Other

Thank you for having taken the time to respond to this questionnaire. Your response, that has been dully recorded, will be soon analyzed for the purpose of the study. Should further question arise, do not hesitate to reach me out at the following email address : valentin.baron.bba@edhec.com

If you are willing to win 50 euros at our responsible lottery, feel free to mention your email in the following blank space.

B. Process SPSS output

Run MATRIX procedure:

***************** PROCESS Procedure for SPSS Version 3.5 *****************

Written by Andrew F. Hayes, Ph.D. www.afhayes.com
Documentation available in Hayes (2018). www.guilford.com/p/hayes3

****
Model : 1
Y : WTP
X : Group
W : FE

Sample
Size: 152

****
OUTCOME VARIABLE:
WTP

Model Summary

R	R-sq	MSE	F	df1	df2	p
,1658	,0275	104,4588	1,3950	3,0000	148,0000	,2467

Model

	coeff	se	t	p	LLCI	ULCI
constant	18,3772	7,9410	2,3142	,0220	2,6847	34,0697
Group	1,9219	5,4637	,3518	,7255	-8,8750	12,7188
FE	-1,1852	1,9309	-,6138	,5403	-5,0010	2,6306
Int_1	,1599	1,3112	,1219	,9031	-2,4312	2,7509

Product terms key:
Int_1 : Group x FE

Test(s) of highest order unconditional interaction(s):

	R2-chng	F	df1	df2	p
X*W	,0001	,0149	1,0000	148,0000	,9031

Focal predict: Group (X)
Mod var: FE (W)

Data for visualizing the conditional effect of the focal predictor:
Paste text below into a SPSS syntax window and execute to produce plot.

```
DATA LIST FREE/
  Group     FE       WTP      .
BEGIN DATA.
    1,0000    2,6325   17,5998
```

```
    2,0000    2,6325   19,9425
    1,0000    3,9408   16,2583
    2,0000    3,9408   18,8101
    1,0000    5,2491   14,9167
    2,0000    5,2491   17,6777
END DATA.
GRAPH/SCATTERPLOT=
 FE      WITH    WTP     BY      Group    .

********************** ANALYSIS NOTES AND ERRORS ************************

Level of confidence for all confidence intervals in output:
  95,0000

------ END MATRIX -----
```

List of references

Ajzen, I. (2012). The theory of planned behavior. *Handbook of Theories of Social Psychology: Volume 1*, *211*, 438–459. https://doi.org/10.4135/9781446249215.n22

Alhidari, A., Iyer, P., & Paswan, A. (2015). Personal level antecedents of eWOM and purchase intention, on social networking sites. *Journal of Customer Behaviour*, *14*(2), 107–125. https://doi.org/10.1362/147539215x14373846805707

Allsop, D. T., Bassett, B. R., & Hoskins, J. A. (2007). Word-of-mouth research: Principles and applications. *Journal of Advertising Research*, *47*(4), 398–411. https://doi.org/10.2501/S0021849907070419

Applegate, E. (2000). Advertising in the United States: past, present, future. *Journalism Studies*, *1*(2), 285–302. https://doi.org/10.1080/14616700050028262

Backhaus, K., Wilken, R., Voeth, M., Sichtmann, C., Voeth, M., Wilken, R., Backhaus, K., Wilken, R., Voeth, M., & Sichtmann, C. (2005). An empirical comparison of methods to measure willingness to pay by examining the hypothetical bias. *International Journal of Market Research*, *47*(5), 543–562. http://www.scopus.com/inward/record.url?eid=2-s2.0-25444498307&partnerID=tZOtx3y1

Barro, R.J., Ursua, J.F. &Weng, J. (2020). The Coronavirus and the Great Influenza Epidemic - Lessons from the "Spanish Flu" for the Coronavirus's Potential Effects on Mortality and Economic Activity (2020). CESifo Working Paper No. 8166.�. *NBER Working Paper Series*, *26866*, 1–27. http://www.nber.org/papers/w26866%0ANATIONAL

BELCH, G. E. (1981). An Examination of Comparative and Noncomparative Television Commercials: The Effects of Claim Variation and Repetition on Cognitive Response and Message Acceptance. *Journal of Marketing Research*, *18*(3), 333–351. https://doi.org/10.2307/3150974

Bell, S., Davis, B., Javaid, A., & Essadiqi, E. (2006). *Final Report on Energy Efficiency and Energy Savings in Recycling*. *March*. https://doi.org/10.13140/RG.2.2.32269.13280

Bhatia, M., & Jain, A. (2014). Green Marketing: A Study of Consumer Perception and Preferences in India. *Electronic Green Journal*, *1*(36). https://doi.org/10.5070/g313618392

Borchert, D., N. & Strauss, W. H., & Borchert, D. (2000). Millennials rising: The next great generation. In *Review & Expositor* (Vintage Bo, Vol. 97, Issue 3). New York. https://doi.org/10.1177/003463730009700318

Bortinger, M., Cohn, R., Culbertson, J., Hall, M., Lautzenheiser, A., Li, W., Mach, J., Preston, C., Qian, S., Cheema, A., & Kaikati, A. M. (2010). The Effect of Need for Uniqueness on Word of Mouth. *Journal of Marketing Research*, *XLVII*, 553–563. http://www.marketingpower.com/jmrjune10

Breidert, C. ; Hahsler, M. ; Reutterer, T. (2006). A REVIEW OF METHODS FOR MEASURING WILLINGNESS-TO-PAY. *Innovative Marketing*, *2*(4).

Brown, J., Broderick, A. J., & Lee, N. (2007). Word of mouth communication within online communities: Conceptualizing the online social network. *Journal of Interactive Marketing*, *21*(3), 2–20. https://doi.org/10.1002/dir.20082

Carlson, L.; Grove, S.; Kangun, N. (1993). A Content Analysis of Environmental Advertising Claims: A Matrix Method Approach. *Journal of Advertising*, *22*(3), 27–39. https://doi.org/https://doi.org/10.1080/00913367.1993.10673409

Carr, C. T., & Hayes, R. A. (2015). Social Media: Defining, Developing, and Divining. *Atlantic Journal of Communication*, *23*(1), 46–65. https://doi.org/10.1080/15456870.2015.972282

Christopher, Scaff, R. D., Donnelly, B. C., Scaff, R. D., Christopher, & Scaff, R. D. (2013). Who are the Millennial shoppers? And what do they really want? *High Performance Business*, *2*, 1–8.

Curran, J., & Blackburn, R. (2011). Researching the Small Enterprise. In *Researching the Small Enterprise*. Sage. https://doi.org/10.4135/9781849209847

Dagher, G. K., & Itani, O. (2014). Factors influencing green purchasing behaviour: Empirical evidence from the Lebanese consumers. *Journal of Consumer Behaviour*, *13*(3), 188–195. https://doi.org/10.1002/cb.1482

Danesi, M. (2015). Advertising Discourse. *The International Encyclopedia of Language and Social Interaction*, 1–10. https://doi.org/10.1002/9781118611463.wbielsi137

Dellarocas, C. (2003). The digitization of word of mouth: Promise and challenges of online feedback mechanisms. *Management Science*, *49*(10), 1407–1424. https://doi.org/10.1287/mnsc.49.10.1407.17308

Diamantopoulos, A., Schlegelmilch, B. B., Sinkovics, R. R., & Bohlen, G. M. (2003). Can socio-demographics still play a role in profiling green consumers? A review of the evidence and an empirical investigation. In *Journal of Business Research* (Vol. 56, Issue 6, pp. 465–480). Elsevier Inc. https://doi.org/10.1016/S0148-2963(01)00241-7

Dillman, D. A., & Smyth, J. D. (2007). Design Effects in the Transition to Web-Based Surveys. *American Journal of Preventive Medicine*, *32*(5 SUPPL.). https://doi.org/10.1016/j.amepre.2007.03.008

Dutt, V. P. P. (2011). Crisis and Consumption smoothing. *Marketing Science*, *30*(3), 491–512.

Duygan, B. (2004). Aggregate Shocks, Idiosyncratic Risk, and Durable Goods Purchases: Evidence from Turkey's 1994 Financial Crisis∗. *European University Institute*.

Emmanouilides, C. J., & Davies, R. B. (2006). Modelling and estimation of social interaction effects in new product diffusion. *European Journal of Operational Research*, *177*(2), 1253–1274. https://doi.org/10.1016/j.ejor.2005.11.021

Erchul, W. P., & Sheridan, S. M. (2014). Handbook of research in school consultation, Second edition. In Taylor and Francis Group (Ed.), *Handbook of Research in School Consultation, Second Edition*. Psychology Press. https://doi.org/10.4324/9780203133170

Fernandes, N. (2020). Economic effects of coronavirus outbreak (COVID-19) on the world economy. *SSRN Electronic Journal*. https://doi.org/10.2139/ssrn.3557504

Geap, C. L., Bedong, J., Bedong, J., Bathmanathan, V., & Nasonal, U. T. (2018). *Green Marketing Mix on Purchase of Green Products*. *4*(12), 1–11.

Ginsberg, J., & Bloom, P. (2004). Choosing the Right Green Marketing Strategy. *MIT Sloan Management Review*, 79–84.

Gleim, M. R., Smith, J. S., Andrews, D., & Cronin, J. J. (2013). Against the Green: A Multi-method Examination of the Barriers to Green Consumption. *Journal of Retailing*, *89*(1), 44–61. https://doi.org/10.1016/j.jretai.2012.10.001

Goldsmith, R. E., & Horowitz, D. (2006). Measuring Motivations for Online Opinion Seeking. *Journal of Interactive Advertising*, *6*(2), 2–14.

https://doi.org/10.1080/15252019.2006.10722114

Grewal, D., Krishnan, R., Baker, J., & Borin, N. (1998). The effect of store name, brand name and price discounts on consumers' evaluations and purchase intentions. *Journal of Retailing*, *74*(3), 331–352. https://doi.org/10.1016/S0022-4359(99)80099-2

Grønhøj, A., & Thøgersen, J. (2009). Like father, like son? Intergenerational transmission of values, attitudes, and behaviours in the environmental domain. *Journal of Environmental Psychology*, *29*(4), 414–421. https://doi.org/10.1016/j.jenvp.2009.05.002

Gurău, C., & Ranchhod, A. (2005). International green marketing: A comparative study of British and Romanian firms. *International Marketing Review*, *22*(5), 547–561. https://doi.org/10.1108/02651330510624381

Hainmueller, J., Hangartner, D., & Yamamoto, T. (2015). Validating vignette and conjoint survey experiments against real-world behavior. *Proceedings of the National Academy of Sciences of the United States of America*, *112*(8), 2395–2400. https://doi.org/10.1073/pnas.1416587112

Hayes, A. F. (2018). Introduction to Mediation , Moderation , and Conditional Process Analysis Findings In addition …. In *the Guilford Press* (Issue March).

Hoover, B. E. (2009). The Millennial Muddle : How Stereotyping Students Became an Industry - Student Affairs ... Page 1 of 18 Student Affairs The Millennial Muddle : How Stereotyping Students Became an Industry - Student Affairs ... Page 2 of 18. *The Chronicle of Higher Education*, 1–18.

Huffman, C., Ratneshwar, S., Mick, D. (2000). *The Why of Consumption : contemporary perspectives on consumer motives, goals and desires*. Routledge.

Humpage, S. (2000). An introduction to regression analysis. *Sensors (Peterborough, NH)*, *17*(9), 68–74. https://doi.org/10.1002/9781118267912.ch6

Hyllegard, K. H., Ogle, J. P., & Yan, R. N. (2014). College students' responses to prosocial marketing claims on apparel hang tags. *Journal of Fashion Marketing and Management*, *18*(3), 269–283. https://doi.org/10.1108/JFMM-12-2012-0075

Iyer, E., & Banerjee, B. (1993). Anatomy of green advertising. In *Advances in Consumer Research* (Vol. 20). Association for Consumer Research. http://openaccess.city.ac.uk/22325/http://openaccess.city.ac.uk/http://acrwebsite.org/volumes/7499/volumes/v20/NA-20

Janoschka, A. (2004). *Web Advertising* (Vol. 131). John Benjamins Publishing Company. https://doi.org/10.1075/pbns.131

Jordaan, Y., Ehlers, L., & Grové, J. (2011). Advertising credibility across media channels: Perceptions of generation Y consumers. *Communicare*, *30*(1), 1–20. http://repository.up.ac.za/handle/2263/16957

Kaifi, B. A., Nafei, W. A., Khanfar, N. M., & Kaifi, M. M. (2012). A Multi-Generational Workforce: Managing and Understanding Millennials. *International Journal of Business and Management*, *7*(24). https://doi.org/10.5539/ijbm.v7n24p88

Keller, E. (2007). Unleashing the power of word of mouth: Creating brand advocacy to drive growth. *Journal of Advertising Research*, *47*(4), 448–452. https://doi.org/10.2501/S0021849907070468

A Reservation-Price Model for Optimal Pricing of Multiattribute Products in, 28 Journal of Marketing Research (1991).

Lu, L., Bock, D., Joseph, M., L; Bock D; Joseph, M. L., Lu, L., Bock, D., Joseph, M., L; Bock D; Joseph, M. L., Lu, L., Bock, D., & Joseph, M. (2013). Green marketing: what the Millennials buy. *Journal of Business Strategy*, *34*(6), 3–10. https://doi.org/10.1108/JBS-05-2013-0036

Lumpkin, J. R., Crawford, J. C., & Kim, G. (1985). Perceived Risk as a Factor in Buying Foreign Clothes. *International Journal of Advertising*, *4*(2), 157–171. https://doi.org/10.1080/02650487.1985.11105058

Malhotra, N., & Birks, D. (2007). *Marketing Research: an Applied Approach*. http://182.160.97.198:8080/xmlui/bitstream/handle/123456789/342/17. Data preparation.pdf?sequence=18

Mangold, W. G., & Faulds, D. J. (2009). Social media: The new hybrid element of the promotion mix. *Business Horizons*, *52*(4), 357–365. https://doi.org/10.1016/j.bushor.2009.03.002

Manrai, L. A., Manrai, A. K., Lascu, D.-N. N., & Ryans, J. K. (1997). How green-claim strength and country disposition affect product evaluation and company image. *Psychology and Marketing*, *14*(5), 511–537. https://doi.org/10.1002/(SICI)1520-6793(199708)14:5<511::AID-MAR5>3.0.CO;2-B

Morwitz V. (1997). It Seems Like Only Yesterday: The Nature and Consequences of Telescoping Errors in Marketing Research. *JOURNAL OF CONSUMER PSYCHOLOGY*, *6*(1), 1–29.

Naderi, I., Van Steenburg, E., & Steenburg, E. Van. (2018). Me first, then the environment: young Millennials as green consumers. *Young Consumers*, *19*(3), 280–295. https://doi.org/10.1108/YC-08-2017-00722

Naidoo, V., & Hollebeek, L. D. (2016). Higher education brand alliances: Investigating consumers' dual-degree purchase intentions. *Journal of Business Research*, *69*(8), 3113–3121. https://doi.org/10.1016/j.jbusres.2016.01.027

Newholm, T., & Shaw, D. (2007). Studying the ethical consumer: a review of research. *Journal of Consumer Behaviour*, *6*(5), 253–270. https://doi.org/10.1002/cb.225

Nowak, L., Thach, L., Olsen, J. E., & L; Thach, L. O. J. N. (2006). Wowing the millennials: creating brand equity in the wine industry. *Journal of Product and Brand Management*, *15*(5), 316–323. https://doi.org/10.1108/10610420610685712

Oliver, M. B., Raney, A. A., Slater, M. D., Appel, M., Hartmann, T., Bartsch, A., Schneider, F. M., Janicke-Bowles, S. H., Krämer, N., Mares, M. L., Vorderer, P., Rieger, D., Dale, K. R., & Das, E. (2018). Self-transcendent Media Experiences: Taking Meaningful Media to a Higher Level. *Journal of Communication*, *68*(2), 380–389. https://doi.org/10.1093/joc/jqx020

Pam Scholder, E. (1994). Do we know what we need to know? Objective and subjective knowledge effects on pro-ecological behaviors. *Journal of Business Research*, *30*(1), 43–52.

Parent, M., Plangger, K., & Bal, A. (2011). The new WTP: Willingness to participate. *Business Horizons*, *54*(3), 219–229. https://doi.org/10.1016/j.bushor.2011.01.003

Perrin, A. (2015). Senior Communications Manager 202.419.4372 www.pewresearch.org RECOMMENDED CITATION: Andrew Perrin. In *Pew Research Center*. www.pewresearch.org/internet

Petty, R. D. (2015). The historic development of modern US advertising regulation. In

Journal of Historical Research in Marketing (Vol. 7, Issue 4, pp. 524–548). Emerald Group Publishing Ltd. https://doi.org/10.1108/JHRM-02-2015-0005

Phau, I., Ong, D., & Phau, D. O. I. (2007). An investigation of the effects of environmental claims in promotional messages for clothing brands. *Marketing Intelligence & Planning*, *25*(7), 772–788. https://doi.org/10.1108/02634500710834214

Putrevu, S., & Lord, K. I. (1994). Comparative and noncomparative advertising: Attitudinal effects under cognitive and affective involvement conditions. *Journal of Advertising*, *23*(2), 77–91. https://doi.org/10.1080/00913367.1994.10673443

Rahman, M. I. M. S., Hossain, M. A., Hoque, M. T., Rushan, M. R. I., & Rahman, M. I. M. S. (2020). Millennials' purchasing behavior toward fashion clothing brands: influence of brand awareness and brand schematicity. *Journal of Fashion Marketing and Management*. https://doi.org/10.1108/JFMM-07-2019-0137

Raines, C. (2002). Managing Millennials. *Marketing Health Services*, *29*(1), 19–21.

Rehman ur, F., Javed, F., Md Yusoff, R., Harun, A., Khan, A., Ismail, F., Yusoff, R. M., Harun, A., Khan, A., & Ismail, F. (2019). WHAT IS ADVERTISING? A SHORT REVIEW OF HISTORICAL DEVELOPMENT. *Academic Research International*, *10*(4). www.savap.org.pk128www.journals.savap.org.pk

Rothenberg, L., & Matthews, D. (2017). Consumer decision making when purchasing eco-friendly apparel. *International Journal of Retail and Distribution Management*, *45*(4), 404–418. https://doi.org/10.1108/IJRDM-06-2016-0099

Saad, G., & Gill, T. (2000). Applications of evolutionary psychology in marketing. *Psychology and Marketing*, *17*(12), 1005–1034. https://doi.org/10.1002/1520-6793(200012)17:12<1005::AID-MAR1>3.0.CO;2-H

Sago, B. (2010). The Influence of Social Media Message Sources on Millennial Generation Consumers. *International Journal of Integrated Marketing Communications*, *2*(2), 7–18.

Saranga, H., Mudambi, R., & Schotter, A. P. (2017). Mastering the make-in-India challenge. *MIT Sloan Management Review*, *58*(4), 59.

Saunders, M., Lewis, P., Thornhill, A., Lewis, S. •, & Thornhill, •. (2009). *Research methods for business students fifth edition*. www.pearsoned.co.uk

Schechter, D., Kaufman, M., & Matthews, S. (2015). Spotlight on Media and Entertainment : Future on Advertsing spend. *LEK Consulting*.

Scherbaum, C., & Shockley, C. (2015). *Analyzing quantitative data for business and management students* (S. Kirsty (ed.); Sage).

Schwarz, N., Strack, F. (2014). Does merely going through the same moves make for a "direct" replication? Concepts, contexts, and operationalizations. *Social Psychology*, *45*(4), 305–306.

Schwarzkopf, S. (2011). The subsiding sizzle of advertising history Methodological and theoretical challenges in the post advertising age. *Journal of Historical Research in Marketing*, *3*(4), 528–548. https://doi.org/10.1108/17557501111183653

Simões, L., & Gouveia, L. B. (2008). Targeting the Millennial Generation. *Jornados de Publicidade e Comunicacao*, *April 2008*. https://www.researchgate.net/publication/228327903

Smith, K. T. (2010). An examination of marketing techniques that influence millennials' perceptions of whether a product is environmentally friendly. *Journal of Strategic*

Marketing, *18*(6), 437–450. https://doi.org/10.1080/0965254X.2010.525249

Street, D. L. (1995). Controlling extraneous variables in experimental research: A research note. *Accounting Education*, *4*(2), 169–188. https://doi.org/10.1080/09639289500000020

Suki, N. M., Mohd Suki, N., & Suki, N. M. (2013). Green products purchases: Structural relationships of consumers' perception of eco-label, eco-brand and environmental advertisement Customer Experience on Customer Care Service of Telecom Industry in Kota Kinabalu, Sabah View project Internal Marketing Vi. *Journal of Sustainability Science and Management*, *8*, 1–10. https://www.researchgate.net/publication/286162935

Tashakkori, A., Johnson, R. B., & Teddlie, C. (2020). *Foundations of mixed methods research: Integrating quantitative and qualitative approaches in the social and behavioral sciences* (SAGE).

Taylor, C. R. (2018). Generational Research and Advertising to Millennials. In *International Journal of Advertising* (Vol. 37, Issue 2, pp. 165–167). https://doi.org/10.1080/02650487.2018.1432102

Tharenou, P., Donohue, R., & Cooper, B. (2007). Management research methods. In *Management Research Methods* (Vol. 9780521694). Cambridge University Press. https://doi.org/10.1017/CBO9780511810527

Trudel, R., & Argo, J. J. (2013). The Effect of Product Size and Form Distortion on Consumer Recycling Behavior. *Journal of Consumer Research*, *40*(4), 632–643. https://doi.org/10.1086/671475

Uddin, S. M. F., & Khan, M. N. (2016). Exploring green purchasing behaviour of young urban consumers. *South Asian Journal of Global Business Research*, *5*(1), 85–103. https://doi.org/10.1108/sajgbr-12-2014-0083

Walsh, G., Shiu, E., Hassan, L. M., Michaelidou, N., & Beatty, S. E. (2011). Emotions, store-environmental cues, store-choice criteria, and marketing outcomes. *Journal of Business Research*, *64*(7), 737–744. https://doi.org/10.1016/j.jbusres.2010.07.008

Weinstein, S., Appel, V., & Weinstein, C. (1980). Brain-activity responses to magazine and television advertising. *Journal of Advertising Research*, *20*(3), 57–63.

Wertenbrock K, S. B. (2002). Measuring Consumer WTP at the point of purchase. *Journal of Marketing Research*, *39*, 228–241.

Wiedmann, K. P., Walsh, G., & Mitchell, V. W. (2001). The Mannmaven: An agent for diffusing market information. *Journal of Marketing Communications*, *7*(4), 195–212. https://doi.org/10.1080/13527260127413

Williams, T. G., & Slama, M. E. (1995). Market mavens' purchase decision evaluative criteria: Implications for brand and store promotion efforts. *Journal of Consumer Marketing*, *12*(3), 4–21. https://doi.org/10.1108/07363769510147218

Wu, W. Y., Lu, H. Y., Wu, Y. Y., & Fu, C. S. (2012). The effects of product scarcity and consumers' need for uniqueness on purchase intention. *International Journal of Consumer Studies*, *36*(3), 263–274. https://doi.org/10.1111/j.1470-6431.2011.01000.x

Xue, F., & Muralidharan, S. (2015). A Green Picture is Worth A Thousand Words?: Effects of Visual and Textual Environmental Appeals in Advertising and the Moderating Role of Product Involvement. *Journal of Promotion Management*, *21*(1), 82–106. https://doi.org/10.1080/10496491.2014.971209

Yadav, D. P., Patel, D. N., & Morkos, B. W. (2018). Development of Product Recyclability Index Utilizing Design for Assembly and Disassembly Principles. *Journal of*

Manufacturing Science and Engineering, Transactions of the ASME, *140*(3), 1–13. https://doi.org/10.1115/1.4038515

Yang, D., Lu, Y., Zhu, W., & Su, C. (2015). Going green: How different advertising appeals impact green consumption behavior. *Journal of Business Research*, *68*(12), 2663–2675. https://doi.org/10.1016/j.jbusres.2015.04.004

Yuchi Zhang Tomas Falk, J. A. X. L. J. F. K., Klein, J. F., Zhang, Y., Falk, T., Aspara, J., Luo, X., & Yuchi Zhang Tomas Falk, J. A. X. L. J. F. K. (2020). Customer journey analyses in digital media: exploring the impact of cross-media exposure on customers' purchase decisions. *Journal of Service Management*. https://doi.org/10.1108/JOSM-11-2018-0360

Zeithaml, V. A. (1988). Consumer Perceptions Of Price, Quality, And Value: A Means-ABI/INFORM Global pg. 2. *Journal of Marketing*, *52*.