



# UNIVERSITY OF GOTHENBURG

## SCHOOL OF BUSINESS, ECONOMICS AND LAW

**Keeping in touch with millennials:**  
How millennial consumers handle the inability to touch  
clothes when shopping online.

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### **Graduate School**

Master Degree Project in Marketing and Consumption | 30.0 hp | GM1160

Subject: Marketing and Consumption

Semester: Spring, 2019

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## **Abstract**

**Purpose** – The purpose of this paper is to research how millennial consumers currently use and perceive available means of overcoming the inability to touch clothing products when shopping online as well as how they view relevant future innovations.

**Design/methodology/approach** – The paper builds on a set of 10 observations and in-depth interviews from millennial consumers in Sweden and adopts an exploratory approach aimed at understanding the relationship between preference for touch and possible means of overcoming the inability to touch clothing products when shopping online.

**Findings and discussions** – The findings highlight how visual and textual information, peer influence, cross-channel shopping behaviors, brands, and return policies emerge as an integral part of compensating for the inability to touch clothing products when shopping online.

**Originality/value** – Very few qualitative studies in e-commerce have focused on touch-preference and touch-compensation when consumers shop online, especially concerning Swedish millennial consumers. The present study fills this gap with an overview of how such consumers overcome the inability to touch when shopping clothing products online.

**Keywords** E-commerce, Clothes, Inability to touch, Touch compensation, Millennials

**Paper type:** Research paper

## Table of contents

1. Introduction .....	1
2. Research objectives .....	3
Purpose and research questions .....	3
3. Theoretical framework .....	3
3.1 Defining touch and haptics .....	3
3.2 Preference for touch .....	4
3.3 Compensating for the inability to touch products when shopping online .....	5
3.4 Shopping clothes online .....	6
3.5 The future of online clothes shopping .....	7
4. Research method .....	8
4.1 Observations .....	8
4.2 Interviews .....	9
4.3 Ethical considerations .....	9
4.4 Sample .....	9
4.5 Procedure .....	11
4.6 Research quality .....	13
4.7 Research results .....	15
5. Findings and discussion .....	16
5.1 Visual and textual information .....	16
5.2 Peer influence .....	20
5.3 Cross-channel shopping behavior .....	24
5.4 Brands .....	27
5.5 Return policies .....	30
6. Conclusions .....	32
7. Implications .....	33
7.1 Theoretical implications .....	33
7.2 Practical implications .....	34
8. Limitations and suggestions for future research .....	35
References .....	37

# 1. Introduction

Over the recent years, e-commerce has seen some tremendous growth both in terms of scope and magnitude, in that more and more goods and services are provided over the Internet and in that consumers are increasingly buying them in this channel (Lee, Yang, & Johnson, 2017). This is particularly true in the Swedish market, which has been described as being the largest e-commerce market in the Nordic region (PostNord, 2018a) and has been reported as being the country responsible for having the highest percentage of online shoppers in the world (Piepenbrock, 2019, March 13). The growth and proliferation of e-commerce and online shopping in Sweden has steadily increased over the last 15 year, and it shows no signs of stopping, with 2019 being projected as the year with the highest revenue generated from e-commerce to date. Besides revenue, the number of items bought and sold by Swedish consumers has also expanded, to nowadays include such things as books, toys, and electronics, as well as even food and clothes (PostNord, 2019).

However, one of the characteristics of the Internet is that it is a marketing channel in which consumers are unable to physically examine products before purchasing them. In other words, consumers are often unable to use many of their different senses when assessing potential purchases online. One of the senses often used for product evaluations that have not yet been fully integrated into the online customer experience is that of touch. That is consumers who prefer to examine products via the sense of touch before making a particular purchase are currently not fully accommodated in the online setting. In fact, the inability to touch products has been cited as the most common reason why consumers still prefer to shop in physical stores rather than over the Internet (Lee, et al., 2017) This is why many consumers with such a preference have developed certain conscious or unconscious strategies to compensate for the inability to inspect and assess products through the sense touch when shopping online (Peck & Childers, 2003b; Yazdanparast & Spears, 2013).

In the context of exploring how online retailers can overcome the many challenges that arise from consumers' inability to touch products before purchasing them over the Internet, Spence and Gallace (2011) posed the question "How, then, can Internet-sales companies deal with the lack of tactile input that their customers experience when buying online?" (p. 297). While the authors themselves provided limited answers to this question, in that they speculated that until the emergence of technologies that are capable of communicating touch experiences over distance consumers would resort to showrooming (i.e., assess and inspect products in a physical store and buying them online afterward) (Flavián, Gurrea, & Orús, 2016). Yazdanparast and Spears (2013) tackled the very same question by revealing that other means of compensating for the lack of touch sensations when shopping online are indeed possible. However, this was not the first research suggesting that consumers can employ a diverse set of means to make up for the absence of touch in the online experience. To the contrary, research by authors such as Peck and Childers (2003b) indicate that pictures and relevant written information can function as touch-compensating means when shopping online, and other researchers have also

highlighted brands as vital aids in the same pursuit (González-Benito, Martos-Partal, & San Martín, 2015; Park & Stoel, 2005), for example. Worth noting though, is that previous research in this field has almost exclusively employed different quantitative research methods (i.e., relying on surveys, questionnaires, or experiments) to investigate the behavior and preferences of consumers, however, related qualitative studies have so far been more limited in numbers.

Thus, following in the footsteps of Yazdanparast and Spears (2013), we will attempt to answer the above-quoted question of Spence and Gallace (2011) by conducting empirical qualitative research to investigate how consumers actually compensate for the inability to touch products before purchasing them when shopping online. This method was partly chosen because Spence and Gallace themselves posit that examinations of actual behavior, rather than quantitative data, can provide more reliable information for researchers and marketers. This is because they question whether questionnaire-based procedures and responses are actually representative of consumers natural shopping actions and practices. Although the main reason this method was chosen was due to the nature of the research questions, which call for a deeper level of inquiry rather than mere quantitative approaches (Marshall, 1996). Therefore, both observations and complementary in-depth interviews have been utilized to more accurately capture how consumers behave in order to handle the fact that they cannot touch products before buying them online, as well as the reasons for doing so. Furthermore, the product category selected for this investigation is that of clothing. This is due to its many touch-related characteristics and their considerable importance in the evaluation process of clothing, which complicates its sale and purchase over the Internet (Citrin, Stem, Spangenberg, & Clark, 2003; Grohmann, Spangenberg, & Sprott, 2007).

One of the reasons why Spence and Gallace (2011) posed the question above in the first place was due to the considerable opportunities that they see in a world that they portray as increasingly adopting online shopping, which undoubtedly also applies to Sweden and the Swedish market (PostNord, 2019). Additionally, Grewal, Iyer, and Levy (2004) have stressed the potential competitive advantages that can be gained by companies that successfully support consumers in their attempts to overcome and compensate for the inability to touch their products before actually buying them over the Internet. Moreover, Spence and Gallace (2011) further emphasize the opportunity of attracting and convincing otherwise “Web-savvy” consumers to conduct their shopping over the Internet as well. Perhaps the most “Web-savvy” consumer group of today is that of millennials, who were not only raised in a digital world but regularly utilize its many advantages too (Moran, 2016, January 3). Incidentally, millennials also constitute the established age category of consumers that spends the most money on apparel (Williams, Page, Petrosky, & Hernandez, 2010), which makes them of even higher interest for online retailers and this study.

The research of this paper, therefore, aims to contribute further insights into practical consumer behavior of millennials that ultimately will aid retailers, as well as academics, in their future endeavors concerning how consumers handle the inability to touch products when shopping online. Furthermore, for similar reasons, we also want to take the opportunity to gauge consumers’ interest in some retailers’ and academics’ contemporary innovative solutions to

introduce more touch sensations into the online shopping experience. Such solutions are, for example, more convenient return methods, dedicated showrooming locations, as well as digital technologies that are intended to better accommodate consumers' preferences and concerns when shopping for clothes online.

## 2. Research objectives

### Purpose and research questions

In light of that the overall purpose of this paper is to research how millennial consumers currently use and perceive available means of overcoming the inability to touch clothing products when shopping online as well as how they view relevant future innovations (and subsequently to examine how academics and retailers can use this knowledge to further their particular pursuits), our research questions are as follows:

RQ1: How do consumers compensate for the inability to touch products when shopping for clothes online?

RQ2: Why do certain consumers utilize specific methods and behavior to compensate for the inability to touch products when shopping for clothes online?

RQ3: How do consumers perceive emerging technologies and services potentially offered by retailers to help them to overcome the inability to touch products when shopping for clothes online?

## 3. Theoretical framework

The theoretical framework of this paper is largely composed of previous quantitative research concerning utilizing the sense of touch when shopping, compensating for the inability to touch products before purchasing them through an online retailer, and on research into how attitudes towards clothing affect online shopping behavior. However, this section will begin with first defining what is meant by the use of various relevant words and concepts in this paper. Then, more into details about how the lack of touch sensations affect consumers' online clothes shopping experiences will be presented. Lastly, some light will be shed on a few developments within the clothing industry that have the potential to transform the behavior of consumers in the future.

### 3.1 Defining touch and haptics

First of all, we would like to specify what we mean when using the terms touch and haptics in this paper. The sense of touch has previously been defined as "sensations aroused through stimulation of receptors in the skin" (Stevens & Green, 1996, p. 1), which is a definition that has also been utilized in previous marketing research concerning consumers' use of touch as a

means of assessing and inspecting different products (Citrin et al., 2003; Lee et al., 2017). However, this definition suggests that the sense of touch is not only experienced via our hands but through other parts of our bodies as well. This is why some authors have explicitly stated their decision to only focus on touching by hand in their research (Jansson-Boyd, 2011; McCabe & Nowlis 2003). It is also why some authors in this field have used the term “haptic” to further distinguish touching by hand from touch sensations experienced by other body parts (Jansson-Boyd, 2011; Peck & Childers, 2003b). To be more specific, the term “haptic” in this context refers to the pickup of information by the hands, or as McCabe and Nowlis (2003) put it “Haptics is defined as active touch, such as occurs when you reach down to pet a cat, and can be contrasted with passive touch, such as when a cat rubs against your leg” (p. 432). Consequently, haptic information and haptic qualities are those that can be experienced, assessed, and evaluated by the touch of a hand (Peck & Childers, 2003b). Nonetheless, in this paper and research we want to make it clear that we are taking into account *both* touch sensations experienced through the hands and other parts of the body as well (i.e. both active and passive touch), since both sense-experiences are important when it comes to assessing and evaluating clothing (Jacobs & De Klerk, 2010). This also allows us to review and consult previous research and literature, considering both types of touch sensations in the analysis of our findings.

### 3.2 Preference for touch

The sensory limitations of the Internet and online shopping have been known by marketers and researchers for some time, as has the phenomenon of consumers’ different preferences of touching products before purchase (Spence & Gallace, 2011; Yazdanparast & Spears, 2013). The phenomenon in question has for example been investigated by Citrin, Stem, Spangenberg, and Clark (2003) in their quantitative study detailing consumers’ varying needs for tactile input when considering purchasing decisions, using their customized measuring scale. It has also been studied by researchers such as Peck and Childers (2003b) and Workman (2010) using another scale of measurement, namely the Need For Touch (NFT) scale developed by Peck and Childers (2003a). Furthermore, the two scales of measuring the preference for touch have been shown to be compatible with each other, which means that they both give the same results when used to analyze individuals and their touch-preferences (Peck and Childers, 2003a). Thus, the two measuring scales and their generated results will collectively be referred to by using the terms low/lower and high/higher preference for touch (alternatively PFT for short or touch-preference). In addition, the individuals participating in the research of this paper will be classified into one of three categories based on their level of touch-preference, namely that of low, moderate, or high, depending on how strong it is deemed to be. This approach is in a way influenced by Abhishek, Sinha, and Vohra (2013), whose research involved categorizing products into low, moderate, or high haptic salience. Furthermore, the classification will be based on how the participants answer touch-related questions partly inspired by those used by Citrin et al. (2003) and Peck and Childers (2003a) and some that will be more original and relevant to this research.

### 3.3 Compensating for the inability to touch products when shopping online

Varying degrees of PFT has been observed to generate different online shopping behavior among consumers. That is, consumers with lower and higher preferences for touching products before purchasing them have been shown to respond to different cues and value different information and aspects when engaging in a purchasing decision on the Internet involving goods that are considered to have haptic attributes (Yazdanparast & Spears, 2013). For example, Peck and Childers (2003b) discovered that individuals scoring lower on their NFT scale (i.e. individuals with a lower preference for touch) could in a sense compensate for the lack of touch when shopping online by becoming more confident in their evaluations of different products when presented with more general and more haptic written descriptions in conjunction with a picture of the items. However, the same could not be said for individuals scoring higher on the NFT scale, whose confidence in evaluation remained more or less the same even though the two types of written information were accompanied by product pictures. Similarly, in the case of a sweater, people with low NFT rated the product to be of higher quality when presented with either nonhaptic (more straightforward information containing the material, design, color, and origin) or haptic (including more rich descriptions of fabric and how it feels against the skin) information in combination with a picture of it, while the quality rating of people with high NFT were not changed when either kind of written information was supplemented by the inclusion of a picture. The conclusion Peck and Childers drew from this finding was that pictures could help people with low NFT to compensate for the lack of touch, but the same cannot be said for high NFT individuals, who presumably would require additional information or touch-compensating means to be satisfied. In addition, perhaps contrary to what one might expect both people with low and high NFT rated the quality of the sweater as being higher when reading nonhaptic rather than the haptic information, no matter if a picture was provided as well, although unfortunately the authors do not go into further detail regarding why that is. These findings thus represent notable behaviors that will be kept in mind and taken into account in this research as well.

Besides various combinations of visual and textual information, it has also been suggested that other cues such as brands, reputation, and pricing can compensate for a lack of touch by signaling sufficient quality to consumers (Citrin et al., 2003). Of these, the one that seems to have received the most attention by academic researchers is that of brands, which has been described to for example be particularly good at indicating quality to consumers who are already familiar with them. This has further been suggested to ultimately function as a means of compensating for the lack of touch online (González-Benito, Martos-Partal, & San Martín, 2015; Grewal et al., 2004; Park & Stoel, 2005). Furthermore, low prices, easy and generous return policies, and showrooming has been said to function as risk-relievers that all can encourage consumers with high PFT to shop online (Citrin et al., 2003; Spence & Gallace, 2011; Yazdanparast & Spears, 2013). For return policies, consumers would consciously order products over the Internet so that they can feel the products for themselves, only to send them back if they were not satisfied with the items (Oghazi, Karlsson, Hellström, & Hjort, 2018; Pei, Paswan, & Yan, 2014). Similarly, for showrooming, the process of touch-compensation would

involve consumers going to physical stores to inspect and assess products first-hand, only to then order them online (often from another retailer) (Pandey, Sadh, & Billiore, 2017). First-hand experience with products is not always necessary for consumers however, instead they can also rely on recommendations from their peers (e.g. friends and family) to guide their shopping behavior (Park & Stoel, 2005). All in all, most of the above-mentioned means of compensating for the inability to touch products before purchasing them online have been shown to be useful in various quantitative experiments. However, qualitative academic research investigating how consumers behave in this regard has so far been more limited (Spence & Gallace, 2011).

### 3.4 Shopping clothes online

During the advent of online shopping, clothes were predicted to be one of the last product categories to be purchased via the Internet. This was due to the particularly experiential nature of clothing, where consumers often want to assess and experience such products via their senses (e.g. touch) prior to purchase (Grewal et al., 2004). Moreover, according to Citrin et al. (2003) and their comparisons between different product categories (books, videos, compact disks, electronics, flowers, and clothes), touch-preference (need for tactile input), and likelihood of consumers buying them online, only the purchasing of clothing was shown to be significantly negatively affected by the inability to touch the products before purchase. However despite such research, the product category of “clothing and shoes” has turned out to contain the most popular products purchased by Swedish consumers online (PostNord, 2019). Interestingly, research performed by Grohmann et al. (2007) suggests that clothing is the product category that consumers think touch is the most important factor in the evaluation process of different goods, which makes its popularity among Swedish online shoppers all that more intriguing. It is however important to note that unlike PostNord (2019) the authors in question make a distinction between clothing and shoes, where touch is slightly less important in the latter product category. With this in mind, this study will also exclude shoes from the product category of clothing and shoes and footwear will thus not be included in the conducted research. All in all, clothes are the perfect candidate for our investigation into how consumers handle the fact that they can neither assess nor inspect products via the sense of touch when shopping online and ultimately into how Internet-sales companies can better deal with this problem.

Keeping such touch-related challenges in mind, online clothing retailers have already attempted to overcome these consumption hurdles by either introducing various features and services that aim to allow consumers to experience the clothes before ultimately buying them, to reduce the need for doing so by turning the products into search-goods (i.e., goods whose characteristics can be assessed before personally experiencing them, for example a standardized book), or both (Citrin et al., 2003). Arguably, the challenge in question is not unique to clothing but is also present for other types of experiential goods as well (e.g. perishable foods). What is more exclusive to clothing however, is that the sense of touch is used in multiple ways in order to assess the satisfactory qualities of a specific piece. More specifically, clothes are experienced by consumers’ sense of touch via their hands when touching them and through other parts of their bodies when trying them on (i.e. both through

active and passive touch) (McCabe & Nowlis, 2003; Spence & Gallace, 2011). The act of trying clothes on before purchasing them also has a second purpose besides feeling the fabric against one's skin, namely to see whether they fit or not (Jacobs & De Klerk, 2010; Park & Stoel, 2005). Hence, just because someone has a preference for trying on clothes before buying them does not mean that they want to inspect them via their sense of touch, it could simply mean that they for example want to determine how they look while wearing them. It should therefore not be taken for granted that a consumer who utilizes retailers' return policies to assess their clothes do so in order to be able to touch them, as it merely could be to see how they fit. Similarly, it could also be the case that other observed methods of compensating for the lack of touch while shopping online are not exclusively serving that purpose (e.g., viewing pictures and reading product descriptions), instead they could also serve as means of assessing the fit of a considered item. Therefore, we want to be careful while conducting the subsequent research as to not assume the motive behind a participant using a potentially touch-compensating strategy in their online clothes shopping behavior and to properly inquire about the underlying motivations behind the actions.

### 3.5 The future of online clothes shopping

Despite the relatively slow start and growth of online clothes shopping it has experienced a tremendous increase in popularity in recent years (Lee et al., 2017; Spence & Gallace, 2011). This may lead one to wonder what the future might hold for the consumers and retailers of clothing. Interestingly, some recent ideas and innovations concerning the further development of the industry and touch-compensating means have sprung up around the globe, both in theory and in practice. Such suggestions and solutions include services that involve the consumer being able to summon someone at their doorstep who can return clothes for them (Leighton, 2018, January 29), physical "showrooming-stores" like that of "The Fitting Room" in Gothenburg where they sent your purchases to your home (as they would do if you would have bought them online) rather than you bringing them with you immediately (The Fitting Room, n.d.), virtual "try-on technologies" that could potentially show consumers how certain pieces of clothing would fit them after replicating their bodies in a virtual setting (Kim & Forsythe, 2008), and online live-chatting with salespeople on the retailers' websites that has been shown to be a viable touch-compensating alternative (Lee et al., 2017). The purpose of these attempted improvements to consumers' online shopping experience is to attract and accommodate consumers who are currently not fully comfortable with purchasing clothes over the Internet in its present form, which ultimately involves either increasing sales, lower costs (through a reduction in returns), or both (Kim & Forsythe, 2008; Perry, Blazquez, & Padilla, 2013, September). Therefore, the final part of the research will consist of inquiring about what the research participants think of these innovative means and services and how well they appeal to and suit their individual clothes-shopping behavior. Investigating how consumers in Sweden perceive such solutions is especially pertinent as they have been said to be good at adopting innovations and new technologies, which in turn makes the market as a whole ripe for testing new ways to ease the online customer journey (PostNord, 2018b).

## 4. Research method

According to Marshall (1996), the choice of research method should not depend on the mere preferences of the researchers; rather it should be derived from what type of research questions are attempted to be answered. To be more specific, research questions described as being more mechanistic “what?” questions are argued to be adequately addressed through quantitative means, while more humanistic “how?” and “why?” questions are more suited for a qualitative approach. Since the research questions of this paper fall more in line with the latter varieties, the latter research approach was deemed to be the most appropriate. Consequently, to further investigate millennial's touch-preferences and how they overcome the inability of touching products in an online environment, we will do so in an empirical context using a qualitative research approach. Therefore, for this research, we have chosen to utilize both observations and interviews, in order to capture a broader picture of individuals' online shopping behavior than what would be acquired by only employing one of the two methods. This way, we can not only observe how participants behave in an online shopping setting but can also inquire further about the decision and prioritization made during the activity. For example, if an individual often resorts to showrooming in their shopping journey, it is unlikely to be revealed during mere observations, although it might be discovered in a subsequent in-depth interview.

### 4.1 Observations

According to Eriksson and Kovalainen (2008), observation methods can be categorized into several dimensions. However, due to the essence of the research purpose and questions, non-participant, unobtrusive, and visible observations were deemed the most appropriate. A non-participant observation means that an observer does not try to become a participant in the research, and the researcher is watching rather than taking part in the process. Therefore, participants are less misguided, and it takes a shorter time for the researchers to catch data (Eriksson & Kovalainen, 2011). Unobtrusive observation means that no communication with a respondent takes place, and such observation often generates data without a subject's knowledge. In that sense, a non-participant and unobtrusive observation are likely to avoid respondent bias and minimize respondent error (Zikmund, Babin, Carr, & Griffin, 2013). A situation in which an observer's presence is known to the subject involves visible observation, and such observation is less likely to generate ethical issues (e.g., privacy issues) since participants are aware that they are being observed (Eriksson & Kovalainen, 2011). Moreover, when starting the observations, all participants will be given a scenario with the goal of purchasing a sweater and then observe how the participants navigate a website of their choosing. During the process, participants will not be interrupted to make sure that they choose the website autonomously. One distinct advantage of making observations is that it records the action as it takes place instead of hearing people describing afterward what they said or did.

## **4.2 Interviews**

However, observations do not necessarily provide insights into what a person thinks about the action or what might motivate it, and this kind of information can better be obtained by asking people. In that sense, to overcome this shortcoming of the observation method, a combination of observation and interviews will be used in the research of this paper. Although there exist different types of interviews, semi-structured interviews are particularly useful for exploring a topic intensively and broadly and from the participant's point of view. Therefore, this study will use a guided or semi-structured interview, due to its advantage that the materials are systematic and comprehensive, while the tone of the interview is relatively conversational and informal (Eriksson & Kovalainen, 2008).

## **4.3 Ethical considerations**

When business research is integrated with the participation of people, no matter in which scope or method, ethical considerations should be applied in the research process (Bryman & Bell, 2011). The core aspects of ethical considerations in business research, as Bryman and Bell (2011) concluded, are harm to participants, informed consent, invasion of privacy, and deception. The principle of informed consent aims to ensure that prospective participants are given enough information to be able to make an informed and free decision about whether or not they wish to participate in the research. To fulfill the informed consent, all participants are well-informed about the purpose, process, and how the perspective conclusion of the study will be used. In that sense, they are given the right to decide whether they want to be a part of the study, and even during the observation or interview, they are free to decide if they want to remove themselves from the study. A further ethical issue related to the principle of protecting research participants from harm is individual anonymity and confidentiality. To fulfill the demand for anonymity and confidentiality, all identities and interview records remained confidential in the entire research process. This means that all participants' real names will be excluded in the results, and their names will be replaced by alphabet letter such as A, B, C, and so on. Furthermore, personal information, such as age or financial condition will also be excluded if the participant requires. Further, in order to not put any social or mental pressure on the participants, they will be informed that there is no right or wrong for any answers given during the interview. Also, the participants' decisions regarding what sweater to hypothetically purchase after reading the scenario will not be judged, commented upon, or otherwise interrupted. In addition, other participants' decisions or answers will not be revealed in order to avoid possible peer pressure.

## **4.4 Sample**

Next, an explanation of how the conclusions were reached regarding what sampling method and sample group to include in the process of this research will be presented. This will illuminate how and why these decisions were taken, as well as providing some additional considerations that should be taken into account in the research and subsequent analysis of the findings.

According to Spence and Gallace (2011), there are proven evidence that a person's "tactile acuity" declines linearly with increasing age, i.e., the extent to which a person can distinguish between multiple different stimuli to the skin depends on how young or old they are. In that sense, younger age-groups are more sensitive to haptic cues, and touch sensations than older ones and individuals within the same age-group thus have more comparable abilities to utilize their sense of touch. The same authors also highlight the promising aspects of online retailers being able to appeal to generally "Web-savvy" consumers who might not already be using the Internet to conduct their shopping, which raises the need to identify and research such a group. Moreover, Park and Stoel (2005) point out that intentions to purchase apparel over the Internet are largely dependent on the previous online experience. In other words, consumers who have more prior experience with the Internet also exhibit a stronger intention to buy goods such as clothes in the same channel. With all of these considerations in mind and after carefully reviewing the literature relevant to the purpose and the research questions of this paper, purposive sampling has been selected as being the most appropriate sampling strategy. This is because purposive sampling, also known as judgment sampling, is a data collection strategy where researchers decide what needs to be known and set out to find people who can and are willing to provide matching information. That is, the desired participants for the study possess certain qualities that make them useful in the pursuit of answering the stated research questions. Additional characteristics of this sampling method are that underlying theories or a set of number of participants are not needed beforehand, although subjects that are potentially excluded from the sample selection process and subjects that could be overrepresented in the study should be informed (Etikan, 2016).

In addition, taking into account the above-mentioned aspects it has been determined to be the most appropriate to limit this research to consumers of a specific age-group where individuals generally have similar tactile acuity and experiences with the Internet. Therefore, the focus will be placed on millennials, i.e., people born between the years 1980 and 2000 (Hur, Lee, & Choo, 2017), and on how individuals belonging to this generation deal with the inability to touch products while shopping online. This is due to this generation's familiarity and comfortability with using various newer technologies and digital services (e.g. cell phones and web browsing), as well as due to millennials being described as being very Internet savvy and almost all of them being online. Furthermore, they are also very familiar with and open to various social media, which is perhaps related to their high need for peer acceptance and their tendency to value the advice of peers (both known and unknown) more than that of experts (Williams et al., 2010) and advertisement (Santos & Silva, 2013). These characteristics might be attributed to millennials having been brought up in a digital, media-saturated world, which has led them to be regarded as the first generation of digital natives (Moran, 2016, January 3). Additionally, millennials' online shopping habits and financial conditions further support our decisions to make them the sample group subjected to our investigation. This is because they currently seem to be among those who currently are regularly shopping online the most in Sweden (PostNord, 2019) and because they have been reported as being the age-group that spends more money on apparel than all others (Williams et al., 2010).

Furthermore, some research has explored the idea of gender differences when it comes to touch-preference in shopping behavior. More specifically, some studies have found significant differences between men and women in their study of consumers, in that women were shown to generally have higher preference for touching products in their purchasing process than men (Workman, 2010). However, other studies dispute these conclusions as they could not find evidence for the same differences (Workman & Cho, 2013). Thus, since this aspect of examining how the sense of touch affects online shopping is currently somewhat unclear we consciously and explicitly want to have a research sample that includes both men and women in order to capture more representative consumer behavior.

## 4.5 Procedure

Outlined below in this section are details about what the actual research process of this paper looked like. It begins by disclosing how the sample was recruited and continues to describe how the selected participants were subjected to the final research. Last is described how the relevant material collected from the behavior and statements of the participants has been treated before their subsequent analysis.

In order to gather a satisfactory sample, the research process began by soliciting prospective participants through the personal networks and connections of the researchers. All potential millennial subjects were considered, regardless of educational background, working experience, or urban or rural background. However, the previous online clothes shopping experience of the potential and actual research participants were taken into consideration. More specifically, an explicit criterion was established for choosing who to include in the sample, which was millennials who previously had shopped clothes online in the Swedish market (i.e., not necessarily from a Swedish retailer, but from an online clothing company that offers their goods and services to consumers located in Sweden). Although, any further requirements were not placed on their online shopping experiences (e.g., how long or how many times they have shopped clothes over the Internet) in order to include a multitude of different consumer perspectives and experiences. The main reason for only including consumers who have purchased clothes on the Swedish market is to have a sample consisting of individuals with more similar and comparable shopping experiences, with respect to for example offered goods and services, delivery options, return policies, infrastructure, and payment methods. After filtering potential participants through a brief interview process involving asking them about the above-mentioned criteria and after conducting final research (i.e. both observations and interviews) with 8 suitable millennial consumers any new themes appeared to stop emerging from the data and after two more a satisfactory framework of interpretation and analysis had been constructed, which reduced the need to solicit and recruit additional participants (Marshall, 1996). Thus the total number of individuals taking part in this research ultimately amounted to 10.

The actual research of this paper started with each participant partaking in a non-participant, unobtrusive, and visible observation, where they were tasked to navigate the web and select a sweater that they could consider buying in a non-simulated shopping situation. Furthermore, in order to make the participants' shopping tasks more comparable, by them having the same

purchase goal (Park & Stoel, 2005), they were presented with a scenario to lightly guide their behavior. In that sense, the participants were all given an identical scenario to prompt their simulated online shopping experience. The scenario in question was:

*“Spring is here, and you want a new sweater to wear in the nice spring weather. Please go to a website of your choosing and select a sweater that you would like to buy for this purpose.”*

This particular scenario was chosen due to it being deemed broad enough to encourage the participants to imagine and simulate a more realistic online shopping experience, yet limited enough to have the participants be familiar with it and to consider aspects of the sweaters suitable for their individual lives and lifestyles (Yazdanparast & Spears, 2013). Moreover, the reason why sweaters were chosen as the item of inquiry this particular clothing product has hitherto been heavily featured in the literature pertaining to haptic marketing and touch-preferences, in large part due to the item being shown to have considerable haptic properties (i.e., assessable through touch) according to consumers (Peck & Childers, 2003a; Peck & Childers, 2003b; Yazdanparast & Spears, 2013).

During the observation process, notes were taken regarding how the participants navigated the chosen websites and what the various shopping decisions were on them. Details like how long it took the participant to decide on what sweater to select, which website the participant has navigated, and what kind of items the participant has considered were also among the information that was observed and documented. The participants were also encouraged to “think out loud” while making their various decisions in the simulated shopping experience, the audio of which was also recorded. This kind of observation aims to record the action as it takes place and captures unconscious behavior to further support the research of this paper (Eriksson & Kovalainen, 2008). After the observation, a semi-structured interview centered on how the participants made their decisions and how they dealt with the inability of touching products when shopping online was conducted. The reason that we decided to use an integrated method (i.e. a combination of observations and interviews), as argued before, is to make sure that the participants’ conscious and unconscious behaviors are more accurately recorded than if only one of the individual methods had been employed. Based on the in-depth knowledge gathered from this approach an explanation of the behavior of the participants is provided in order to support this research. The data were collected through individual semi-structured interviews with many open-ended questions.

Furthermore, the topics or the guideline of the interviews were a description of their understanding of online shopping and how they deal with the inability of touching products in an online environment. The guideline for the interviews started from questions about their decisions in the observation section (e.g. why did you choose this specific website?), then moved to general questions about the participants’ background to have a better understanding of their shopping experiences. After that, the participants were asked about questions centered on their perspectives on using the sense of touch to inspect, assess, and evaluate clothes, as

well as their opinions about potential changes in the online retailing industry (e.g. more convenient ways to return items).

All of the interviews were conducted in a location and on occasion chosen by interviewees as to not have them be limited by either distance or time and to make them feel more comfortable during the research process as they are shopping online in familiar environments and with familiar means (e.g. their laptop or their cell phone). Additionally, the observations and interviews for all participants lasted between 30 to 90 minutes each. Although all the interviewees were subjected to the same general guideline, the duration for each interview was different due to the participants' different online shopping experiences, both in the observation stage of this research and outside of it.

Since the information from the ten observations and interviews was vast, therefore, coding was crucial in order to conduct the analysis. Gorden (1992) states that regardless of the type of interview being coded or how the information is to be used, certain basic steps are essential in any reliable coding process, and the first step is to define the coding categories. Some coding categories are so obvious and simple that no sophisticated definition is needed, however other familiar concepts may present a difficult problem of definition. Therefore, once the coding categories are developed and defined, the researchers coded the same interview material using the same definitions. The second step is to assign category symbols. Gorden further concludes that it is needed to assign an abstract symbol to represent any case in the category, and the symbolic label must indicate both the question (dimension) and the answer (category). Furthermore, in this research, a final "other" category was included for all unanticipated responses in case some categories of answers could not be used in any particular question. The third step is to classify relevant information. We chose to start with underlining the relevant words and phrases, then gave each a unique identification number to indicate the fragment's precise location in the transcript. The final step is to test the reliability of the coding. The researchers used the test-retest method, meaning that they coded the same material separately to see whether the coding was consistent. In this study, each researcher coded the material of all interviews under the themes ("Brands," "Cross-channel behavior," "Return policies," "Peer influence," and "Other") that emerged from the transcription process and then cross checked the codings. When the analysis of the findings was subsequently conducted, the coded material (including both information from the observations and the interviews) was used to get a better overview of the performed investigation and to compare the gathered material to that of previous research.

## 4.6 Research quality

In order to assess the research quality, three concepts of reliability, validity, and replicability are provided as the basic framework in this section.

Reliability refers to the extent to which a measure, procedure or instrument yields the same result on repeated trials. More specifically, the reliability of the study measure if another researcher would come up with a similar conclusion (Eriksson & Kovalainen, 2008). The

reliability of research represents the overall quality of the conclusions and it can be measured by external reliability and internal reliability. The external reliability refers to in what degree the study can be replicated (Bryman & Bell, 2011). The research question concerns how consumers perceive contemporary attempts by retailers to help them to overcome the inability to touch products when shopping for clothes online. Therefore, the results can be different in the future since contemporary technologies (i.e. virtual try-on technologies) might be further developed or be abandoned. In that sense, the conclusions of this study may be outdated due to the development of technologies and e-commerce in the near future. However, this study can still be regarded as relevant since it provides the research foundation for future studies within this field. Internal reliability refers to if the researchers agree on the analysis of the data collected when there is more than one researcher participated in the study (Bryman & Bell, 2011). In this study, both researchers take part in all interviews, coded the transcripts of the interviews separately and analyze the data collected collaboratively in order to strengthen the internal reliability of the study.

The validity of research refers to the extent to which conclusions drawn in research give an accurate explanation of what has been found. More specifically, validity means that research findings are valid and certain (Eriksson & Kovalainen, 2008). Similar to the reliability, the validity of research can be divided into internal validity and external validity as well. The internal validity concerns how well the conclusions drawn from the research match the empirical findings. In this study, the internal validity is guaranteed by the fact that all interviews were coded and transcribed, and the transcriptions were cross-checked by researchers. The external validity concerns the generalization of the findings, i.e., if the same conclusions can be drawn from another setting (Bryman & Bell, 2011). Although an integrated method combining observation and interview was conducted in this study in order to generate resourceful results. However, it is not safe to say that the conclusions drawn from this study can be generalized to the whole industry due to the fact that the sample of participants is still limited. Eriksson and Kovalainen (2008) suggested that generalizability implies the well-grounded and well-argued selection of research cases or participants. In this study, to better choose interviewees, we conducted some informal, pre-interviews for potential interviewees and discarded people who did not meet our standards. In that sense, external validity is enhanced in this study.

The replicability of the study refers to the degree to which the study can be replicated, and a necessary condition to guarantee that is to include enough details in the study (Bryman & Bell, 2011). In this study, from compiling theoretical backgrounds, the setting of the observation and interviews, coding the data, and conducting the analysis, have been described in detail to enhance the replicability of the study. Further, the rational reasons that explain each decision were included as well.

## 4.7 Research results

Based on the questions inspired by Citrin et al. (2003) and Peck and Childers (2003a), as well as on some more original ones (e.g. “When shopping online, do you often imagine how certain clothes would feel against your skin while wearing them?”), the participants included in the final sample was categorized depending on their apparent appreciation and prioritization of utilizing their sense of touch to evaluate products. Where someone who in a very limited capacity took touch sensations into account was deemed to have low touch-preference, and someone who did so to a somewhat greater extent was instead categorized as having moderate PFT. The category of high touch-preference was then reserved for those participants who incorporated touch sensations in almost every type of shopping situation to a very degree. However, some participants were more difficult to classify than others, and in those cases, a broader picture of how they behaved in the observation and of what they said was taken into account as well. Thus, the final classifications and categories of the research participants are presented below.

Participant	Age	Gender	Touch-preference	Means of overcoming the inability of touching products
A	25	F	High	Peer influence; Brands; Visual and textual information
B	27	F	Low	Visual and textual information; Brands; Return policies
C	28	M	Low	Showrooming; Visual and textual information
D	24	F	High	Brands; Visual and textual information; Peer influence; Return policies
E	23	F	High	Brands; Peer influence; Visual and textual information; Webrooming
F	28	M	Low	Peer influence; Visual and textual information; Brands; Webrooming
G	20	F	Moderate	Brands; Return policies; Peer influence
H	25	F	Low	Peer influence; Visual and textual information
I	25	M	Moderate	Brands; Return policies; Peer influence; Visual and textual information

Reflecting upon the sample, some noteworthy parallels and incongruities can be drawn between the various characteristics of the participants and what has been said about consumers in previous research. Firstly, it has been suggested that consumers with low touch-preference are more inclined to shop online (Rodrigues et al., 2017) and the fact that five out of the ten participants in this research has been deemed to have low PFT support such a claim. Secondly, from the sample, it is difficult to draw any definite conclusions about the correlation between gender and levels touch-preference (Workman, 2010; Workman & Cho, 2013). Overall, the men did tend to express a weaker desire to inspect and assess products through touch than the women, although an in-depth analysis of their answers to other interview questions revealed that this finding seemed to be mostly related to levels of involvement. That is, the women partaking in this research also tended to have a higher interest in the area of clothing and fashion, which can perhaps explain their stronger desire to also consider the touch sensations of clothes to a larger extent as they want as much information as possible about the items (Flavián et al., 2016). A piece of evidence that further supports this conclusion is that the man who expressed a higher interest in clothes and fashion than other members of his gender was also the man with the highest PFT. With this in mind, the question of gender will in the end not factor into the following analysis of the findings.

## 5. Findings and discussion

In this section, the findings of the conducted research will be presented in conjunction with a discussion concerning how these findings relate to previous literature and research. Moreover, the gathered information has been structured under the headings of various themes that emerged during the analysis of what the participants did and said during the course of the research sessions. The first of these themes is “Visual and textual information,” which encompasses pictures and written product descriptions of item and how consumers use them in their online shopping journey. The next is “Peer influence,” and it is comprised of details about how consumers (millennial ones in particular) are affected by other people when making decisions regarding what clothes to buy. “Cross-channel shopping behavior” is the third theme, and it highlights how consumers are not necessarily limited to conduct their purchases completely offline or online, rather a combination of the two channels can be used. Fourth is the theme of “Brand,” which explores the role of brands and their status in the minds of consumers when it comes to touch-compensating abilities. The last theme is that of “Return policies,” and it focuses on how lenient and generous services involving returning items ordered online influence the different shopping methods and strategies of the consumer.

### 5.1 Visual and textual information

Peck and Childers (2003b) revealed that people who feel less compelled to inspect and assess products via the sense of touch were satisfied by basing their purchasing decisions on pictures of the items and written descriptions about them (either haptic or nonhaptic), while those individuals who were determined to be more inclined to utilize touch in the same situation were considered not to be completely satisfied with basing their purchase decisions on only such

visual and textual information. This is also something that has been noted through the research of this paper, where some participants who were deemed to have lower touch-preference were more satisfied by pictures of clothes and descriptions of their various materials and features than those participants who had a higher desire to inspect and assess garments via touch. As an example, participant B, who admitted that she does not really care all that much about inspecting products through touch and that when it comes to clothes she instead prioritizes how they look, said that she did not go through all the information on the item page and that pictures and material description were enough for her.

*“I basically knew what to expect when I saw the picture; it’s not necessary for me to go through all the information. For the materials, I would take a quick look on this information because I don’t like space cotton, any clothes made by this material makes me look big.”*

Similarly, participant F did not think that inspecting clothes via the sense of touch was particularly important and expressed that other senses matter as well.

*“You can determine a lot by using other impressions than touch.”*

When asked about the usefulness of product description of clothes he answered that he has often found them to be very helpful in aiding him in his online shopping pursuits and that he especially looked for what the material of the items was. Although, he also adds that the main reason for doing so is not really to get a better idea of how a certain garment feels, rather it is more to gauge how it will likely fit. In fact, throughout the conducted interview he repeatedly stressed the importance of fit over other considerations (e.g. brand and how the feel is against the skin).

*“You read the product description, then you make the possible evaluation through the information that you have gotten.”*

*“It usually is made clear in the product description what the material is, then you get an idea of how it is and feels.”*

*“From the material that it says that it is made of you can get at how it will likely fit...”*

It might however be important to keep in mind that this was in regards to everyday clothing and he clarified that he was not as picky when it comes to for example exercise clothes (as he does not consider fit to be as important for these types of garments) and when buying those online, pictures and written product descriptions were more than enough. Therefore, at least when it comes to using the sense of touch, participant B and F appear to be adequately compensated with visual and textual information when buying clothes online. This seems to be because both participants value other aspects of clothing more than how different garments feel through touch (look in the case of B and fit in the case of F), which they might share with other individuals with low PFT and could explain the results of the experiment performed by Peck

and Childers (2003b). That is, other considerations than touch might help explain why people with lower touch-preference were more satisfied with visual and textual information alone. However, just as the experiment in question also showed, participants in the research of this paper with higher preference for touch (i.e. moderate or high) were not content by merely looking at pictures and reading written descriptions of clothes when shopping online. Instead, they employed several other methods and strategies in order to compensate for the lack of touch. One such participant was I, who revealed that he complemented available pictures and descriptions with other information (e.g. reviews and details about brands).

*“I trust in my own experience of visually inspecting the product, as well as in the description that exists, plus in my own research parallel to that”*

In addition, other participants such as A, D, G, H, and J also exhibited and described similar behavior (e.g. researching brands and what other people have said about them) as means of compensating for the inability to touch clothes while shopping online. A notable exception to this tendency was discovered in that of participant E, whose answers in the interview indicated high PFT but whose online shopping behavior was not consistent with the findings of Peck and Childers (2003b). More specifically, when asked about the decisions she made when selecting a sweater in the observation stage of the research she admitted that she mostly looked at the picture and did not really read through the product description thoroughly. She was otherwise very conscious and knowledgeable about different materials and how they felt, but when asked to explain her sweater selection she said that what it was made of did not factor into her final decision. Moreover, she did not mention reviews from other consumers either. The reasons for this comparatively unique behavior can, of course, be several, for example, it can be due to the simulated nature of the purchase which lowered the perceived risk of the decision and the need for searching for additional information about the garment (Park & Stoel, 2005). It could also be because of her motivation for buying clothes online, which is to find new and fun things to wear for different occasions for a reasonable price. In other words, her behavior in this instance could be explained by her imagining buying a sweater for a situation in which looks trump feel.

*“I think it’s more fun to buy more clothes for the same money than what you might get from one sweater, but then you know that the sweater that costs a lot could have higher quality.”*

*“... rather more garments you can throw away than having one sweater.”*

*“I think it is fun and if you know that you are about to do something special (maybe a party or something like that) then you might go and check if you can find something new and fun.”*

*“If you’re going out partying then you’d want something light, but pretty and stylish...”*

With this in mind, it can perhaps be concluded that people with high PFT are more prone to gather more information than merely visual and textual information when the touch sensation

of clothes are more important (e.g. everyday wear), but when the look of the clothes take clear precedence the factor of how it feels to touch or against the skin becomes relegated to a place of lower importance. More specifically, it does not seem to be the case that individuals with a high touch-preference always view the touch sensations of clothes as paramount, rather its importance can depend on the purpose of a particular garment as well. Hence, people with a high preference for touch can in some instances also be satisfied by utilizing means used by people with low PFT in order to compensate for the inability of touching clothes in the evaluation process, if one of the primary features of the garment in question is not its ability to elicit pleasant touch sensations that is.

While on the subject of look versus touch, the investigation into how the participants perceive the prospect of utilizing flawlessly functioning virtual try-on technologies (which are essentially providing enhanced visual information for the user), revealed a more clear-cut relationship between levels of touch-preference and favorability towards the technology. To be more precise, participants with low touch-preference seemed to be more positive to it, while those with higher PFT appeared to be less enthusiastic.

*“It is a brilliant new tech for people shopping online, to see, to match the clothes what they wanted. If they work perfectly, I would buy immediately...” - J*

*“I would love that, even though I can’t touch it, but I can see how it looks on me. And I always know how the clothes feel as if I know the materials. Also, you always have the option to return it.” - H*

*“I depends a little bit on from where it would be, if it would be from one of the brands I am comfortable with and know about then I would probably not care that much about it, if there is some kind of description about materials and things like that, then I could probably use it. But if it would be some brand unknown to me then I would probably like to see it in real-life, or at least they should have a very good return policy.” - I*

*“It would be nice if I can use those technologies and see how I look in it, but still I would need to feel and check how the item really looks like. I think those technologies would help me a lot if I shop brands that I don’t know, but if I have the time and chances, I would still go to the physical stores to check the real products.” - D*

*“It could be the case that it does not feel good against the skin.” - E*

The above-cited quotes also illustrate how millennial consumers who are more inclined to evaluate clothes via touch would most likely not solely rely on the technology in question in order to help them shop clothes online, rather it would be yet another tool in their arsenal of methods to get a better idea of how certain garments would physically be like. In a way, this echoes the results produced by Peck and Childers (2003b), in the sense that the combination of written information and pictures did not particularly affect individuals with high touch-preference but it did positively influence the attitudes of those with low. In other words, the

additional visual information provided via virtual try-on technologies will likely not work as a means of touch-compensation for consumers with higher preference for touch, although it might fulfill that function for those with lower PFT.

## 5.2 Peer influence

Textual information that has been shown to positively influence the intention to purchase among individuals with both lower and higher touch-preference is that of written descriptions made by people who actually have used the sense of touch to examine a product. This conclusion was drawn from the results of an experiment conducted by Rodrigues, Silva, and Duarte (2017) and their explanation for their finding was that newer generations find descriptions produced by other clients to be more trustworthy than those provided by a firm selling the item. Such a conclusion aligns with the characterization of millennials presented by Santos and Silva (2013) and Williams et al. (2010), who described this generation as being very influenced by peers when it comes to choosing what products and brands to purchase. Such peers can be both people that they do and do not know, with unknown peer supposedly being considered more trustworthy than experts and advertising. Some of these tendencies were noted during the research of this paper as well, with peer influence contributing a large part to the shopping preferences and decisions of the participants. Furthermore, the influence of peers can occur and be communicated in either offline (e.g. through friends or family) (Park & Stoel, 2005) or online settings (e.g. through social media and reviews) (Flavián, et al., 2016), which many of the participants had experienced themselves regardless of their level of touch-preference.

Offline influence had been experienced by three of the participants (namely E, G, and H), who revealed that the websites that they most frequently had purchased from had been recommended to them through friends. This type of influence also took the form of seeing other people wearing certain clothes in real life. That is, participant E and F stated that they had based previous online purchase decisions on the experience of other people rather than their own. In the case of E (who is considered to have high PFT) it was her noticing that many people at her gym wore a specific brand of exercise clothes, which she then took as an indirect recommendation that these clothes were good and comfortable to wear when exercising. For participant F (who is considered to have low PFT), his experience consisted of seeing a friend with a similar body type of himself wearing a sweater with a certain brand, which made him think that a sweater from the same brand would probably fit him as well. In other words, even though F relied on his friend for a recommendation it was mostly due to his concerns regarding fit and not something more touch-related. This further highlights the fact that although different people exhibit the same behavior, their goals and priorities are not necessarily identical.

However, peer influence online seemed to more strongly affect the participants, which is perhaps not surprising considering that it is in the same environment as the studied shopping behavior takes place. This influence took the form of electronic word-of-mouth (or eWOM) and encompasses both reviews (Flavián, et al., 2016) and Instagram influencers (Sokolova & Kefi, 2019). Beginning with the former, six out of the ten participants (i.e. A, F, G, H, I, and J)

mentioned in the interviews that they have taken the help of viewing and reading through the reviews posted by other consumers when deciding what brand to choose or what garment to purchase from an online retailer. Now, just like with offline influence, it is not the case that the participants consulted reviews only with the purpose of compensating for the inability to touch the clothes that they were browsing, rather other considerations factored in as well (e.g. fit and size). Again, participant F engaged in this type of behavior without the intention of compensating for the lack of touch, yet again prioritizing how clothes would fit him.

*“Since you know that you cannot touch the clothes, then it is not something that I have considered when ordering over the Internet, you have to inspect with your eyes and read reviews instead.”*

*“Often when people have made reviews it says if the sizes are small, if the quality is bad, or the arms are short, or whatever.”*

Nevertheless, reviews from other consumers seemed to be greatly appreciated by a majority of the millennial participants, which falls in line with the characterization of the generation outlined by Williams et al. (2010). One participant, H, particularly expressed her enthusiasm regarding reviews and their helpfulness when shopping for clothes online.

*“I love reviews, and it is one of the reasons that I buy from Nelly because there are always many reviews from people at our age, and they are so eager to let people know their opinions. Reviews can change my mind...”*

However, none of the participants mentioned reviews as an unequivocal means of satisfying a preference for inspecting and assessing clothes via touch. Instead, reviews were used to find out a multitude of different information about clothing (e.g. fit, size, and quality) from seemingly impartial and trustworthy sources (i.e. fellow consumers). The fact that more knowledge was sought from reviews than that provided by touch-related information is perhaps unsurprising since the multifaceted nature of clothing calls for other considerations than generated touch sensations (Park & Stoel, 2005). Although, it might very well be the case that details related to touch play a part in the usefulness of reviews, as suggested by the experiment of Rodrigues et al. (2017).

Even though reviews were regarded by many participants to be very useful in aiding and guiding their online clothes shopping behavior, some also brought up the issue of their credibility. For example, participant H expanded on her praise of reviews by adding that she was also wary of trusting reviews that in some sense made a product out to be too good to be true.

*“... sometimes I’m skeptical about the reviews as well. Some websites only have positive reviews, and it makes me wonder who are giving those reviews. Is it from customers or just people working in that company? So I appreciate websites with both positive and negative reviews...”*

This sentiment can be said to illustrate the millennial tendency to favor the opinions of like-minded peers over that of the advertising put out by firms (Santos & Silva, 2013). Similarly, participant F, expressed a related concern regarding the difference between the information produced by companies and by other consumers, albeit not when buying clothes but in this case, it was about a specific power-tool that he was contemplating purchasing over the Internet.

*“The company is a profit-driven operation that wants to sell, but people who have bought and used it have used it in situations that the company has not - the company might have tested it under perfect conditions or on perfect materials.”*

To make a direct comparison between clothes and power-tools might be a stretch, but this quote also highlights how millennials place more trust in what consumers on the web who have experienced a product first-hand have to say about it than the marketing of a firm selling the product. Although, neither H nor F explicitly mentioned touch-related concerns in their skepticism towards potentially deceptive marketing by firms, which could be because none of the participants in question seemed to have high PFT.

The question of using one's sense of touch to evaluate clothing was something that instead came up in the context of asking participants of their opinion of live chatting and its potential to function as a touch-compensating method. This type of service has been suggested by Lee et al. (2017) as being a useful tool for consumers to use in order to more successfully forego the inclination to inspect and assess products by touching them, however the participants of this paper were less than thrilled regarding its potential. In fact, the only one who seemed positive towards the service was participant I, who had previous experience using such a service with good results. The other participants appeared to be more neutral and some even outright negative towards its viability and its ability to help them make various purchasing decisions, citing shortcomings related to subjective judgments for example. However, unfortunately no clear relationship between the level of touch-preference of an individual and how favorable or unfavorable they viewed the touch-compensating potential could be established.

*“Then you can find out things like how the quality is... but you still can never find out how it feels while wearing it.” - F*

*“I don't trust salesperson no matter online or offline, we all know that they won't tell you the truth. Their mission is to sell more products, how do you expect them to give you real references? I can imagine that if I talk to the people online, they would just say: ‘would look good on you, just try it, and you can always return if you don't like it.' ...” - A*

*“I actually think that it's kinda annoying to talk about every single detail of clothes with an online salesperson and I believe that as for a salesperson, she or he cannot even dissect each little thing because everyone has different views about how a piece of*

*clothing feels like and the way how a salesperson express the quality or materials might not meet my initial expectation.” - B*

The last two quotes in particular (i.e. the ones from participant A and B) brings into light a seeming conflict within the mind of millennial consumers, namely that of relying on the opinions and reviews from unknown people on the Internet and that of mistrusting the information produced by companies. In other words, an online salesperson live chatting with potential customers is indeed another unknown person with preferences and experiences of their own, but at the same time, they are an agent of a business that wants to sell its products, which calls into question the impartiality and independent judgment of such an employee. This conflict can therefore ultimately affect the usefulness of live chatting as a means of compensating for the lack of touch, in that even though a salesperson discloses how a certain garment feels to touch and wear, they might not be believed by skeptical millennial consumers. Besides that, several other participants expressed that they viewed a live chatting service to be relatively unnecessary, either because they would rather rely on their own ability to discern how clothes would feel to touch or because of the perceived time-consuming nature of live chatting would make them prefer to go to a physical store instead (which in comparison was deemed a more time-efficient method of assessing and inspecting clothing).

The issue of credibility and of trusting strangers on the Internet came up again when two of the participants admitted to using social media to get inspiration and recommendations regarding possible clothing purchases. More specifically, both participant D and I revealed that they had based some of their previous purchasing decisions on what clothes various Instagram influencers had endorsed on the platform. Their experiences are not unique and it has been reported that many millennials are more inclined to trust a brand after it has been recommended to them by an online influencer (Chowdhary & Grimaldi, 2018, March 27). This sentiment was also expressed by participant I, who first outlined how he evaluates certain brands by estimating their quality by looking at how long they have existed for when shopping online and then explained how an influencer on Instagram might affect this process by letting him know about a brand that he has not heard of before.

*“You buy that which you know is of high quality, i.e. you are inclined to buy from brands that have existed for a very long time and have produced quality-clothing for a very long time.”*

*“You see that a person that you in some form look up to as a well-dressed person wearing for example a shirt from Brioni, then you check out what Brioni is and you see that it is an Italian shirt company that has existed for like a hundred years, then you might buy it the next time you see it.”*

Moreover, in the case of I, besides outlining the thought-process behind his behavior he explicitly confirmed that his own lack of experience with a certain product or brand could be compensated with the recommendation of an influencer as well. For participant D, her experience with Instagram influencers have unfortunately been more unsuccessful and in the

interview she recalled being enticed to make a purchase that in the end left her dissatisfied. So much so that she actually decided on returning the item that had been recommended to her.

*“Once an Instagram influencer I followed recommended a site called Misguide. I ordered a suit from Misguide, but I was not very satisfied with it, so I returned it.”*

Even though participant I and D were persuaded to buy a particular brand through the recommendation of different influencers on Instagram, they do not seem to have relied solely on such an endorsement when deciding on purchasing a certain product or brand. Instead, it could be that the brands themselves or their return policies also factored into the decision. Nevertheless, since influencers seem to be able to affect the clothes purchases of millennial consumers, maybe their recommendation can also function as a means for compensating for the lack of touch when shopping online. This idea appears not to have received much attention in the research pertaining to touch-compensation on the Internet as of yet, however future research might find this to be an area worthy of further exploration (particularly because the level of touch-preference for participant I and D are moderate and high respectively).

### 5.3 Cross-channel shopping behavior

The term “cross-channel shopping behavior” has been used by authors such as Flavián, et al. (2016) to describe how consumers use a combination of online and offline channels to search for and purchase various products. This denomination encompasses two distinct kinds of behavior, namely showrooming and webrooming. Where the former is used to describe the activity of consumers assessing and inspecting products in physical stores only to buy them online sometime later on and where the latter term concerns behavior consisting of consumers researching products online and subsequently buying them offline. Moreover, both these types of behaviors were noted among the participants of this research and the analysis of this conduct and its relation to touch-compensation on the Internet will be explored below, beginning with an examination of showrooming and continuing with that of webrooming.

Showrooming, as the phenomenon where consumers physically examine products in a physical store and then buy them online (for example to obtain lower prices), has attracted increased attention in business practices and research (Kuksov & Liao, 2018). In the interview with participant C, he described his experience of showrooming. As a working person with a stable income, he values product quality and fit of clothes a lot, so he rarely shops clothes online. Instead, he always goes to physical stores to examine and try on garments. However, one example he gave about his online clothes shopping behavior is that one time he found a leather jacket in a physical store, but when he was about to pay for it he researched the jacket online and found a 50% discount offer from an online retailer, so he decided to complete his purchase online instead. Many consumers may exhibit similar shopping behavior in daily life quite often, for instance participant C rarely shops online but if he does he still prefers to evaluate clothes in physical stores first, and this means that showrooming might be a problem for traditional brick-and-mortar retailers. To be more specific, Kuksov and Liao (2018) recognize showrooming as a significant threat facing brick-and-mortar retailers since they tend to have higher selling costs than online retailers and they are less likely to withstand price drops

affecting their merchandise. Also, according to an Accenture (2013) report, 73% of survey respondents indicated that they have participated in the practice of showrooming. The case from our participant lends some credence to the argument that showrooming will be a threat to brick-and-mortar retailers, however the fact that none of the other participants really shared the behavior of participant C provides reasons not to be too alarmed regarding its proliferation on the Swedish market. Although, if the practice of showrooming becomes more popular among consumers, it could be the case that those who would prefer to shop in physical stores do their research offline and their actual purchases online, resulting in a form of loss for traditional brick-and-mortar stores.

Previous research has suggested that people with high touch-preference may value showrooming more than people with lower touch-preference since it is possible to examine products' softness, firmness, and feel before ordering online (Kuksov & Liao, 2018; Spence & Gallace, 2011). However, in this study participant A, D, and E are considered to have high PFT, but they do not particularly favor the showrooming practice because they think that it is unnecessary. More precisely, although all of them think that it can be beneficial that people can physically examine items through showrooming, they expect to bring the items home with them right away, but stores like "The Fitting Room" (i.e. stores where they send purchases to your home instead of you bringing them with you immediately) do not give people this option.

*"...This is really a weird idea in my opinion, if I go to a store, I expect to bring the items I like home right away instead of waiting forever. On the other hand, the advantages of shopping online are that people can just search on websites but no need to go out, this shop is doing the opposite, it drives people to the store, which is odd." - A*

*"...Usually, we try something in the store, and we want to take the stuff home if we like the item. But this store makes people wait, and the excitement might already be gone when people finally receive the products." - D*

Participant F and B expressed similar opinions about showrooming and stores like "The Fitting Room" even though they have low touch-preference, and B also added that she thinks that such concepts will not work well due to the perceived slow delivery time in Sweden. Moreover, Participant G with moderate PFT does not currently utilize showrooming as a shopping method or to compensate for the lack of touch online and she stated that for the retailers that already have physical stores she would not like the idea of ordering an item and have it delivered to her home instead of bringing it with her immediately. However, if a store like "The Fitting Room" would offer products that she cannot already buy offline she would be more interested.

*"If the same supply exists in a store where I can receive it immediately then I would rather shop there, but if the supply does not exist in many other alternatives then why not."*

Such a sentiment was shared by participant H, I, and J, who all have different levels of PFT, as well. Among other things, they said that they would like to try shopping in such a store. Although, the reasons for their excitement regarding the concept were not identical and involved thoughts about convenience, potential advantages over online shopping, or fun.

*“...I would like that, if there is a one for online-only brands, that would be very good because I can try on the clothes before ordering. And I don’t mind waiting because I don’t shop clothes often, and if there’s a pop-up store, I can try on and make my orders for the whole year, that’s great for me.” - H*

*“...If the store would have personnel with knowledge about how things should fit and so on, having some ‘value add’ instead of just being a showroom and it would be located central enough so that you can go there after work, then it could definitely be something that I could use, although of course it depends on the supply.” - I*

*“...Sounds fun, it’s like something between online shopping and offline shopping, I would totally try it. Also, I think it is a good way for brands to catch young people’s eyes; they always like something special.” - J*

Therefore, according to this study, it is difficult to discern a clear correlation between levels of touch-preference and attitude towards either showrooming or stores embracing the concept. Actually, there seems to be no such correlation and whether an individual favors them or not appears to depend more on characteristics such as patience and shopping excitement. Thus, the potential of showrooming and showrooming-stores to function as means of compensating for the inability to touch products when shopping online is still uncertain. Even though they could potentially prove to be viable in this regard, other considerations and priorities (e.g. convenience) might possibly overshadow such an ability.

A shopping method that has hitherto been less discussed than showrooming in the research pertaining to touch-compensation is that of webrooming. In the course of this research, participant F and I claimed that they have performed such behavior when shopping, although for slightly different reasons. In the case of participant F, he usually checks the websites of retailers and then goes to a physical store of theirs to try out specific clothes that he has previously viewed online, this in order to save time and avoid running around to different offline retailers. Similar to him, participant I has previously gone to retailers that primarily do business online to try out items that he is contemplating buying so that he can make a more informed decision. What is proposed here then, is that this kind of behavior can be regarded as a way of compensating for the inability of touching products when shopping online. The reason for this is that the uncertainty that some consumers face when shopping over the Internet can be lowered by spending time and resources in searching for a product online, and then making the effort of going to a physical store to check and buy the product (Flavián et al., 2016). It is therefore possible that this process and behavior also works to help some consumers to satisfy their desire to assess and inspect products via touch. What complicates such a conclusion though is that participant F and I have low and moderate PFT respectively, i.e. neither of them

are highly motivated to utilize their sense of touch to evaluate different products. However, recent consumer research shows that 40% of Swedish consumers have engaged in webrooming behavior (which makes it the most popular cross-channel behavior in this market) (PostNord, 2019) and it can therefore very well be that some of these people have primarily done so to compensate for the lack of touch on the web.

## 5.4 Brands

The use of brands as a means of compensating for the inability to inspect and assess clothing products via the sense of touch has perhaps been one of the more well-researched areas within the relevant academic literature. This might be for good reason, since all of the participants of this research mentioned brands in one way or another, either during the observations or interviews. During the observation stage many of the participants also based the choice of what sweater to simulate buying in large part on its brand, citing for example their reliability or uniqueness.

*“...it is a brand that has existed since the 80s... it is a classic ‘casual’ brand.” - F*

*“I like it because it is not a typical brand that people have, plus they many colorful clothes and exciting designs.” - G*

In the subsequent interviews, brands were yet again given a lot of attention from the participants. In fact, several of them explicitly mentioned using brands as possible means of compensating for the lack of touch when asked questions related to the topic. This was due to brands signaling to them things like a certain level of quality and trustworthiness, among other things, which is a feature that has also been noted elsewhere (González-Benito, et al., 2015).

*“I usually trust the brands and their quality.” - D*

*“If it is from a brand that I know of and has existed for very long, that I trust, then it wouldn’t be a larger problem for me.” - I*

*“Yes, I would like to check the material and quality of the clothes if I have the chance to go to physical stores. However, if the products look really good and well-designed, or if the brand has a good reputation, I would just order online.” - J*

However, brands were of course not exclusively used as touch-compensating means. For instance, participant F heavily prioritized fit and therefore used brands and his familiarity with them to get a better idea about whether a particular garment would suit him when shopping online.

*“... if I have clothes from a particular brand beforehand then I know what sizes I have in those clothes, then I have tried it and then it is easier to order it online when I know which size fits.”*

Hence, there are several advantages to having a strong and familiar brand when marketing clothing products on the web, with the potential of compensating for touch being one of them.

Furthermore, one brand that came up repeatedly throughout both stages of the research process was that of H&M. More precisely, six out of the ten participants (i.e. B, C, D, E, I, and J) disclosed that they regularly shop from this retail brand, either offline or online. Some even said that they shop from H&M both offline *and* online, depending on factors such as whether they had time to go to a physical store, if their specific size was not available offline but was possible to order over the Internet instead, or if the online store had exclusive items that could not be found in any other location. Participant B, who prefer to shop at retail stores such as H&M, Gina Tricot, and Lindex both offline and online, was one of the participants expressing such a sentiment.

*“Usually I go to physical stores of those brands, but sometimes they don’t have the size that matches me, so I can only order online. And sometimes brands have online-only editions items, in that case I would shop online.”*

Other participants recalled similar experiences and some of them further acknowledged that the main reason why they shopped at stores like H&M both offline and online was due to them first being acquainted to the brands through their physical stores, which enabled them to inspect and assess their clothes and their various features (e.g. quality, size, and fit) first-hand through all of their senses (including touch). In turn, this made them more comfortable extending their shopping behavior to also include ordering from the companies’ online stores. Exactly this kind of behavior has been predicted by authors such as González-Benito, et al. (2015), Grewal, et al. (2004), and Park and Stoel (2005) as becoming a popular means of compensating for the lack of touch sensations when buying clothes over the Internet, especially for consumers with a higher preference for touch. To be more specific, these researchers anticipated that retailers with stronger brands in the offline market would be more successful on the web as well, since consumers “would know what to expect” from both the retailer and its clothes. This is because brands are described as signaling a certain level of quality and standardization that makes them appear more trustworthy to consumers, who in turn view the act of buying clothing from them as being less risky. This process of reasoning on the part of consumers is said to also include expectations regarding the elicited touch sensations of various garments, in that it is anticipated that individuals with higher PFT will to a larger extent rely on their previous offline experiences with brands in order to compensate for the lack of touch when shopping online. Although, through the research of this paper it cannot be concluded that there exists a correlation between levels of touch-preference and propensity to visit the same retailers both offline and online. To the contrary, reputable brands such as H&M seemed to appeal all types of participants, who cited their loyalty stemming from knowing what to expect from the company in many different aspects (e.g. fit and feel), as well as the company’s reasonable prices and occasional discounts.

In fact, since H&M is perceived by many of the participants to have reasonable (i.e. not too high) prices it could be the case that it has contributed to why they choose to buy from this

company online as well. This is because lower prices function as a form of risk-reliever that can make people less anxious about buying products over the Internet and has similarly been argued to in this sense help consumers with higher touch-preference to forego the desire to touch products when shopping online. Consequently, online retailers lacking such a strong brand like H&M might find more success in offering consumers lower prices in order to compensate for the inability to touch. However, if the lower prices also entail lower quality then it might not prove to be an all that sustainable strategy since some of the participants divulged that they previously had bad experiences with that. One participant even abandoned buying cheap clothes altogether because of it.

*“You get what you pay for.” - F*

*“I used to buy lots of cheap items from individual online retailers and found that most of the items’ quality is not trustworthy, since then I only shop on brands’ official websites. I’m not saying that expensive items are always better, but in most cases price is an important index to predict the quality.” - B*

All in all, brands appear to have many different functions in the eyes of consumers, one of which is to help them compensate for the inability to use touch to evaluate clothes when shopping online. The fact that multiple participants (with low, moderate, and high PFT) explicitly mentioned this ability of brands further supports the previous research highlighting this feature. A notable finding was also that three separate participants (F, I, and J) factored in how long a brand had existed for in their purchase decisions and took a longer history as a sign of quality, which could be an interesting area to explore in future research pertaining to touch-compensation online. Moreover, there seems to be some merit to the predictions that brands that are already well-established offline will have an advantage when selling their products online as well. Although, it does not seem impossible for new retailers that strictly operate on the Internet to appeal to consumers. As an example, four out of the ten participants with varying levels of PFT (i.e. D, F, G, and H) also mentioned that they had shopped clothes from Zalando, which is one of the most popular companies selling clothes on the Swedish market without having physical stores (PostNord, 2019). However, given the power of brands, its success might partially be attributed to selling brands that are already familiar to consumers through their offline experiences. Yet, the sole influence of brands should perhaps not be overstated. After all, participant I outlined a more complicated thought-process when asked about whether he ever feels frustrated that he cannot touch items when shopping online, which not only involved brand familiarity but several other factors as well.

*“...The thing is, my process is that if the brand is not familiar to me and I cannot find the information that I want to find from an independent source then I won’t buy it from there, so I solve it like that. Of course it is frustrating, but as I mentioned, usually they have good return policies.”*

## 5.5 Return policies

Through the observation and interview stages, it was discovered that most of the participants (apart from participant E and F) had returned items that they had bought online at least once, and some of them admitted to returning products that they had bought online quite often. This finding should perhaps not come as a surprise since consumer research has estimated that over one in ten Swedish e-commerce consumers make at least one return a month (PostNord, 2018b). Furthermore, when asked about returning products, participants who frequently shopped online claimed that a generous return policy has a significant impact on their buying intentions. Such claims align with the conclusion of Janakiraman, Syrdal, and Freling (2016), who suggest that lenient return policies have a more significant impact on purchases than on returns, something that has been further supported by other investigations as well (PostNord, 2018b). This conclusion is even further supported by what was said in the interviews of participant A, E, H, I and J regarding return policies. For example, I valued the generous and lenient return a lot and stated that he would not even consider buying from a website without free shipping and returns.

*“...Free returns and free shipping are things that you expect; it should be there.” - I*

Besides that, Pandey et al. (2017) argue that a lenient return policy may be a factor that substitutes the need for touch in an online shopping environment. According to them, the return policy has effects on how consumers perceive the quality of a certain product. More specifically, consumers tend to have a positive perception of the quality of a product and spend less deliberation time when buying products online in the presence of a lenient return policy. Moreover, the advantage of receiving goods that you have bought online to your home for testing has further touch-compensating potential. This was also something that was expressed by participant I, who highlighted exactly this benefit of lenient return policies.

*“...Those kinds of services make the store come to you, more or less.”*

However, as with most other means that have the ability to help consumers compensate for touch sensations, the fact that consumers can evaluate clothes purchased over the Internet in their own homes is not necessarily related to this feature. Participant I further expands his thoughts along this line by saying that he also utilizes lenient return policies to mix and match various clothes to see how new purchases fit with the garments that he already owns.

*“You can order many complete outfits and combine them in different ways to see if the garment is useful enough or too one-sided, then you choose what you want and send back the rest”*

Although, when I was explicitly asked whether he also views his use of return policies as a means of compensating for the lack of touch online he responded that it was actually so. This was also the case for participant G, who for instance had consciously ordered several dresses

for a certain occasion with the intent of inspecting them through touch (and of course to get a better idea about how they fit her).

In this research, it was certainly not the case that all participants saw the benefits of utilizing lenient and generous return policies as online shopping methods. For example, participant E and F said that they have never returned items because they think the process of doing so is too complicated and cumbersome. Relatedly, participant A and H claimed that the lack of leniency in return policies is one of the most essential reasons that hinder them from shopping for clothes online and A specifically mentioned how too burdensome return processes cause her to instead spend more time researching online before deciding on what to buy.

*“...As you can see, I spent lots of time researching to make my decisions. The main reason is that I don’t like to return products, there was a time I bought a skirt, but it looks too tight on me, so I tried to return, but the process seems too complicated, then I keep it in the closet.” - A*

In addition, participant A was deemed to have a high touch-preference and she claimed that the return policy could potentially be regarded as a determining factor that influences her online shopping behavior. Participant H, who has low touch-preference, also claimed that lenient return policies could compensate her inability of touching products when shopping online and in turn drive her to buy more. Hence, these opinions coupled with the practiced behavior of G and I, further supports the claims that lenient return policies may be regarded as a useful means of compensating for the inability of touching goods when shopping online, and such a factor might have even more compensatory effects on consumers with higher PFT.

In that sense, when asked about the return service where someone comes and picks up purchases that a customer no longer want at the time and location of the consumer’s choosing (so they do not have to return the ordered items themselves), participants A, E, H, I and J all showed strong interests in this kind of service. According to them, since they cannot physically examine the clothes that they choose to order online, they rely on other means such as product reviews, word-of-mouth, among others, to compensate for the inability to touch in an online environment. Oghazi et al. (2017) conclude that even though customers can compensate such inability to some extent, online sellers still have information asymmetry with the buyers due to having considerably more information about the product the sellers have. Therefore, a lenient return policy ensures that customer dissatisfaction is lowered from product selection errors. In that sense, the proposed return service, as an especially lenient return policy, can be regarded as a specific method to compensate for people’s inability to touch products when shopping online.

In addition, among the participants who support this kind of service, participant A and participant E have high touch-preference, while participant H, I, and J have low to moderate PFT. However, participant A showed the highest interest for this service among the participants and she stated that it would encourage her to order more online and decrease her researching time before making her decision. In this sense, it is argued that such a service could profoundly

influence consumers with high PFT to shop more online, since they would have the ability to inspect the items themselves via touch and because it could even be more convenient for them than going to a physical store. It could also be that such a lenient and generous return policy would signal to consumers that the products are of high quality and in this way function as a form of touch-compensating mean in a similar way that brands can (González-Benito, et al., 2015; Pandey et al., 2017). In conclusion, the idea that online retailers' lenient and generous return can help satisfy the desire of some consumers to inspect and assess products through the sense of touch is supported by the findings of this research, which means that the implementation of such policies might prove successful for companies attempting to appeal to millennial consumers in Sweden looking to buy clothes over the Internet.

## 6. Conclusions

In the introduction of this paper, Spence and Gallace (2011) were cited as anticipating that the main means of consumers for compensating for the inability to inspect and assess products when shopping online would be that of showrooming. However, during the course of this research it has become apparent that such a prediction underestimated the creativity of both retailers and consumers. In fact, it seems like consumers have been able to find many ingenious ways of compensating for the inability to experience touch sensations when shopping for clothes over the Internet. Some methods and strategies have perhaps been more conventional than others (e.g., using brands as indicators of quality), but others more clearly rely on the available means of today (e.g., peer influence via social media). Thus, for the research question concerning how millennial consumers compensate for the inability to touch products when shopping for clothes online, it has been discovered that such behavior includes a multitude of different means that all complement each other and work together to give consumers a better idea of how garments would feel to the touch. That is, it is usually not the case that a consumer only employs one means of compensating for the inability to touch products when shopping online, rather they seem to use as many available means as possible to ascertain the touch sensations generated by various pieces of clothing. However, it cannot be unequivocally concluded that a higher preference for touch leads to consumers using more means of compensating for touch than a lower PFT, rather the number of means employed appears to be more connected to involvement and interest in clothes. In other words, the findings and analysis of this paper indicate that the number of potentially touch-compensating means used by a consumer when shopping for clothes online is largely dependent upon how much they value clothing and their various characteristics.

To answer the research question pertaining to why certain consumers utilize specific methods and behavior to compensate for the inability to touch products when shopping for clothes online more precisely, many different factors besides touch-preference can be taken into account in order to explain the behavior of consumers. For example, such things as previous shopping experience, prioritization of convenience, trust in the judgment of oneself or others, the purpose of a particular garment, among other things, all shape the motivations of consumers and influence them to employ certain types of touch-compensating means. In other words, it would

not be prudent to simply attribute a method or strategy used to compensate for the lack of touch on the web to a singular reason or motivation.

These factors also seem to affect consumers' perceptions of emerging technologies and services potentially offered by retailers to help them to overcome the inability to touch products when shopping for clothes online. For instance, someone who place more importance on how a garment looks while wearing it rather than how it feels appears to be more likely to appreciate enhanced visual information (e.g. virtual try-on technologies) and someone who likes the convenience of online shopping will probably not utilize solutions that are perceived to make the experience more complicated (e.g. live chatting and showrooming stores). Although, some of the proposed solutions and the attitudes towards them could more clearly be correlated to levels of PFT. For example, virtual try-on technologies did not appear to satisfy consumers with high PFT, while low PFT participants showed a larger interest in it.

## 7. Implications

Next, we want to present what we consider the implications of the conclusions reached in this paper to be. This section will thus begin with disclosing details about certain theoretical implications and then move on to suggesting potential practical implications.

### 7.1 Theoretical implications

What is being contributed to the theoretical understanding of online shopping behavior and how consumers compensate for the inability to touch products on the Internet through the research of this paper consists of several insights that both engage with previous literature on the topics and novel findings that can lay the foundation for future inquiries. Firstly, the finding that individuals with high touch-preference can in certain situations exhibit shopping behavior reminiscent to that of people with lower PFT calls into question previous conclusions that attempt to find more general tendencies based on this factor alone (Peck & Childers, 2003b). Secondly, this paper provides further support to some suggestions regarding what means have the potential to help consumers compensate for the inability to touch products when shopping online (e.g. reviews, brands, and generous and lenient return policies), while simultaneously providing evidence that questions the usefulness of other proposed means (e.g. live chatting). Related to that is the finding that other characteristics of an individual might supersede their preference for touching products before buying them, for example their prioritization of convenience or limited trust in the information produced by businesses. Thirdly, this qualitative research has generated new understandings of what might also have certain touch-compensating abilities that have hitherto been quite sparsely featured in related academic literature, namely that of the potential of influencers and in the practice of webrooming. Fourthly, the realization that consumers use a multitude of different means to get a better idea of how a particular garment feels to touch contributes to the theoretical understanding of consumer behavior by highlighting that those who are highly motivated to assess a specific quality of a good will often use every available means to do so. Fifth and lastly, an indirect

contribution of this paper is the wisdom that it has yielded when it comes to using a qualitative approach to discern one ability (i.e. to compensate for the lack of touch) from the many means employed by consumers to evaluate products when shopping for clothes online, as the multifaceted nature of clothing makes it difficult to only focus on one consideration of the items. In other words, it is challenging to investigate how important the touch sensations of clothes are when there are so many more different aspects for consumers to consider when buying them.

## 7.2 Practical implications

We believe that the findings of this study provide valuable practical insights to both online and offline retailers, as well as to retailers operating in both channels. To begin with, our results suggest that participants mainly use five dimensions, namely visual and textual information, peer influence, cross-channel behaviors, brands, and return policies as means to overcome the inability to touch in an online environment (although not necessarily only these). In that sense, with the inspiration generated from those dimensions, retailers could make use of specific methods and related technologies to compensate consumers' inability to touch when shopping for clothing products online and further increase market share.

The first touch-compensating method that emerged from this study is that of visual and textual information, and the results suggest that consumers who are deemed to have lower touch-preference are likely to be satisfied by pictures of clothes and descriptions of their various materials. In that sense, online retailers could make use of this method by supplying high-quality images and detailed descriptions to compensate such consumers' inability to touch. Further, we suggest that virtual try-on technologies can function as enhanced visual information that can appeal to consumers with lower PFT, although probably not to those of higher.

The second factor that has been found to be a method for compensating the inability to touch is peer influence, which involves the fact that millennial consumers highly trust online product reviews from other consumers instead of information provided by either experts or companies (Santos & Silva, 2013; Williams et al., 2010). In addition, the results also suggest that millennials are skeptical of reviews only expressing positive feelings for a specific item. Therefore, online retailers should encourage consumers to supply authentic reviews about how they genuinely feel about their products, which might actually increase the credibility of the retailer even though the reviews are not necessarily wholeheartedly positive. However, the credibility of salespeople live chatting with consumers online might be more difficult for retailers to attain and it is questionable whether millennial will ever consider it a viable and trustworthy means of compensating for the lack of touch online.

Third, the popular press has pictured online retailers as a threat to brick-and-mortar retailers since they are described as having dwindling market share and decreasing margins. An even worse situation could be if consumers would only assess products in a brick-and-mortar store and purchase the same products at another retailer online instead (Kuksov & Liao, 2018). In

that case, the cross-channel behavior exhibited by the participants of this research highlights the importance for retailers to have an omnichannel strategy that includes both offline and online presence. That is, apart from building physical stores that successfully deliver services to consumers, brick-and-mortar retailers should also build a solid online channel to keep target consumers in their ecosystem.

Fourth, the results of this study provide further evidence that the use of brands is a powerful method for consumers to assess a specific item and to overcome the inability to touch when shopping online. Therefore brick-and-mortar retailers with well-known brands should take this kind of pre-established offline brand familiarity as an advantage that brings a carryover effect to the online setting. Additionally, this could also persuade online browsers (e.g. those engaging in webrooming) to become online purchasers as well (Park & Stoel, 2005).

Lastly, according to this study, it seems like lenient and generous return policies provided by online retailers can have a large influence on increasing consumers' buying intentions in addition to functioning as a way to compensate for the lack of touch when shopping online. Thus, retailers looking to appeal to millennial consumers with high PFT might want to consider implementing and marketing such a service. However, showrooming stores might not be as appealing and retailer that already have physical stores would probably not benefit from having them. Although, for retailers that currently only operate online, such a store could work well to get consumers better acquainted with their brands, which in turn could increase their sales online by for example generating positive word-of-mouth that entices millennials (Williams et al., 2010)

## 8. Limitations and suggestions for future research

The various limitations of the research of this paper will be presented below, as well as some accompanying suggestions regarding what other researchers might want to focus more on in the future. To begin with, both the observation and interview stages of the research have their own individual limitations. For example, it has been suggested that the natural shopping behavior of consumers can be better observed if they are not aware of the observation. Thus, observations in the future may be done more covertly and without a scenario, to record and elicit less guided shopping behavior. Furthermore, because the observations in this research were conducted after the participants were given a certain scenario, observer bias may be generated since the observations were not conducted in an absolutely natural setting (Zikmund et al., 2013). The interviews that were conducted in this research have some limitations as well. For instance, if the responses of the participants are too controlled by the guideline, it may hinder them from providing important information outside of it. Therefore, future research may be done with less structured interviews in order to encourage participants to more openly express their opinions and beliefs. Also, although the format of the interview questions has been systematic, it may still be difficult to compare the empirical materials since the participants respond in their own ways (Eriksson & Kovalainen, 2008). Another limitation of this study lies in the nature of qualitative research sampling. Qualitative research aims to

provide internal generalizability instead of statistical generalizability, which means that the data collected in the study is limited to a specific setting and can be replaced. Further, the nature of such non-probability sampling makes it impossible to clarify the chances of any participant taking part in the study. In that sense, it is not safe to claim that empirical findings derived from this study can be applied to the larger group that the sample was collected from (Easterby-smith, Thorpe, & Jackson, 2015). Therefore, future research could use a probability sampling method in order to generate a result with higher generalizability.

Furthermore, this study mainly focuses on how consumers overcome the inability to touch when shopping clothing products in an online environment, and hence future research could investigate how consumers overcome the inability to touch when shopping for other product categories on the web. In addition, this study is restricted to Swedish millennial consumers. Therefore, it could be valuable to explore whether the results derived from this study are the same for other countries and sample groups. We also highlight factors such as visual and textual information, peer influence, cross-channel shopping behavior, brands and return policies as integral parts of compensating for the inability to touch clothing products when shopping online. Moreover, innovative strategies such as visual try-on technologies, live chatting, very lenient and convenient return services, showrooming, and webrooming are covered as potential methods and strategies to overcome consumers' inability to touch when shopping online. Future research could use the findings of this study as a platform to include other factors (e.g. brand history) and innovations (e.g. virtual and augmented reality) to further explore the relationship between consumers touch-preference and online shopping behaviors.

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