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Number 3
285 Editorial advisory board
286 Consumer attitudes and communication in circular fashion
Kaisa Vehmas, Anne Raudaskoski, Pirjo Heikkilä, Ali Harlin and Aino Mensonen
301 Customer involvement, fashion consciousness, and loyalty for fast-fashion retailers
Juyeon Kim, Joohyung Park and Paige L. Glovinsky
317 Financial productivity issues of offshore and ‘Made-in-USA’ through reshoring
Ui-Jeen Yu and Ji-Hyun Kim
335 How citizen influencers persuade their followers
Anne Martensen, Sofia Brockenhuus-Schack and Anastasia Lauritsen Zahid
354 Collaborative consumption: a business model analysis of second-hand fashion
Sivasankari Gopalakrishnan and Delisia Matthews
369 Price and perceived product quality: a comparison of denim jeans in three price categories
Behnoosh Ghaani Farashahi, Elizabeth Easter and Kate Annett-Hitchcock
387 Effects of multi-brand company’s CSR activities on purchase intention through a mediating role of corporate image and brand image
Jihyun Lee and Yuri Lee
404 Consumer online purchase behavior of local fashion clothing brands: information adoption, e-WOM, online brand familiarity and online brand experience
Muhammad Sabbir Rahman and Mahafuz Mannan
420 Fashion bloggers: communication tools for the fashion industry
Laura Esteban-Santos, Irene García Medina, Lindsey Carey and Elena Belido-Pérez
438 Fashion misfit: women’s dissatisfaction and its implications
Kathryn Brownbridge, Simeon Gill, Sarah Grogan, Sarah Kilgariff and Amanda Whalley
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Consumer attitudes and communication in circular fashion

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Abstract
Purpose – The purpose of this paper is to explore consumers’ views and expectations on circular clothing. This paper also clarifies how the remanufacturing process should be communicated and circular fashion marketed to consumers.

Design/methodology/approach – The research methodology consisted of consumer interviews, utilising an online innovation platform (Owela) to involve consumers and workshops with project partners and with external stakeholders.

Findings – Consumers’ interest towards recycling and sustainable solutions has increased. They appreciate the idea of recycling textile waste to produce new clothes; circular products should become “the new normal”. Consumers are asking for more visible and concrete information about circular clothing and how their behaviour has affected the environmental aspects of textile production. The communication should be timed correctly by using multiple communication channels and also paying attention to the shopping experience. In addition, digital services alongside circular clothing could create additional value for consumers.

Research limitations/implications – In this study, only consumers from Finland were involved. The results might be different in different parts of Europe and especially worldwide.

Originality/value – This study focusses on circular clothing – an area that has not been studied much before. Also, consumers involved in this study were of a different age compared to most of the previous studies, where the focus has been mainly on young college students.

Keywords Consumers, Communication, Co-creation, Circular economy, Circular clothing, Relooping fashion

Paper type Research paper

Introduction
Sustainable consumption and production are important elements in preserving limited natural resources and avoiding climate change. In the textile sector, the increased consumption is mainly due to fast-changing, affordable fashion that results in an increasing amount of textile waste (Elander and Palm, 2015). The environmental impacts of textile production include energy consumption, water use, chemicals, dyes and finishes and...
greenhouse gas emissions (Pedersen and Gwozdz, 2014). Textile production is one of the most polluting industries in the world (NRCD, 2016).

According to Dahlbo et al. (2017), both increased reuse and recycling can potentially reduce environmental impacts compared to the current situation if virgin textile production is compensated. This requires changes in the whole value chain to keep materials and products in the loop and maintaining the highest possible value. Regarding textiles in the circular economy (CE) context, possibilities for consumers include, for example, purchasing durable textiles, lengthening the life cycle of textiles by careful care, repairing or reusing garments and recycling material that is no longer reusable (Dahlbo et al., 2017).

The CE based on closed loops offers a framework through which reuse and recycling can significantly be increased. In fashion, the goal is to develop a more sustainable and closed-loop system, where garments are reused or recycled into new fibres. The latter is quite a new phenomenon (Niinimäki, 2017).

The global textile fibre production, consumption of textiles and amount of textile waste are constantly growing (Dahlbo et al., 2017). The clothing industry offers more styles at lower prices in shorter time cycles and the consumers desire to change their style (Cao et al., 2014). Fast fashion is a successful and increasingly prevalent business model in which fashion retailers create cheap, throwaway goods at much lower costs and have multiple seasons instead of the traditional two collections per year (Birtwistle and Moore, 2007). Textile disposal is an increasing problem (Bianchi and Birtwistle, 2012) and the share of textiles among solid waste is increasing (Dahlbo et al., 2017).

On the other hand, organic products and sustainable brands are becoming more popular, and consumers are increasingly interested in recycling and an environment-friendly lifestyle. The fashion industry strives for a competitive advantage by differentiating their products through eco-fashions. Although consumers are becoming more aware of eco-friendly clothes and there is demand for them, they are still not selling very well (D’Souza et al., 2015). In addition to eco-fashion, ethical fashion is discussed. New fashion brands are coming to the market with alternatives produced under ethically acceptable conditions and aiming to gain interest from ordinary fashion consumers. Ethical fashion includes good working standards and conditions to workers, sustainable business models in the country of origin and the use of organic material. (Joergens, 2006) According to Niinimäki (2010), consumers have a positive attitude towards ethical consumption, but the ethical purchasing decisions are more complex. Social orientation, ideals and ideology affect consumers’ decision making (Niinimäki, 2010), where social motivators are more remarkable than personal ones (Freestone and McGoldrick, 2007). Ethics and sustainability in fashion are an abstruse phenomenon, and appears to be an oxymoron, especially within the fast fashion sector (Rutter et al., 2017).

There are several ways to decrease inconsistency between sustainability and fashion. Cao et al. (2014) found out that consumers would keep and use adaptable garments for a long time and buy fewer new ones when they were able to utilise the same garments in different ways. Alongside fast fashion, the so-called slow fashion has become a more popular, socially conscious movement that shifts consumers’ mindsets from quantity to quality. Slow fashion encompasses slow production schedules, fair wages and consumption and extending the lifespan of clothing, and focusses on valuing and knowing the product that will create significant experiences for users. It encourages people to buy high-quality items less often so that the garment could be seen as an investment (Jung and Jin, 2014; Clark, 2008).

Increased reuse and recycling of textiles can decrease the amount of new textiles from virgin materials and also reduce the use of water, energy and chemicals in the production (Dahlbo et al., 2017). Even if the reuse of clothes has already increased, consumers are discarding higher volumes of textile waste than before as a result of the fast fashion trend.
In addition to that, wear and tear and non-removable stains make textiles non-reusable (Morgan and Birtwistle, 2009). In CE non-reusable clothing should be recycled to be used as raw material. That requires separate collecting and sorting, which is not yet available on a large scale in Finland or many other countries either. Any kind of separate collecting systems require consumer involvement and willingness to return materials in this system. Consumers’ attitudes affect their involvement in material cycles and consumer behaviour can be guided towards higher involvement in buying sustainable and recycled materials as well as returning discarded textiles to reuse and recycling loops (Fontell and Heikkilä, 2017).

**Consumer attitudes and behaviour**

Consumers’ environmental or ethical concerns do not always translate into their purchasing behaviour, as seen in previous studies (Connell, 2011; Grasso et al., 2000; Henninger and Singh, 2017). The attitude-behaviour gap has not been totally understood (Henninger and Singh, 2017). Consumers’ purchasing decisions are irrational and not always well connected with their values (Niinimäki, 2010).

Price has been one of the determining factors over sustainability factors in purchase decisions (Butler and Francis, 1997; Grasso et al., 2000). Harris et al. (2016) found out that sustainability alone will not suffice to make the necessary changes in consumers’ clothing purchases. There are three reasons for that: clothing sustainability is too complex, consumers are too diverse in their ethical concerns, and clothing is not an altruistic purchase; sustainability is a low priority concern when it comes to consumers’ purchase criteria (Harris et al., 2016). Reimers et al. (2017) found out that altruism, status enhancement, perceived consumer effectiveness and happiness have a significant effect on consumers’ attitudes towards environmentally responsible clothing. In the case of sustainable clothing, the predominant target market could be found among people who are concerned about the environment. However, Joy et al. (2012) found out that for young consumers, sustainable fashion is not a priority, and that they separate fashion from sustainability even if they definitely support the idea of it.

Also, consumers do not pay much attention to ethical issues either; the majority of consumers are more interested in their own personal fashion needs than the needs of others involved in the clothing supply chain. Reasons for that, for example, consumers feel that they do not have a real choice since most of the garments are produced in developing countries and they do not have any information about production conditions (Joergens, 2006).

Chi (2015) found out that the price and quality of a garment are significant factors in purchasing decision making while social and emotional values are considered important but supplementary. However, for example in China, an increasing number of consumers are changing their personal consumption behaviour with the hope to have an impact on environmental protection. They also feel that purchasing and wearing environmentally friendly garments helps them gain social approval and make a good impression on other people (Chi, 2015).

Hartmann and Apaolaiza-Ibáñez (2012) pointed out that also psychological brand benefits, like experiential and symbolic benefits, are required in addition to utilitarian benefits, like sustainable pricing, quality, brand image and sustainable labelling. Trends that involve more sustainable purchase behaviour include vintage shopping, do-it-yourself (DIY) fashion, trashion (fashion made out of trash) and also “slow fashion” as well as utilising local cultural traditions in fashion (Harris et al., 2016). Some luxury brands have taken steps towards CE products, for example, Stella McCartney’s shoe collection made from a biodegradable and recycled plastic; Viktor and Rolf’s new collection using fabrics from previous collections; G Star Raw’s jeans and Adidas’ training shoes made out of ocean plastic (Moorhouse and Moorhouse, 2017). Also, cultural differences may affect the perception of ethical fashion.
In contrast to their purchasing behaviour, consumers already pay attention to finding new uses for their clothes. Often, it means donating the clothing to charity and giving away to family and friends (Bianchi and Birtwistle, 2012). Many consumers prefer to deliver clothing for reuse rather than binning it (Laitala, 2014). Young consumers, on the other hand, prefer swapping their clothes with friends over donating them to charities, because they want to use their fashionable clothes only a few times (Morgan and Birtwistle, 2009).

Communication
Consumers can be encouraged to buy second-hand and sustainable clothing and recycle used clothing through appropriate communication (Goworek et al., 2013). Morgan and Birtwistle (2009) found out that there is a lack of knowledge of the social and environmental impact of their behaviour. Most people lack knowledge regarding how the garment is made, or what the environmental consequences of artificial fibres and intensive cotton production are. This lack of awareness is thought to be a result of a lack of media coverage. Communication related to high-quality clothing and “value for money” thinking is to be increased (Morgan and Birtwistle, 2009).

The second-hand clothing market is powered by the low price of clothing, and also by the possibility to reduce the amount of disposed clothing and environmental pollution (Farrant et al., 2010). Cultural differences are remarkable, and for example in the USA, the majority of the respondents of the study have purchased second-hand clothing when the same number in China is 10 per cent. However, there was no remarkable difference in second-hand clothing purchasing behaviour between young consumers in these countries. Therefore, young consumers are the major target market for the second-hand clothing trade (Xu et al., 2014).

In the case of sustainable and circular fashion, the challenge is to share the message related to the reduction of consumption impacts and change consumer behaviour, but at the same time sell the products (Black, 2011). For effective communication, the intended audience and the most effective forms of transmission should be defined (Han et al., 2017). Communication should be short, include creative messages to be delivered through a wide variety of media, by using highly engaging visual or non-verbal forms. According to Han et al. (2017), key elements for CE fashion communication also include relevant research (industry trends, competitor analysis etc.), coherent values, compelling products, and feedback loops. Moorhouse and Moorhouse (2017) have also discussed about the important role of celebrities to promote a brand, but also to be involved as designers, advocates and entrepreneurs.

Da Giau et al. (2016) discuss about “sustainable communication” – a set of strategies and subsequent practices that have a relevant role in disseminating information about an organisation’s environmental and social behaviours. They point out that the web has become the predominant communication channel for sustainability initiatives. Social media channels are the most commonly used ways to reach a wider audience and enable companies to contact consumers who have expressed a prior interest, for example, in sustainability issues (Han et al., 2017). Companies are able to share their information easily with the end customers but that possibility has not been effectively utilised. Rutter et al. (2017) emphasised the importance of provenance and transparency in communication. Companies are expected to provide reports on sustainability and create ecologically focussed collections. Chan and Wong (2012) pointed out the importance of improving the store-related attributes of eco-fashion (e.g. store design, store’s ethical practices and shop convenience) to meet consumers’ needs.
and affect their eco-fashion consumption, and not only to concentrate on product-related attributes like product design, quality and price. The price of circular clothing can be decreased when there are more materials and products available and the novel processes are stable and common. This will also affect the availability of circular clothes, like also Dahlbo et al. (2017) pointed out.

Due to the fact that consumers buy environmentally responsible clothing in order to enhance their reputation and gain recognition from others, the brand and garment should be easily recognisable. Promotion and product labelling should highlight the environmental damage the clothing industry causes to increase consumer effectiveness, for example, pointing out how much water is consumed in the production of a regular t-shirt compared with an environmentally responsible t-shirt. Happiness can be affected, for example, by retail atmosphere. (Reimers et al., 2017). The British designer Amy Twigger Holroyd has, for example, taken a new approach to this: she uses Keep & Share labels in her knitwear to encourage consumers to buy less but also to share the garments with others. The garments have been designed so that they can be worn in different ways, by people of different sizes, and different genders. (Clark, 2008) Lai et al. (2017) found out that the difference between men and women is that women see sustainable fashion as unique and fashionable whereas men have the opposite opinion. In addition to gender, also age makes a difference: older consumers consider themselves as more ethical than the younger generation (Henninger and Singh, 2017).

Communication affects consumer behaviour also at the end of a garment’s life cycle. Morgan and Birtwistle (2009) found out that there is a lack of knowledge on how and where clothing is disposed of and thus, consumers could be encouraged to donate more by providing more information and collection points. Some clothing retailer chains have started to engage in take-back schemes that enable consumers to bring their old clothing to retail stores. Brands in fashion, like Mark&Spencer, H&M and IKEA have a strong strategic commitment to recycling textiles as a part of a solid and sustainable business (Morgan and Birtwistle, 2009).

The goal of this study is to understand consumers’ perceptions on circular garments and how information about the products should be communicated to consumers to increase the popularity of circular clothing. Consumers with their values, attitudes and behaviour are key enablers of the circular textile ecosystem (Fontell and Heikkilä, 2017). This study was conducted as a part of the Relooping Fashion project. The project focussed on a closed-loop model for textiles: post-consumer cotton no longer suitable for reuse is dissolved and spun into new cellulose carbamate fibre. With the new cellulose dissolution technique developed by VTT Technical Research Centre of Finland Ltd, the quality of the fibre was restored. The cellulose carbamate fibres obtained from this process resemble viscose fibres, but the chemistry used is more environmentally friendly than that of viscose.

The term “circular garment” is used in the text to describe new, high-quality garments made from chemically recycled post-consumer cotton (Fontell and Heikkilä, 2017). In the literature, the terms “reloo ped” and “remanufactured” garments have also been used for this.

Method
The research questions in our study were as follows:

RQ1. What are the consumers’ views on circular garments?

RQ2. How should the remanufacturing process be communicated to encourage consumers to choose circular garments?

The research methodology consisted of interviews, an online innovation platform and workshops with project partners and external stakeholders, summarised in Table I. This research utilises a qualitative design to explore consumer perceptions of circular clothing and their marketing.
Interviews
The face-to-face, semi-structured interviews were implemented with five Finnish consumers (two men and three women) aged from 18 to 55. The interviewees were intentionally chosen not to be particularly interested in recycling nor considering themselves to be very “green”. The aim was to get a general overview of what people think about circular garments. The results guided the project team to structure the next part of the research.

The interviews were kicked off by watching the Relooping Fashion video (VTT, 2015) and discussing what the participant thought about the information provided in the video. Other discussion topics included second-hand clothes vs circular clothing and the possible impact of environmental or ethical issues on purchasing decisions. A big part of the interview revolved around communication and marketing channels and styles; where, how and who should be communicating, marketing and raising awareness about circular garments.

Each interview took about one hour and they were recorded and transcribed. Afterwards, answers from different interviewees were combined, themed and analysed.

Innovation platform
VTT’s innovation platform Owela (http://owela.fi) was utilised for the themed discussion. Owela is an online innovation space that helps companies to develop products and services together with the users (Friedrich, 2013). It supports active user involvement in the innovation process from early ideas to piloting and actual use.

The discussion in Owela was open for five weeks in February-March 2016. The participants were invited through project partners’ newsletters, Twitter and Facebook. Unlike in the interviews, these people were expected to be interested in these issues as they volunteered to participate in the discussion. A total of 50 users contributed to the discussions. The age of the participants was between 16-78 years, and the average age was 43 years. Only 14 per cent of the participants were male and 86 per cent female. That has been the case also in many previous studies (Laitala, 2014). In general, women acquire more clothing, and they might be responsible for most clothing disposal in their families.

In Owela, participants were advised to contribute actively during the whole study. Each week a new topic was presented and participants were incentivised to comment actively through small rewards at the end of the five-week period. Two of the discussion themes were about the themes of recycling and communication that are in the focus of this paper. The other three weeks were related to company-specific discussions. Afterwards, all the comments were combined and analysed.

<table>
<thead>
<tr>
<th>Number of participants</th>
<th>Focus group</th>
<th>Topic</th>
</tr>
</thead>
<tbody>
<tr>
<td>Interviews</td>
<td>5</td>
<td>Finnish consumers</td>
</tr>
<tr>
<td>Innovation platform, Owela</td>
<td>50</td>
<td>Finnish consumers</td>
</tr>
<tr>
<td>Internal workshop</td>
<td>5-10</td>
<td>Project partners</td>
</tr>
<tr>
<td>External workshop</td>
<td>18</td>
<td>External stakeholders consisting of communications, marketing and textile professionals</td>
</tr>
</tbody>
</table>

Table I. Summary of the used methodologies
Internal workshop

The results from the interviews and discussions on the Owela platform were explored more deeply in internal workshops with the project partners. The three-hour workshops included an introduction to the topic, discussion and working in smaller groups. All the groups presented their results to the others. Results were discussed and conclusions and the next steps were defined. Through discussions and various exercises, the results were taken to the next level to provide ideas and material for communicating and marketing circular garments and services. The aim was to come up with a value proposition and what we called “anchors for a circular narrative” without strictly defining key messages.

External workshop

A workshop with external stakeholders consisting of communications, marketing and textile professionals got 18 participants. The aim of the workshop was two-fold: to introduce the basic tenets of CE and the importance of creating consumer demand for circular clothing through communications and marketing, and to further develop the “anchors for circular narrative” with professionals who were not familiar with the project. The participants were divided into groups of 5-6 people, where their task was to brainstorm and prioritise aspects that should or should not be used in marketing messages. The duration of the external workshop was three hours.

Results and discussion

Circulation of clothing

Circular clothes are not very common yet; the participants of our study were more familiar with the reuse and return of old garments. The interviewees saw that the closed-loop recycling concept presented in the video was “cool” and “simply a sensible thing” to do. Also, circular clothing was seen basically as new, and in that sense those interviewees who would normally not wear second-hand clothes would happily buy circular garments. For example, one of the interviewees commented that “The feeling I got [...] (from the video) is that it is just plain silly to throw away garments if you can use them in some way [...] it simply makes sense and I am sure that it is ecologically beneficial, too”. It seems that a positive attitude towards circular garments exists, which is a good starting point for creating consumer demand through communications and marketing.

Quality, style and comfort were the main concerns when discussing circular clothing. Consumers expect high quality, and luxurious and stylish fashion also from circular clothing. Actually, these are the same properties that consumers expect from luxury brands (Joy et al., 2012). Luxury brands could become the leaders in sustainability because of their emphasis on artisanal quality and timeless design (Joy et al., 2012). Harris et al. (2016) discussed about normalised designs for sustainable clothing, something not too exceptional. Also, Niinimäki (2010) pointed out the importance of quality and design in eco-fashion. In our study, consumers expected that the quality of circular clothing equals that of new garments made from virgin raw materials. They were concerned, for example, about “Does it shrink or stretch? What about the colours, do they stay? Can I wash it in 40 degrees? Does it pill easily?” The question of style was naturally essential for the interviewees and they felt that there is a lack of stylish ethically produced clothes: “I haven’t yet found stylish and reasonably priced ethically produced or Made in Finland clothes [...] the most ethically produced are not so cool [...]”. The interviewees pointed out that the circular garments cannot differ too much from clothes manufactured from virgin fibre; “They should be equal to new clothes, not like some awful shapeless jute bags but stylish and similar to new”. Other concerns were related to the comfort of
circular clothing, for example: “How does it feel on my skin? Is it soft, is it breathable, is it unlike synthetic fibres? I wish relooped fabric feels at least as comfortable as cotton or blended fibre.”

Most of the Owela participants and interviewees were diligent about returning their clothes for reuse, although the interviewees had initially stated that they were not particularly interested in “green” issues. Consumers’ interest towards finding a new use for their garments has been stated also in previous studies (Bianchi and Birtwistle, 2012; Laitala, 2014). In terms of the life cycle, participants were more interested in taking care of the end of the life cycle than finding out what happens at the beginning of the life cycle. It seemed that some participants wish to know, for example, the country of origin and working conditions there, but only a few people admitted this information would affect their buying decision. These kinds of results have also been found out in previous studies (e.g. Butler and Francis, 1997; Grasso et al., 2000; Joergens, 2006; Connell, 2011). Consumers also feel powerless over the beginning of the life cycle, because most of the garments have been produced far away in the developing countries (Joergens, 2006).

The participants emphasised that ease and simplicity increase their motivation to deliver discarded materials for reuse. They mostly commented that “I am not as much interested in finding out where my clothes come from as I am in knowing where they will end up”. In practice, most participants donated their old garments to a charity or someone in need, swapped with friends or sold at flea markets. Currently there is no large scale channel in Finland to recycle clothes that are too worn out and/or stained for second-hand purposes. The participants felt that these worn out textiles could easily be recycled alongside other domestic recycling: many housing companies have recycling containers for paper, cardboard, and some also organise glass, metal and plastic recycling. One more container for textiles was considered as an easy and simple solution, or even “It would simply be awesome, if someone came and picked up my old garments from home”. Recycling containers in shopping malls, near supermarkets or public transportation were also seen as viable solutions, as well as a system similar to the current bottle recycling process where a small deposit is paid for each bottle. Morgan and Birtwistle (2009) pointed out the same challenge and suggested increasing the number of collection points. The participants in our study ideated that I like the idea of returning a couple of my old shirts when going shopping” or the option to return old clothes to the clothing store when shopping for new items. Some clothing retailer chains have started to engage in take-back schemes that enable consumers to bring their old clothing to stores (Morgan and Birtwistle, 2009). Other ideas from the project focus groups included sending clothes back to the retailer. Consumers ideated also a pick-up service and an application showing the nearest containers.

**Communication and marketing**

In general, the participants felt that clothing brands could communicate far more on the environmental or ethical aspects of their operations. The nature of current information was described as too generic, too vague and containing too much drama and guilt factor mixed into the messages. There seems to be a kind of “world-saving-overload”. One of the interviewees commented that “There has been quite a lot of that sort of adverts […] I do not miss dramatising things more, the message could be conveyed in a neutral manner, like in the video. Otherwise I just get the feeling that I have done something wrong all the time”. Morgan and Birtwistle (2009) also pointed out the lack of information in marketing sustainable clothing and asked for making social and environmental consequences concrete for consumers. Black (2011) discussed the challenge in sharing facts and simultaneously selling the products. Similarly, over-promising was considered
frustrating: “Too many things are spearheaded with the save-the-world idea and people get bored about it. Nothing changes quickly in this world, so people feel disappointed when promises do not deliver results as prospected”. Some participants wanted merely neutral and fact-based communications, while others were calling for more humoristic and refreshingly surprising marketing means. A humoristic approach could increase the happiness that also Reimers et al. (2017) ask from the marketing of sustainable clothing.

There is clearly a lot of room for marketing professionals to explore these different styles in the future. Key elements for CE fashion were stated by Han et al. (2017), including, for example, short and clear, visually attractive messages delivered through a wide variety of media. Henninger et al. (2016) have created a sustainable fashion matrix to help companies to indicate their sustainable fashion priorities and to communicate it clearly to the stakeholders and strengthen their image. This matrix includes different attributes of sustainable fashion, including innovation, ethically sourced, local production, environmental standards, limited transportation, etc. to be ranked by priority for the company.

All in all, it was clear that circular garments should become “the new normal”. One important aspect was engaging people through communications and especially through storytelling. The participants brainstormed that circular garments should be more visible and concrete for consumers, like “[…] to see that my totally worn out garment became such a nice-looking piece of clothing. Making it concrete that I brought so and so many pieces of clothing and they were remanufactured into this” and “It sounds like a sensible solution […] if I knew that they were remanufactured into new clothes, it would somehow feel more personal, to know what is really happening to my old clothes”. Storytelling to engage people emotionally was also strongly emphasised by communications and marketing professionals at the external workshop. In their view, the story should start from the person who has donated the old garment and go transparently through the whole loop giving facts and using terms like, “reborn”, “nextile” or the more humoristic “reincarnation” of an old garment.

Incentives should be in place for people wanting to become part of the cycle and choosing circular garments accordingly. The fact that the dissolution technology is developed in Finland should be highlighted as a selling argument for Finnish consumers since many of them prefer locality when possible. Other aspects to promote circular garments included high quality; some even suggested marketing them as luxury items of the future. In addition, “limited edition” or “priority buying” campaigns were brainstormed to boost interest towards circular clothing. The fashion industry is looking for a competitive advantage by creating eco-collections and using celebrities to promote the brands (D’Souza et al., 2015; Moorhouse and Moorhouse, 2017). Combining emotional and factual information was considered critical.

Transparency of the whole production process loop is crucial as it increases consumers’ trust, which was also pointed out by Harris et al. (2016) and Rutter et al. (2017). There was clearly a need to understand the basic principles of how the loop is closed and what happens at each stage. Aspects that should not be brought into marketing were stated as follows: focussing too much on the dissolution technology, chemical consistence and technical details. Also talking about textile waste was not seen to be compelling to consumers.

Unsurprisingly, communicating circularity should be embedded in multiple communication channels, whether it is social media, web page, radio, adverts on television or public spaces, or information on the price tag. Morgan and Birtwistle (2009) saw the lack of awareness as a consequence of the lack of media coverage. The use of web and social media channels is nowadays essential in communication and marketing (Da Giau et al., 2016; Han et al., 2017; Rutter et al., 2017). Naturally, by utilising digital channels for advertisements
it is possible to reach large crowds easily and with low costs. Also, having sales personnel to tell about closed-loop operations would be an effective way to share the information about the background and remanufacturing process, like “I think the most viable thing would be if the sales staff would talk about it”. Also, Han et al. (2017) pointed out the in-store dialogue with the customers to create a unique shopping experience. Reimers et al. (2017) emphasised the effect of the positive atmosphere of the clothing stores when Chan and Wong (2012) discussed the importance of store design and environment as well as ethical practices and shop convenience. Our focus group also saw that organising public events would give extra credibility to the brand.

To encourage circular clothing purchases, information needs to be not only clear and correct, but also well timed. This is one of the reasons face-to-face information was seen essential, like “Face-to-face is the most effective way of communicating. I would recommend free of charge public events, where company representatives could talk about their operations. I am sure that the audience would come there if marketed locally and targeted at specific client groups”.

Getting people to buy circular clothes calls for bold marketing, communication and branding. “Maybe it should be done with a brave attitude […] if it is kicked-off as a small eco-textile project, which you can find in an eco-store, it will disappear into the unknown. It [marketing] should be really visible and capturing, so that the consumers’ mindset would change completely. A small and modest launch will not make a sufficient impact”. Still, quite a few participants felt that developing a circular approach makes the brand far more interesting. Even more, they saw opportunities for new services based on the approach, which could differentiate the brands from their competitors. Participants pointed out that “Services, such as advice on style and matching different clothes, repair services, DIY workshops and take-back for worn out textiles attract customers”. Armstrong et al. (2015) found out that services in fashion like clothing take-back, swaps and consultancy services are the most interesting ones for the consumers. Consumers are familiar with digital technologies and devices, and more and more interested in value-added services, compared to the basic products themselves (Niinimäki, 2017). Also, Antikainen and Valkokari (2016) highlighted the novel business opportunities that can be created besides CE production.

New ways to engage consumers are needed since manufacturers, designers and retailers do not truly know what consumers want and expect from eco-fashion, and it is suggested to utilise consumers as stakeholders (Niinimäki, 2010). Change towards more sustainable consumption can be achieved by focussing on consumers’ values and needs and also by providing better consumer satisfaction (Niinimäki and Hassi, 2011; RSA, 2016). Niinimäki and Hassi (2011) have discussed also a new kind of value creation through service thinking that focusses on product value defined during the use. It should be profoundly connected to consumer satisfaction as well as the product life span. Other important values for the consumers are emotional and environmental value. From the business point of view, cultural and social value, sustainable development and future-oriented value are the most crucial ones (Niinimäki and Hassi, 2011).

Conclusions, implications and limitations
The time is ready. Consumers and companies are aware of the limited natural resources and climate change and concerned about the challenges they cause. It is understood that something needs to be done. Novel technological solutions for a more sustainable and closed-loop system have been developed for the textile industry, and new sustainable and circular brands are coming to the market. The closed-loop system, where garments are recycled into new fibres, is quite a new phenomenon and a new business opportunity.
In this study, we reviewed consumers’ views on circular garments (RQ1). Consumers really like the idea of recycling textile waste to produce new clothes. Finnish consumers more commonly return the clothes for reuse than throw the old garments away and they would be willing to return their textile waste to a separate collection point as they do with paper, metal and glass. The attitude towards circular clothing is positive. Circular clothing is seen basically as new, and in that sense those who would not wear second-hand clothes, would happily buy circular garments. Circular garments should be more available on the market, and they should be branded as luxury items and a special edition that would be easily recognisable.

Even if consumers are interested in taking care of the end of the life cycle, they are not actually so interested in the beginning of the life cycle. And, even if consumers are interested in environmental and ethical issues, and they have the facts about manufacturing and working conditions, these do not usually affect their buying decision. More information presented in an attractive way needs to be provided to increase consumers’ knowledge and willingness to buy sustainable clothing.

Communication has a remarkable role in convincing consumers of the importance of sustainable consumption. This study aimed also to clarify how the remanufacturing process should be communicated to encourage consumers to choose circular garments (RQ2). Obviously, more information about the environmental and ethical aspects of the textile manufacturers and brand owners should be available and communication should be more visible. Consumers also expect more concrete information regarding how their behaviour has affected, for example, the decrease of waste or the use of poisonous chemicals and hoped to see the results that have been achieved. Here, storytelling was seen as a useful way to share this information. Consumers expected neutral and fact-based information, even humoristic, but preferred to avoid drama in the communication. Transparency of the production process is crucial to gain consumers’ trust. All communication channels should be widely used in marketing. The role of web and social media channels has increased lately, but exploring different marketing styles is a must.

Feedback from the focus groups emphasised the need for value-added new services. Various services linked to circular clothing could create additional value for the consumers. Servitisation and digitalisation enable novel service development. Digital technologies have become more integrated across all sectors of our economy and society, and they create novel possibilities for economic growth (Vehmas et al., 2015). However, it is important to understand the needs and expectations of the consumers and use them as a starting point for service development. The best outcome will be achieved when developing the future services with the end-users. The service element needs to be included in the product design and business model from the beginning (Niinimäki, 2017). Cultural differences in using second-hand clothing are significant (Xu et al., 2014), but it can be expected that the difference is not so important in circular clothing.

This study was qualitative, thus quantitative information about consumer behaviour was not obtained. In order to ensure a better reliability, we selected consumers for individual face-to-face interviews to not be so focussed on sustainability as we knew that Owela discussions attract those who are already oriented towards this topic. In this study, consumers only from Finland were involved. The results might be different in different parts of Europe and especially worldwide (Carey and Cervellon, 2014; Xu et al., 2014; Chi, 2015). For example, Finnish consumers are very diligent in returning their old clothes for reuse and it can be expected that they have a more positive attitude towards recycling also their textile waste and also to using circular clothes. Still, consumers involved in the study were of a different age compared to most of the previous studies, where the focus group has consisted mainly of young college students (Laitala, 2014).
References


Further reading


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Customer involvement, fashion consciousness, and loyalty for fast-fashion retailers

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Abstract
Purpose – The purpose of this paper is to investigate how customer involvement in product development creates an emotional connection, satisfaction, and subsequent loyalty toward fast-fashion retailers across high vs low fashion-conscious consumers.
Design/methodology/approach – Both qualitative and quantitative methods were used to gain understandings of the impacts of customer involvement. To explore customers’ general perceptions of fast-fashion retailers, a focus group interview with 11 US students was conducted. Data for a hypothesis test were obtained from 306 US female consumers and analyzed through structural equational modeling.
Findings – The findings underscored the relational benefits of involving customers in product development and the substantial moderating impact of female customers’ fashion consciousness.
Practical implications – The study’s findings support that the customer-brand relationship can be solidified by proactively involving customers in product development. This is beyond benefits derived from leveraging customers’ operant resources in product innovation. Thus, apparel retailers should take such interactive opportunities to build relationships with customers. Also, involving customers in product development can be a critical way for fast-fashion retailers to establish an emotional bond with and loyalty from consumers with a low level of fashion consciousness. Thus, any digital opinion platform designed to foster customer involvement should be managed with the customer-brand relationship in mind.
Originality/value – This study contributes to the emerging body of literature on customer involvement in product development in fast-paced retailing by elucidating the psychological process through which their participation strengthens the customer-brand relationship manifested in emotional, evaluative, and behavioral responses to the brand, and by identifying a consumer attribute that fortifies this process.

Keywords Loyalty, Fashion consciousness, Customer involvement in product development, Fast-fashion retailers

Introduction
Fast-fashion retailers’ success largely depends on speedy reflection of ever-changing customers’ taste for fashion and bringing the latest styles that meet their needs and wants. Thus, fast-fashion retailers must establish an efficient communication network for consumers to incorporate their input into different stages of product development (Gruner and Homburg, 2000). A growing number of retailers have been trying to build customer connections and interactions, with terms like customerization (Miceli et al., 2007), customer co-creation, and reverse marketing, now part of a new mantra, particularly in the fast-paced retailing industry. A feedback-based customer involvement system, such as online brand communities and brand social network sites, can be an efficient knowledge-sharing platform for fast-fashion retailers as these digital platforms allow retailers to garner customer suggestions and feedback on new products, trends, and preferences for latest trends.

Despite the observation that engaging with customers via brand community and social network sites enhances the customer-brand relationship (Brodie et al., 2013; McAlexander et al., 2002), the current literature on product development focuses predominantly on the benefits of collaborating with customers in product innovation and market success (Gemünden et al., 1992; Gruner and Homburg, 2000). This study examines whether consumer involvement in product development provides relational benefits to fast-fashion retailers. Tangible benefits, such as whether their input incorporated into
product lines and materialized for the marketplace can encourage the customers’ involvement, provide substantial potential for building a strong customer-retailer relationship. The speedy application of customers’ feedback and suggestions regarding product development using technologies and digital platforms may facilitate this process. Thus, it is important to understand the implications of consumers’ knowledge sharing through digital platforms on the consumer-retailer relationship. To this end, this study aims to develop a theoretical model that specifies the process in which customer involvement in product development creates an emotional connection, enhances satisfaction, and subsequently builds brand loyalty in the fast-fashion retailing context. Additionally, although a recent study showed the substantial effects of consumers’ personal characteristics on their attitudes in the context of apparel co-creating apparel design (Wu et al., 2017), our understanding of how consumer characteristics, such as fashion consciousness, come into play in shaping the customer-retailer relationship is still limited. To address this void in the literature, this study also investigates the potential impact of customers’ fashion consciousness in the context of customer involvement in product development.

Literature review and conceptual framework

Fast-fashion retailers

To gain competitive advantages in the marketplace, retailers seek to connect with their customers and establish a loyal customer base with effective and competent communication solutions that provide their customers with desirable benefits. As retail technology advances along with widespread use of the internet as a communication medium, retailers are making ongoing efforts to promote customer feedback forums, or virtual brand communities, and inquiring into services to meet their customers’ needs and exceed their expectations. As customers’ expectations and demands for products have dramatically increased, finding a unique way of involving customers in product development and the marketing process has become crucial for gaining a competitive advantage in the marketplace (Gruner and Homburg, 2000).

Fast-fashion retailers, in particular, have been making efforts to develop efficient supply chain and dynamic manufacturing systems to bring fast-changing fashion trends to the customer (Bhardwaj et al., 2011; Taplin, 1999; Turker and Altuntas, 2014). To meet the demand for lower cost and more flexibility in design and speedy delivery to market, structural changes in supply chains are necessary (Bhardwaj et al., 2011; Doyle et al., 2006). Fast-fashion retailers (e.g. H&M, Zara) have been successful in creating demand for their trendy products by deliberately pushing for higher product turnover without replenishments (Bhardwaj et al., 2011). Vertically integrated supply chains with multiple lines of design and an efficient manufacturing system enables a company to roll out new items at a fast pace. This is done in response to a quick analysis of real-time sales data (Payne, 2016) and customer feedback matching supply and demand with rapid product cycles (Caro and Gallien, 2010). Establishing a highly efficient knowledge-sharing platform that allows for the integration of customer preferences and needs for the latest trends in rapid production cycle is imperative to fast-fashion retailers’ success.

Customer involvement in product development

According to Kaulio (1998), the term “customer involvement in product development” refers to “the interaction between customers and the design process” (p. 142). Successful product development should be based on in-depth understanding of the customers and their unique needs (Lagrosen, 2005). Thus, companies must engage customers in two-way communication to gather their feedback and suggestions beyond the product reviews and incorporate them into their research and development (R&D) process. If customers can become
directly involved in the design process through feedback and suggestions, with a potential to see them in use, the resultant products can be perceived as exclusive and desirable.

With the growing popularity of platforms, such as online brand communities and brand social networks, today’s customers share their information, experiences, and opinions on brands/products with both companies and other customers. These digital platforms allow retailers to leverage customers’ suggestions and feedback regarding new products and their preferences for latest trends. Virtual customer environments, such as virtual communities, virtual design toolkits, and prototyping centers, in particular, are particularly useful for retailers to engage with their customers in product development and support activities (Nambisan, 2002). The virtual customer environments can be used for product ideation, product design and development, product testing, and product support services (Nambisan, 2002; Nambisan and Baron, 2007). Retailers may leverage customers’ input in different phases of product development with various roles – customer as resources, customer as co-creator, customer as tester, and customer as user (Nambisan, 2002; Nambisan and Baron, 2007).

A systematic approach to understanding customer involvement in product development may also need to consider both longitudinal and lateral dimensions of customer involvement (Kaulio, 1998). The longitudinal dimension describes the points of interaction at different phases of the product design process. The lateral dimension taps into the depth of customer engagement in the product design process. Kaulio (1998) described this dimension with three categories: “design for” where a product is designed on behalf of the customers based on knowledge learned about the customers; “design with” in which a product reflects the customers’ preferences, needs, and requirements with diverse solutions; and “design by” where customers are proactively involved and take the lead to develop their product. Some customers may have continuous interaction with the design system throughout the entire course of product development while others may only be involved in one or two phases (Lagrosen, 2005). If a retailer has a fully integrated feedback/suggestion network in place, it may have a better chance to interact closely with its customers, and therefore encourage high levels of customer involvement throughout the product development process. Customers can participate in developing a product with attributes they want, which may contribute to the customer-retailer relationship (Merle et al., 2010; Fiore et al., 2004).

Companies have become increasingly interested in understanding the customer involvement process through the participation of brand communities. A brand community is “a specialized non-geographical community based on a structured set of social relationships among admirers of a brand” (Royo-Vela and Casamassima, 2011, p. 519). A virtual brand community is developed online with the characteristics of a brand community. Royo-Vela and Casamassima (2011) explain how consumers’ association with a brand’s virtual community and a level of participation in the community (e.g. posting reviews, sharing information on discussion forums) affects their response to the brand. The participants in the virtual brand community can satisfy their needs by establishing relationships with other like-minded people as well as the brand. They often share knowledge, information, and opinions regarding the brand and its products (e.g. product evaluations, reviews, suggestions) while creating a positive experience through the interactions (Royo-Vela and Casamassima, 2011).

**Fashion consciousness**

Fashion consciousness is an important consumer attribute for fast-fashion retailers because this personal trait predisposes the customers to be more receptive to and make use of fashion marketing communications (Kaiser and Chandler, 1984; Kinley et al., 1999). Fashion consciousness is defined as the degree to which a person is involved with the styles or fashion of apparel (Nam et al., 2007). It reflects the personal value of having up-to-date...
fashion styles to maintain social status (Lertwannawit and Mandhachitara, 2012). Fashion-conscious consumers like to keep up with the latest, fashionable styles and enjoy shopping for its own sake (Walsh et al., 2001); are more likely to discuss fashion with friends and perceive themselves as a knowledgeable source of information (Nam et al., 2007; Vieira, 2009); tend to evaluate the quality more intensively by using various cues (Gitimu et al., 2013); and are more likely to seek opinions via eWOM (Kang et al., 2014). They also shop more often, spend more, and purchase more apparel items than the less fashion conscious (Fairhurst et al., 1989; Flynn and Goldsmith, 1993). Consumers with different levels of fashion consciousness vary in their responses to the apparel product attributes, and consequently, have different attitudes toward the apparel (Kim et al., 2002). A positive relationship between fashion consciousness and perception of fashion knowledge has been observed, leading to a greater level of consumer confidence in fashion-related decision making (O’Cass, 2004). Fashion consciousness is also found to be an important determinant of male customers’ status consumption (Lertwannawit and Mandhachitara, 2012). Overall, the literature supports that consumers with a higher level of fashion consciousness show differences in information processing (e.g. search for information), beliefs and attitudes toward fashion, and behavioral responses to the brands from those with a lower level of fashion consciousness (Naderi, 2013). This study extends the current literature to explore how this consumer attribute comes into play in the relationship between consumer involvement in product development and their subsequent response to the customer-brand relationship in fast fashion.

Research model and hypotheses
The research model and hypotheses were developed regarding how customer involvement in product development can create an emotional connection, enhance satisfaction, and subsequently build brand loyalty.

Research model
Engaging with customers in brand communities, both offline and online, has been viewed as a strategic imperative for building customer relationships (Brodie et al., 2013; McAlexander et al., 2002). Customers’ interaction with a brand via a virtual customer environment tends to elicit affective reaction toward the brand, and such an affective state together with their perceptions of interaction-based benefits plays a major role in shaping the customer-brand relationship (Nambisan and Baron, 2007). The extent to which customers participate in a virtual brand community influences their affective commitment, satisfaction, and positive word-of-mouth behaviors toward the brand (Royo-Vela and Casamassima, 2011). Similarly, customer participation in a virtual brand community can increase their loyalty to the brand around which the community is developed (Casalo et al., 2008). The key consequences of customer-brand community engagement include enhanced loyalty, satisfaction, empowerment, connection, emotional bond, trust, and commitment (Brodie et al., 2013). In sum, the literature on customer involvement via brand community indicates the strong potential for customer engagement for strengthening the customer-brand relationships.

Engaging customers in sharing product-related information with the company may provide customers with the desirable benefits/outcome (i.e. customer suggestions used in product development); hence, satisfaction resulting from the engagement affects customer loyalty to the brand. Customers may also experience the feeling of connectedness with the brand while participating in the product development process as they customize, suggest, or give feedback about the product (Brodie et al., 2013). Thus, the research model (see Figure 1) presents how emotional connection and satisfaction derived from customers’ involvement in product development affect customer loyalty while showing the moderating effects of fashion consciousness throughout the process of building loyalty.
Research hypotheses

The literature demonstrates that customer involvement can help creating customers' emotional connection with the brand and the brand's products (Deighton and Grayson, 1995). Emotional connection refers to the degree to which a consumer identifies and feels a personal connection with a brand. Conceptualized as an emotional bond, the consumer experiences about a particular brand, the concept of emotional connection has been associated with an attachment to the brand, which develops through a series of interactions between customers and the brand over time (Thomson et al., 2005). While being involved in the product development process, a customer may experience an affective reaction leading to the development of an emotional bond with the company (Nambisan and Baron, 2007). Thus, customer involvement in product development through providing initial input regarding trends, modification suggestions regarding product features, and improvement suggestions, can lead to the formation of an emotional connection. We propose the following hypothesis:

H1. Customer involvement will have a positive influence on the emotional connection with the brand.

Customer involvement in the product development process, with a high level of possibility of their suggestions being incorporated into the product designs, may improve the level of customer satisfaction. According to the expectation-disconfirmation theory, consumer satisfaction depends on meeting their original expectation about the performance of a product/service (Oliver, 1980). When a product/service exceeds the person's initial expectation, a positive disconfirmation occurs, resulting in customer satisfaction. Yet, when it does not meet the customer's initial expectation, a negative disconfirmation occurs, resulting in dissatisfaction. A collaboration with customers provides important benefits to the customers and the retailers because the resulting products/services tend to fit better to the customers' needs and preference (Simonson, 2005) after making full use of the information provided by consumers. The better the product/service fits the customers' preference, the more likely it is to match customers' expectation for it. We propose the following hypothesis:

H2. Customer involvement will have a positive influence on satisfaction.

Emotional connection derived from enhanced interaction with the brand may also have a positive effect on customer satisfaction because customers' emotional connection to a brand
predisposes them to respond more favorably to the brand-related experience (He and Li, 2011). According to He and Li (2011), when a positive disconfirmation occurs, customers with a strong emotional connection are likely to be even more satisfied because such an overfulfillment of their expectation reassures them of their connection to the brand and eventually helps to maintain their self-esteem. When a negative disconfirmation occurs, however, they are less likely to be dissatisfied because of their resilience to a negative experience with the brand. Pérez and Rodríguez del Bosque (2015) found that customers’ emotional connection has a positive influence on their satisfaction with the brand. We propose the following hypothesis:

H3. Emotional connection with a brand will have a positive influence on satisfaction.

The emotional connection developed through customer involvement in product development can have a substantial impact on customers’ brand loyalty. Feeling connected to a brand is an important aspect of emotional attachment to the brand (Thomson et al., 2005), which is associated with a strong commitment to a long-term relationship between the customers and the brand. A customer’s emotional attachment to a brand is an important determinant of brand loyalty (Carroll and Ahuvia, 2006). Also, loyalty toward a brand/company is an essential consequence of consumers’ emotional bond with the brand because consumers who develop a bond with a brand/company, rather than its product, are more immune to minor negative issues and go on supporting the brand (Bhattacharya and Sen, 2003). Thus, emotional connection with a brand may lead to brand loyalty. We propose the following hypothesis:

H4. Emotional connection with a brand will have a positive influence on brand loyalty.

Highly satisfied customers are more likely to be loyal to the brand (Zeithaml et al., 1996; Royo-Vela and Casamassima, 2011) as they are less susceptible to competitors’ marketing efforts (Fornell et al., 1996). Given that loyalty is the outcome of customer satisfaction (Carpenter and Fairhurst, 2005), a positive relationship between satisfaction and brand loyalty is expected. We propose the following hypothesis:

H5. Customer satisfaction will have a positive influence on brand loyalty.

Fashion consciousness can be an important consumer trait that may come into play in determining how consumers perceive the experience of involvement in product development and, thus, their emotional connection, satisfaction, and loyalty. Customers with a higher level of fashion consciousness are more likely to show brand switching propensities, co-opting their purchasing from a repertoire of multiple retailers due to the importance of fashion to their self-concept (Michaelidou and Dibb, 2009). For highly fashion-conscious consumers, the priority is to have a self-relevant fashion style that best represents them rather than other variables, such as their experience with a particular brand. Also, fashion-conscious consumers tend to use more cognitive efforts to make a fashion-related decision, and thus are more committed to their decisions (Vieira, 2009). This tendency leaves little room for other variables, such as customer involvement in product development, to influence the customer-retailer relationship because highly fashion-conscious customers would remain relatively robust to other stimuli compared with those who are less fashion conscious. Therefore, this study suggests that the effects of customer involvement in product development will be less pronounced for consumers with a higher level of fashion consciousness than those with a lower level. We propose the following hypothesis:

H6. The relationships among customer involvement, emotional connection, satisfaction, and loyalty will be weaker for consumers with a high fashion consciousness than those with a low fashion consciousness.
Method
This study examined how customers’ involvement in product development (through knowledge sharing manifested in customer suggestions and feedbacks) can create strong ties to fast-fashion brands through emotional connection and satisfaction leading to brand loyalty. Both qualitative (focus group interview) and quantitative (online survey) research methods were used to gain insight into customers’ involvement with a brand and how the brand can hope to increase loyalty through this collaborative process.

Focus group interview
Undergraduates students enrolled in a large, south-eastern university in the USA were recruited to participate in a focus group interview for course credit. In total, 11 students between the ages of 18 and 25 participated. The purpose of this qualitative research is to explore customers’ general perceptions of fast-fashion retailing. The participants indicated that they had prior experience with fast-fashion brands, so they were asked questions regarding fast-fashion retailers, their supply chains, and advertising/marketing and their perceptions of customer involvement with the brand. They provided their opinions on the trends fast-fashion retailers carry and their shopping experiences with apparel retailers in general. The discussion lasted approximately 50 minutes, and was recorded and transcribed for further analysis.

Quantitative data
Data collection and sample. An online survey was administered to consumers residing in the USA using a snowball sampling method. Survey invitations containing a link to the online survey were sent out to potential respondents, including the university’s student and faculty, via e-mail and social network sites, which resulted in 306 usable responses. The respondents provided information regarding their general apparel shopping behaviors and their propensity to make suggestions for and provide feedback to an apparel brand. Also, they were asked about their feelings, satisfaction, and loyalty toward the brand. Lastly, they provided demographic information.

Operational definitions and measures of constructs. The literature on customer involvement in product development describes different ways for companies to leverage customers’ operant resources in developing new products. Most commonly mentioned, among many, include involving customers in idea generation, developing a design, and product testing process based on their own experience with the products (Gruner and Homburg, 2000; Nambisan, 2002; Nambisan and Baron, 2007). This study operationalized the concept of customer involvement in product development as customers’ general propensity to make suggestion/opinions related to apparel trends and their personal preference for apparel products in the context of fast fashion. In the survey, the respondents were directed to think of a fast-fashion retailer with which they have prior experience when answering questions on constructs. Just as in the interview, the survey respondents were asked to make comments/suggestions in this regard for fast fashion and other brands if applicable. Although the current study is geared toward the fast-fashion industry, the suggestions were purposely opened for all apparel retailers to gain insights on potential ways to build customer-retailer relationships in the apparel industry. It taps into the idea generation aspect of customer involvement and their propensity to provide feedbacks/reviews based on their experience with brands. More specifically, the customer involvement measurements in this study include three aspects of customer involvement throughout the product development process in the form of feedback, initial input regarding trends, modification suggestions regarding product features, and improvement suggestions (Gruner and Homburg, 2000; Nambisan, 2002; Sawhney et al., 2005). The emotional
connection was operationalized through the extent to which a customer feels connected to a brand based on interactions between the customer and the brand, and was assessed using four items from Thomson et al. (2005). Satisfaction and loyalty were operationalized through the extent to which they are satisfied with and loyal to the brand. Lastly, fashion consciousness was measured by asking how important it is to have the latest apparel style (Nam et al., 2007). All items were measured using a five-point scale (1 = never, 5 = always).

Sample characteristics. Most respondents were between the ages of 18 and 25 (58.5 percent). The age groups between age 45 and 65+ accounted for 27.1 percent of the sample while those ages between 25 and 44 comprised 15.6 percent. Most of the sample (63.4 percent) indicated they purchased apparel or related products more than ten times per year, and most (73.5 percent) have more than three years of online shopping experience.

Analysis and results

Qualitative results

The interview began with establishing general understandings of the fast-fashion retailing, opening by listing names of retailers and their ability to introduce new products in a shorter period than other apparel retailers. The participants listed H&M, Zara, Forever 21, and others as major fast-fashion retailers. They also pointed out that despite considerable differences in price and quality, these retailers have in common quick changes of merchandise selections while deliberately ignoring stock-outs for scarcity.

When asked about what customer involvement meant for them, one interviewee said, "[...] makes it personal to the actual person who wants to buy it, like he is in charge of that company making them, makes the decisions on what to do for what he wants." Another participant said, "If I had to summarize in one word, I would just say 'power.' It just gives the consumer power to create whatever s/he wants." The participants mentioned "customerization" as an interesting service they would like to see when shopping for apparel products. One interviewee mentioned Nike as an example: "[...] you get to pick what colors you want, where, all over the shoe, and being able to customize it," and added that "[...] customizing the entire outfit [...] that'd be nice."

Another participant said "[...] I worked for Nordstrom this summer and sold suits, and you can pick your fabrics, your cuts, I mean every single detail you can pick." From the comments, it was evident that the ability to give their input on how the product should be is important. The customers seem to develop a special attachment to the product, which may enhance their loyalty to the brand. Another participant said, "Well that's a good thing, you have that unique self-expression that you made." It was evident that when customers engage in the process of changing product features to their liking, they enjoy the opportunity for expressing one's self through the customized products, which in itself is rewarding and tends to motivate them to come back for another.

Overall, the participants were willing to give suggestions/feedback if they like or would change anything to meet their preference. Most agreed that involvement in product development would be gratifying as the resulting product would actualize their ideas and preference. On the contrary, an interviewee said, "I definitely feel like I am giving you my ideas to make your product better, and yes, I might get the product that I want, but I'm still giving you all, I guess technically my intellectual property, and I pay for it anyway." Some were weighing the level of commitment to giving feedback with the reward. One interviewee said, "I would want my name on the tag if I helped develop it," indicating a strong desire for involvement and guaranteed return. For most, however, the involvement process in the product development itself can be rewarding. One participant said "[...] I'd still tell everyone my suggestion got made through and that my product is going to be in stores." It seems that if the retailer communicates with the customer and demonstrates its care for the customer's opinion, it is likely to enhance the customer-retailer relationship, which is pivotal to building loyalty.
Hypothesis test results. Reliability and validity. An exploratory factor analysis was performed to assess dimensionality of the customer involvement measures with the Maximum likelihood extraction and Promax rotation. An eigenvalue (> 1.0) and scree plot confirmed the one-factor structure of the construct with the factor accounting for 69.25 percent of total variance. Factor loadings (> 0.60) and Cronbach’s α estimates (> 0.9) also confirmed the validity and reliability of customer involvement measures.

Next, confirmatory factor analysis was conducted to assess the measurement model, which included 15 observed variables and four theoretical constructs (customer involvement, emotional connection, satisfaction, and loyalty). The results indicated the model fits the data well ($\chi^2 (81) = 160.72, p < 0.001$, CFI = 0.98, NFI = 0.97, RMSEA = 0.06). The standardized factor loadings of each measure ranged from 0.66 to 0.98, and average variance extracted (AVE) estimates for all constructs were greater than 0.6, confirming the convergent validity of the measures. Discriminant validity was assessed by comparing AVEs with squared correlations among the constructs (Table I). All AVEs were greater than the squared correlations, confirming the discriminant validity of the measures (Fornell and Larcker, 1981). The reliability of the measures was also confirmed by examining composite reliabilities (> 0.9) and Cronbach’s α values (> 0.9).

Hypothesis testing. A structural model was created to test the hypothesized relationships applying maximum likelihood estimation using IBM SPSS Amos 24.0. The resulting structural model yielded a good fit to the data ($\chi^2 (82) = 161.33, p < 0.001$, CFI = 0.98, NFI = 0.97, RMSEA = 0.06).

$H1$ and $H2$ suggested the positive effects of customer involvement on emotional connection and satisfaction. Both paths between customer involvement and emotional connection ($\beta = 0.44, p < 0.001$) and between customer involvement and satisfaction ($\beta = 0.33, p < 0.001$) were positive and significant, supporting $H1$ and $H2$. The result confirmed that customers who are more involved in the product development process by making suggestions/opinions and providing feedback about apparel trends, specific products, and their personal preferences are more likely to feel emotionally connected to the brand when they demonstrate genuine care about their input. Also, the results indicated that those who are more likely to be involved tend to be more satisfied with the brands when their voice is heard.

$H3$ and $H4$ postulated the positive influences of emotional connection on satisfaction and loyalty. The relationship between emotional connection and satisfaction was positive and significant ($\beta = 0.59, p < 0.001$) as was the link between emotional connection and loyalty ($\beta = 0.37, p < 0.001$), supporting $H3$ and $H4$. These results indicated that when customers feel emotionally connected to the brand through their involvement in the product development, the emotional connection can lead to a meaningful outcome for the brand in the form of enhanced customer satisfaction and customer loyalty.

$H5$ proposed the positive relationship between satisfaction and loyalty, which was significant ($\beta = 0.51, p < 0.001$). This result showed that when customers are satisfied with

### Table I.
Mean, standard deviation, convergent and discriminant validity

<table>
<thead>
<tr>
<th></th>
<th>Mean</th>
<th>SD</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Customer involvement</td>
<td>1.98</td>
<td>0.86</td>
<td>0.68</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Emotional connection</td>
<td>3.15</td>
<td>1.20</td>
<td>0.19</td>
<td>0.86</td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Satisfaction</td>
<td>2.68</td>
<td>1.16</td>
<td>0.34</td>
<td>0.54</td>
<td>0.81</td>
<td></td>
</tr>
<tr>
<td>4. Brand loyalty</td>
<td>2.92</td>
<td>1.21</td>
<td>0.24</td>
<td>0.56</td>
<td>0.61</td>
<td>0.85</td>
</tr>
</tbody>
</table>

Notes: The numbers in diagonal are the average variance extracted for each latent construct. The numbers below diagonal are the squared correlation coefficients between the variables.
Finally, $H6$ postulated potential difference in customer response to involvement experience between highly fashion-conscious customers and the others. High and low fashion-conscious groups were divided using a mean split ($M = 3.29$, $n_{\text{high}} = 129$, $n_{\text{low}} = 177$). A multiple-group analysis was conducted to test the hypothesis. First, the metric invariance test across the high and the low fashion-conscious groups yielded a non-significant result ($\Delta \chi^2 (11) = 9.37$, $p = 0.59$), and thus the model was used as the baseline model for testing the structural path invariance. Next, we constrained all structural paths between the two groups to be equal, which yielded significant results ($\Delta \chi^2 (5) = 16.28$, $p = 0.006$), indicating some structural paths are significantly different between the two groups. A series of subsequent tests revealed that the path between customer involvement and emotional connection was significantly weaker for high fashion-conscious customers ($\beta = 0.35$, $p < 0.001$) than those who are less fashion conscious ($\beta = 0.78$, $p < 0.001$) ($\Delta \chi^2 (1) = 6.08$, $p < 0.05$), and the association between emotional connection and loyalty was also significantly weaker for high fashion-conscious customers ($\beta = 0.18$, ns) than those who are less fashion conscious ($\beta = 0.56$, $p < 0.001$) ($\Delta \chi^2 (1) = 10.11$, $p < 0.001$). On the other hand, the link between satisfaction and loyalty was significantly stronger for high fashion-conscious customers ($\beta = 0.42$, $p < 0.001$) ($\Delta \chi^2 (1) = 4.47$, $p < 0.05$). Finally, no difference in the link between customer involvement and satisfaction was found between the two groups ($\Delta \chi^2 (1) = 0.07$, ns). Thus, $H6$ was partially supported. The results suggest that the effects of customer involvement and the subsequence influences of emotional connection and satisfaction on loyalty depend on customers’ fashion consciousness. The involvement in product development is less likely to produce an emotional connection for customers with high fashion consciousness than customers with low fashion consciousness. Yet, its influence on satisfaction is no different regardless of fashion consciousness. Also, emotional connection is less likely to enhance satisfaction and loyalty for customers with high fashion consciousness than those with low fashion consciousness while satisfaction exerts a stronger influence on loyalty for them compared with customers with low fashion consciousness. That is, their loyalty is grounded less on emotional connection and more on satisfaction compared with the customers with less fashion consciousness.

Additionally, we tested whether there are differences in the latent constructs (involvement, satisfaction, emotional connection, and loyalty) between high vs low fashion-conscious groups. The results revealed that the higher the fashion consciousness, the more they are to be involved in product development ($M_{\text{high}} = 2.21$, $M_{\text{low}} = 1.82$, $p < 0.001$), satisfied ($M_{\text{high}} = 3.08$, $M_{\text{low}} = 2.38$, $p < 0.001$), emotionally connected ($M_{\text{high}} = 3.33$, $M_{\text{low}} = 3.02$, $p < 0.05$), and loyal ($M_{\text{high}} = 3.28$, $M_{\text{low}} = 2.65$, $p < 0.001$).

<table>
<thead>
<tr>
<th>Hypothesis</th>
<th>$\beta$</th>
<th>SE</th>
<th>$t$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>$H1$: customer involvement $\rightarrow$ emotional connection</td>
<td>0.44</td>
<td>0.08</td>
<td>7.68***</td>
</tr>
<tr>
<td>$H2$: customer involvement $\rightarrow$ satisfaction</td>
<td>0.33</td>
<td>0.05</td>
<td>6.82***</td>
</tr>
<tr>
<td>$H3$: emotional connection $\rightarrow$ satisfaction</td>
<td>0.59</td>
<td>0.04</td>
<td>11.45***</td>
</tr>
<tr>
<td>$H4$: emotional connection $\rightarrow$ loyalty</td>
<td>0.37</td>
<td>0.06</td>
<td>6.41***</td>
</tr>
<tr>
<td>$H5$: satisfaction $\rightarrow$ loyalty</td>
<td>0.51</td>
<td>0.08</td>
<td>8.30***</td>
</tr>
</tbody>
</table>

**Notes:** $\chi^2 (82) = 161.33$, $p < 0.001$, CFI = 0.98, NFI = 0.97, RMSEA = 0.06. ***$p < 0.01$, ***$p < 0.001$
Discussion

The study’s findings have shed light on understanding how customer involvement in product development leads to loyalty in the context of fast-fashion apparel retailing. The results underscore the impact of customer involvement on their emotional connection and satisfaction with the brand, which enhance their loyalty. This study contributes to the emerging body of literature on customer involvement in product development in fast-paced retailing by elucidating the psychological process through which their participation strengthens the customer-brand relationship manifested in emotional, evaluative, and behavioral responses to the brand. Also, this study sheds light on the moderating effects of consumers’ fashion consciousness on the relational consequences of customer involvement.

Theoretical contribution

The interviews revealed that for young customers, customer involvement means having more power and control on their side to the extent that once they decide to get involved, they do not settle for anything less than what they want. In that sense, the interviewees noted that “customization” is one of the best ways to involve customers because it allows them to modify products to their personal needs, create unique products that no one else possesses, and engrave their “self” on the product. These findings closely mirror Merle et al.’s (2010) viewpoint that customization offers multiple benefits to customers, such as utilitarian, unique, and self-expressive values, in addition to hedonic and achievement values. These customers believe that making suggestions/providing feedback regarding apparel trend, personal preference, and product details are another way to be a part of product development. They agree that involvement with the retailers and the production process eventually allows the brands to introduce garments that better fit their taste and preference to the market. In general, they find it emotionally gratifying to imagine that their ideas/suggestions turn into actual products. Regardless of the resultant outcome, however, involvement itself seems to be meaningful to those customers because it gives them a feeling of fulfillment and pleasure. These benefits are similar to the hedonic and creative achievement values of the collaborative design process in customization context suggested by Merle et al. (2010). Thus, these findings from qualitative data support and extend their findings as we found that such benefits also exist when customers are involved in product development.

The study also provides a significant contribution to the existing literature as the findings of this study empirically demonstrate the impacts of customer involvement on customer-brand relationships. Unlike previous studies that paid much attention to understanding determinants and motivations of customer involvement (Merle et al., 2010; Nambisan, 2002; Tsai et al., 2012), this study investigated the relational consequences of customer involvement. The findings indicate that customers who often provide suggestions and feedback are more likely to develop a strong emotional connection with the brand, which increases their satisfaction with and loyalty toward that brand. This implication of customer involvement to customer emotion has not been thoroughly examined in the relationship marketing literature. The findings also demonstrate that customer involvement through suggestions/feedback directly enhances their satisfaction with brands. While Borle et al. (2007) found that mere participation in a firm-sponsored survey can produce favorable customer behaviors, such as favorable response to promotions and increase in spending, it is important to add to the literature that emotional connection and customer satisfaction play vital roles in customer involvement and loyalty relationship.

Finally, this study expands the literature on fashion consciousness by examining its role in consumer involvement and relational consequences. The findings indicated that although customers with low fashion consciousness are less likely to be involved in product development, the effect of their involvement on emotional connection is stronger than
customers with high fashion consciousness. Also, the emotional connection derived from customer involvement exerts a stronger influence on loyalty for consumers with low fashion consciousness than those with high fashion consciousness. For the customers with high fashion consciousness, there seems to be less room to improve loyalty based on emotional bond than those with low fashion consciousness, although they maintain high levels of customer involvement, satisfaction, emotional connection, and loyalty than customers with a lower level of fashion consciousness. For them, satisfaction derived from customer involvement exerts a more significant influence on loyalty. Previous studies provide ample evidence of how consumers with high vs low fashion consciousness perceive, evaluate, and behave differently about fashion-related decisions (e.g. Kim et al., 2002; O’Cass, 2004). This study expands the current literature by providing empirical evidence of its moderating impacts on customer involvement and the customer-retailer relationship.

Managerial implications
This study provides valuable insights into consumers’ perception of involvement in product development and its effects on their responses not only to the fast-fashion retailers, but also traditional fashion retailers. At the store level, managers need to make sure that corporate designers have up-to-the-minute customer information, which enables them to decide the latest fabric, cut, and price point for a new garment (Folpe, 2000; Bhardwaj et al., 2011). Zara, for example, has been making constant efforts to incorporate customer feedback into their product development and merchandising by updating its product assortment to reflect current trends while gathering up-to-the-minute customer suggestions and feedbacks. From the interview, however, the consensus was that young customers would like to use technology for providing ideas and feedback to brands rather than talking to an employee. Thus, the use of online and offline outlets and platforms to gather customer feedback to increase an opportunity to get the customers involved in the R&D process is critical in building loyalty. Given that the customer-brand relationship can be solidified by proactively involving customers in the product development process, it is recommended that fast-fashion retailers create and cultivate digital platforms where customers can experiment with prototypes/materials/designs and communicate their opinions on recent trends and their preferences (Nambsian, 2002; Royo-Vela and Casamassima, 2011).

Next, given that customers tend to define involvement as having more power and control in the process, it is crucial to build an interactive communication system that empowers customers. Young customers are shown to be skeptical about the plausibility that their suggestions/opinions would ever be chosen and reflected in the outcome after committing their valuable time, which may elicit a feeling of being “used” especially when there is no explicit reward. It is important for fashion retailers to fully acknowledge customers’ contribution and communicate how their suggestions/opinions are reflected in the product development process, which demonstrates a respect and appreciation for the customers’ participation.

Traditional retailers, depending on their supply chain structure, could use the same or different strategies suggested in our discussion. For example, in department stores, the Jr dept, where vendors are more fast-fashion oriented and customers are more fashion conscious, could well utilize technologies to quickly apply the concept of customer involvement to build/increase emotional connection and satisfaction, hence loyalty for close customer-retailer relationships. Private label brands in women’s and men’s departments could also benefit from the implication suggested (e.g. involvement through customer co-creation and/or customization) based on our findings.

It is also essential for fashion retailers to recognize that such customer involvement can provide the benefit of stronger customer-brand relationship, which is beyond the benefits derived from leveraging customers’ input and knowledge into product development to
enhance product performance. Based on the findings, fashion retailers are recommended to approach such interactions as an opportunity to foster a connection between their customer and the brand in addition to the opportunity to gain knowledge about/from the customer and to leverage their resources in product development. Any digital opinion platform designed to foster customer involvement, therefore, should be managed with the customer-brand relationship in mind.

Lastly, it is essential for fashion retailers to consider the impact of fashion consciousness on emotional connection, satisfaction, and loyalty formation. Understanding fashion retailers’ goal for involving customers in product development can be different; depending on the customers’ level of fashion consciousness, they should formulate involvement strategies accordingly. It should be noted that although consumers with low fashion consciousness are less likely to be active in providing feedback and suggestions, customer involvement strategy can be a useful tool for establishing their loyalty because of the emotional bond the customers will experience during the process. Thus, when engaging with low fashion-conscious customers, the companies need to place more emphasis on building an emotional connection with the brand and other customers. With high fashion-conscious customers, however, they can focus on identifying and meeting their expectations about the interactive process because their loyalty is more grounded in their satisfaction.

Limitations and future research
While this study provides valuable insights into how customer involvement in product development affects their responses to the brand, it is not without limitations. First, the data were collected using a snowball sampling method via social media, which increases the chance to over-represent individuals with more online social connections. Besides, young (age between 18 and 25) respondents dominated the sample. Thus, one should exercise caution in generalizing the findings. Second, the sample only consists of female consumers residing in the USA, which imposes a constraint on the generalizability of the results to male consumers. The findings would also be enriched with a broader sample across different generational cohorts to examine potential generation differences.

References


Further reading


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Financial productivity issues of offshore and “Made-in-USA” through reshoring

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Family and Consumer Sciences, Illinois State University, Normal, Illinois, USA, and
Ji-Hyun Kim
The Fashion School, Kent State University, Kent, Ohio, USA

Abstract

Purpose – The purpose of this paper is to examine merchandise performance-based financial productivity of offshore vs reshore sourcing scenarios for fashion/seasonal products with higher demand uncertainty, using computer simulation software.

Design/methodology/approach – Using Sourcing Simulator™, the researchers generated a data set of 530 simulations concerning merchandising performance measures for offshore and reshource sourcing scenarios. Analysis of covariance was conducted for data analysis.

Findings – Results show financial productivity differs, depending on a sourcing decision between offshore and reshore sourcing scenarios as well as on the levels of volume error and assortment error. The reshore sourcing scenario through “Made-in-USA” domestic production strategy can have a better profitability, including gross margin return on inventory with service level, in cases of under-volume error and over-assortment error, than the offshore sourcing scenario.

Research limitations/implications – Findings from this study are based on simulation data, which may have a gap between simulations and reality concerning the competitive advantages of “Made-in-USA” domestic production strategy. “Made-in-USA” domestic production strategy can be more agile and responsive to the uncertainty of markets and customer demands when the supply chain systems are well-integrated and fully implemented.

Originality/value – Results from this study contribute to fill the literature gap about differences of financial productivity between offshore and reshore sourcing scenarios for apparel manufacturers and retailers. This study also offers an insight of which decision response may be better to uncertain customer demands, while satisfying financial productivity.

Keywords Supply chain management, Sourcing, Financial productivity

Paper type Research paper

1. Introduction

Many apparel brands focus on a mass market interested in fast fashion and aim to increase profits by cutting costs through offshoring – the relocation of a company’s manufacturing or business processes to outside of the home country – for example, China and other low-labor cost countries in the Southeast (The Fashion Law, 2016). Over 90 percent of apparel goods sold in the US were domestically produced in the 1960s and over 50 percent in the mid-1990s (The Fashion Law, 2016). There was a shift from domestic sourcing to global sourcing with most of apparel manufacturing jobs offshore mainly to Asia for lower costs during the late 1980s, resulting in over 90 percent of apparel and footwear manufactured overseas during the 2010s (The Fashion Law, 2016).

Recently, many American companies tend to return home and reshore – shifting manufacturing back to the USA – production from overseas to the USA (The Fashion Law, 2016). Reshoring is known as onshore and inshore, and reintroduces domestic manufacturing in the USA (Gray et al., 2013). Ellram et al. (2013) consider reshore as relocating manufacturing back to the home country of its parent.
Reshoring apparel manufacturing was a strategy to reduce the high unemployment rate in apparel manufacturing, decreased over 80 percent between 1990 and 2011, and unethical labor and/or environmental practices in overseas manufacturing or sourcing (Pal et al., 2016; The Fashion Law, 2016). Additionally, many American consumers are increasingly purchasing “Made in the USA” products as patriotic (The Fashion Law, 2016). For example, Brooks Brothers reshored some of their production to the home country of the brand’s origin (Abnett, 2016). In addition, Juicy Couture is actively gliding on the trend of Made in the “Glamourous” USA and American Luxury watch brand, Shinola, is assembling their products in Detroit using imported parts (The Fashion Law, 2016). On the other hand, some scholars claim reshoring manufacturing to the home country may not have a significant impact on hiring domestic/local labor to solve unemployment issues (de Backer et al., 2016; Saki, 2016). Sometimes, technological advancement may assist a firm’s adoption of reshoring. For instance, robots are used to automate sneaker production at Adidas’s so-called “Speedfactory” in Ansbach, Germany, leaving only minor components, such as lacing the shoes to human labor to complete the process (The Economist, 2017).

However, offshoring is still a primary sourcing strategy for many apparel manufacturers (Gott et al., 2014). Many companies are faced to make strategic decisions concerning offshore and reshore strategies where trade-offs of these strategies are evaluated. There are many factors influencing strategic decisions for offshoring vs reshoring, such as currency fluctuation, raw material location, labor cost, availability of labor, availability of logistics, supply chain interruption risk by distance to customer, strategic access to potential markets, access to suppliers or buyer knowledge, ethical and environmental issues, political instability, and government trade policies (Ellram et al., 2013). Companies’ decisions for manufacturing locations are increasingly determined by not only cost savings in manufacturing process (The Economist, 2012; Fishman, 2012), but also total costs considering supply chain disruption risk and value creation (Cantwell, 2009; Ellram et al., 2013; Williamson, 2012). For instance, Ellram et al. (2013) found the reshoring movement to the US is negatively associated with cost savings, while positively associated with supply chain interruption risk reduction. Supply chain-related issues can have negative impact on revenue and profits, especially due to the long lead time to customers and delayed replenishment, which cause increases in merchandise stockouts and lost sales at the store level. Reducing supply chain-related issues is becoming more imperative for location decision for manufacturing in the USA (Ellram et al., 2013).

Current literature identified factors that drive reshoring, but the financial productivity issue of reshoring fashion goods has few studies, despite this may assist apparel companies in determining offshore vs reshore decisions. As more apparel companies consider expansion of their clothing lines by adopting domestically produced garments, financial advantages for domestic production of apparel products over offshoring production should be investigated. Therefore, the purpose of this study was to examine merchandise performance-based financial productivity of offshore vs domestic sourcing scenarios for fashion/seasonal products with higher demand uncertainty using computer simulation software.

This study is conceptually grounded on behavioral theory of the apparel firm with a quick response (BTAF/QR), focusing on the importance of the merchandising function and supply chain management in the rapidly changing apparel industry (Kunz, 2010). According to the BTAF/QR (Kunz, 2010), domestic production and sourcing are assumed to fully implement a supply chain management system. This may offer more competitive benefits to apparel manufacturers and retailers due to the faster, more responsive nature to customers’ demand uncertainty, compared with offshoring. Based on empirical findings from this study, the researchers aimed to offer managerial implications for American apparel
manufacturers and retailers to enhance their strategic decisions, and management of domestic production and sourcing to be more financially productive under increased uncertainty in customer demands and the fashion market.

2. Theoretical framework
In a BTAF/QR, there are six essential internal constituencies for an apparel firm that adopted QR. These include core areas of specialization encompassing all business functions including executive, merchandising, marketing, operations, finance, and supply chain (Kunz, 2010). The external constituencies of an apparel firm include communities, competitors, customers, families of employees, shareholders, and suppliers. In addition, an apparel firm is operated in a complex of cultural, ecological, economic, political, regulatory, social, and technological surroundings. Kunz (1998) postulated domestic production under the supply chain management system could be more effective in response to customers’ demands more promptly and frequently than offshore production. Global sourcing of basic goods with a low retail price generally increases profits, while that for fashion/seasonal products tends to result in higher lost sales, due to stockouts or higher rates of markdowns on unsold inventories (Kunz, 2010). Global sourcing takes a longer lead time for initial delivery and subsequent replenishments, so it does not meet the rapidly changing customer needs as much as domestic production and/or sourcing (Kunz, 2010). In addition, wages and raw material prices in China are increasing; this encourages the textile and apparel manufacturers to reconsider domestic production as a viable option through reshoring (Friedman, 2012).

The model of BTAF/QR enhances an understanding about merchandising and supply chain management systems with “Made-in-USA” domestic production strategies. Merchandising constituency plays an essential role in formulating product lines, and negotiating internal and external coalitions for resource exchanges that are the firm’s primary source of revenue, while the supply chain constituency plans, develops, and implements supply chain systems for domestic or global production and sourcing (Kunz, 2010). A fully implemented supply chain incorporates time-based competition, agility, and partnering, that may enhance more effective and financially productive domestic production (Kunz, 2010). The fully implemented supply chain provides customer-focused systems, short cycle development, modular production, time-effective deliveries, and interactive organizations that are also essential for “Made-in-USA” domestic production strategy.

3. Literature review
3.1 Offshore vs “Made-in-USA” domestic production strategies
Due to the rising costs of fuel for transportation and the demand for higher wages in developing countries, US apparel firms are considering to adopt domestic production strategies (Kincade et al., 2013). In addition, there has been increased interest in domestic production, based on rising patriotism. Moreover, supply disruption risks that impede supply chain management and associated operations can be more effectively managed in domestic production (Bode et al., 2011; Ellis et al., 2011).

Due to the proximity of the production sites/facilities to retailers/end users, less supply disruption risks, and less tariff-related issues, domestic production has been coined with the uprisng trend of “Made-in-USA” strategies (Bode et al., 2011; Ellis et al., 2011). The Obama administration held a roundtable discussion with business leaders to support Made-in-USA brands (Ellis, 2014) to respond to the high unemployment rate at that time by creating more jobs through domestic production. Wal-Mart has invested in American pride and supports Richelieu’s new investment in state-of-the-art production facilities in Los Angeles. SelectUSA is a US government-wide program operated by the International Trade Administration in the US Department of Commerce (Nash-Hoff, 2016). They attempt to facilitate foreign direct investment to revitalize the economy as well as retain and create jobs at small to large
companies in the US, including a wide range of industry, such as automotive, chemicals, consumer goods, energy, medical technology, logistics and transportation, to name a few (Nash-Hoff, 2016; Richards and Schaefer, 2016). They are focusing on the textiles industry that is one of these 19 industry sectors (Richards and Schaefer, 2016). According to van den Bossche and his colleagues (2014), the apparel manufacturing sector also experienced a five percent increase in reshoring cases from the previous year.

Offshore production strategies may not be the answer for all apparel firms. For instance, prior research found that the size of the company is important when it comes to deciding on the choice of sourcing strategy (Dana et al., 2007; Kim and Rucker, 2005). Dana and colleagues found large firms receive benefits of offshore production strategies, such as cost reduction and increased productivity through labor market differentials, while these were not critical to the smaller apparel firms in New Zealand. Large apparel firms have greater accessibility to quality manufacturers overseas, due to the volume of orders. In contrast, the smaller firms, compared to large firms, have fewer opportunities to find higher quality factories because their quality requirements and delivery dates may not be given priority, making the risks associated with offshore sourcing far greater for smaller firms (Dana et al., 2007).

Desai et al. (2012) concluded domestic sourcing is a viable option for fast fashion firms by providing a quick response to the market demand and relocating the production facilities to create jobs in the USA. They suggested fashion core products, such as designer jeans and t-shirts, would be ideal for domestic production, due to their simpler design and less labor time required for production; yet, these products yield price premiums for firms. Sardar and Lee (2013) also emphasized reshoring through domestic in-house production and outsourcing can have better capacity flexibility, such as shorter lead time as well as reduce risks related to customers’ demand uncertainty; late, unreliable deliveries; corporate social responsibility; and others, while offshoring and/or outsourcing internationally can offer textiles and apparel manufacturers cost benefits, such as lower unit production cost. Sardar and Lee analyzed cost and capacity flexibility, and determined these are the key factors influencing offshoring or reshoring decision.

Based on the literature reviews of prior studies, it was probable that domestic production or sourcing through reshoring may have competitive advantages of financial productivity, especially for fashion products with uncertain demand at the time of production. Domestic manufacturing could yield several benefits, including shortened lead time, less supply chain struggles, reduced distribution costs, improved public perception, and better performance tracking; while barriers of such manufacturing include higher labor costs, unqualified workforce, and limited manufacturing facilities (Piker, 2016). For instance, Adidas’ high-tech Speedfactory returns production of trainers and other sports shoes to Germany that have been offshored to China, Indonesia, and Vietnam (The Economist, 2017). Adidas said its Speedfactory aims to shorten the supply chain from 18 months to less than a week for new product development and production by using high skilled, technological robots, 3D printers, and automated manufacturing systems (The Economist, 2017).

There are many successful stories of reshoring to build brand image to keep production close to the end users/consumers, and to be more agile in terms of lead time and small volume production (e.g. Abnett, 2016). However, to our knowledge, in the trade and academic literature, it is difficult to find empirical suggestions on financial productivity of reshoring. The textiles and apparel firms would need a concrete foundation to make such important decisions to return manufacturing to the home country or not. Therefore, the researchers proposed the following research question to examine the plausible impact of the types of sourcing strategies for merchandising performance outcomes, which, in turn, represent financial productivity:

RQ1. Are there significant differences in financial productivity determined by merchandising performance measures between an offshore production strategy and “Made-in-USA” domestic production strategy?
3.2 Merchandise plan errors between offshore and “Made-in-USA” domestic production strategies

Previous studies proved well-integrated supply chain management through demand re-estimation during selling periods and reorder/multiple delivery strategies can minimize negative impacts of merchandise plan errors, due to customers’ demand uncertainty, such as stockouts, lost sales, and markdowns of unsold inventories (Kunz, 2010; Yu and Kunz, 2010). In the real world of fashion industry, there are merchandise plan errors, which are defined as the difference between actual customer demand and merchandise plan. Merchandise plan errors are broken down to two kinds of errors, volume error and assortment error (Kunz, 2010). Volume error refers to the difference between planned volume and actual demand volume, while assortment error is defined as the differences of assortment factors (i.e. style, size, and color) between planned and actual demands.

Supply chain systems can reduce merchandise plan errors by revising the original merchandise plan to minimize stockouts and markdowns as well as improve inventory turnovers and service level (Fisher et al., 1994; Hunter et al., 1992; Kunz, 1998; Nuttle et al., 1991). Reducing demand uncertainty and merchandise plan errors through supply chain systems is crucial to accurately and quickly respond to customer demands, while minimizing financial disadvantages due to differences between actual customer demand and merchandise plans (Fisher et al., 1994).

Christopher et al. (2004) suggested creating agile supply chain systems in quick response sourcing can enhance responsiveness, resulting in better consequences, compared to offshore sourcing, which secures lower costs mainly. Responsiveness was characterized by short lead time to the end users/consumers, flexible manufacturing and accurate forecasting of customer demands and preferences into the decision process (Christopher et al., 2004). Reasons for this include offshore sourcing typically from lower labor costs and underdeveloped countries incorporates hidden costs, such as long lead time, quality and delivery problems, lower efficiency of operation, last minute use of air freight and logistic costs, child labor, and environmental issues, etc. Lowson et al. (1999) compared two possible sourcing decisions using quick response and offshore sourcing of supply using computer simulation software. They found a quick response sourcing through domestic suppliers resulted in higher inventory turns and gross margin return on inventory (GMROI) than an offshore sourcing; whereas, quick response sourcing resulted in lower gross margin, due to higher production costs than offshoring sourcing. Their results emphasized the importance of speed, flexibility, and responsiveness, rather than low costs, in responding to fast changing customer demands in the fashion market (Lowson et al., 1999).

Zara, a global fast fashion brand, reported 85 percent sell through – percentage of all units offered sold at first price or above at premium price – and high inventory turns by making more accurate forecasting and decisions on product development, merchandising, and sourcing closer to the selling season (Sourcing Journal Guest Editorial, 2017). Cotton USA collaborating with WWA Advisors LLC, an apparel business consulting firm, also reported apparel companies can improve their accuracy of customer demand and improve profits by enhancing speed-to-market rather than lower production or sourcing costs with long lead time (Sourcing Journal Guest Editorial, 2017). Making decisions closer to customer demand with a short lead time is more desirable to achieve higher sell through and inventory turns, especially with today’s “see now and buy now” consumers, who crave instant gratification (Sourcing Journal Guest Editorial, 2017).

Merchandise plan errors, due to demand uncertainty, tend to be augmented because of the longer lead time. Thus, a shorter lead time with higher costs could be more financially productive than the longer lead time with lower costs because a shorter lead time can reduce merchandise plan errors and inventory mismatch, such as overstock or stockouts. “Made-in-USA” domestic production strategies using more frequent multiple deliveries with
shorter lead time may be able to minimize merchandise plan errors more effectively and generate more competitive financial productivity than offshore production strategies with more supply chain-related risks and longer lead time. Based on the literature review, the researchers question the relationships between merchandise plan errors and financial productivity in the comparisons of offshore and “Made-in-USA” domestic production strategies:

RQ2. As merchandise plan errors increase for fashion/seasonal products, are there significant differences in financial productivity determined by merchandising performance measures between offshore production strategies and “Made-in-USA” domestic production strategies?

4. Methods
Simulation has been frequently used in the supply chain and engineering literature. Simulation modeling provides flexibility to model processes and events to the desired level of complexity in a risk free, dynamic, stochastic environment. Sourcing decisions cannot be truly tested in the actual marketplace. Thus, simulation of sourcing decisions serves as an efficient decision support tool for merchandise planners and buyers to reduce uncertainty and adequately handle dynamism in production and distribution of fashion goods in retail supply chain environments (Terzi and Cavalieri, 2004; Yu and Kunz, 2010).

4.1 Developments of offshore sourcing scenarios
Offshore sourcing scenarios involve mass-produced product lines with a broad-base market segmentation, which may not differentiate customers effectively. Mass-produced products imply production of relatively homogeneous products at a large scale with focused assortments. Offshore sourcing scenarios focus on reducing costs and achieving sales goals and profits. Therefore, offshore sourcing scenarios are postulated to employ top-down planning where the executive constituency develops sales goals and dollar investments in merchandise usually for a six-month period. Offshore sourcing scenarios are likely to emphasize merchandise budgets rather than assortment planning.

Using offshore sourcing scenarios, merchandise is globally sourced to reduce costs that cause large, infrequent orders and shipments of desired merchandise in advance of the selling period. Merchandise plans are based primarily on sales history that results in high risk of merchandise plan errors. Offshore sourcing scenarios employ large initial inventories, e.g. 100 percent of initial inventory, and little or no replenishment due to a long lead time, such as two or three months.

4.2 Developments of reshore sourcing scenarios
Reshore sourcing scenarios with domestic in-house production and/or outsourcing are demand driven with priorities on time-based competition, agility, and partnering. These scenarios target segmented markets with modular product lines that imply diverse and replenished assortments, based on customer needs. Reshore sourcing scenario responds more quickly to customer demands with faster, more accurate reorders of merchandise close to or during the selling period. Therefore, reshore sourcing scenarios improve profitability and competitiveness as well as customer service.

Reshore sourcing scenarios involve implementing interactive planning by combining top-down and bottom-up planning because interactive planning is consistent with supply chain management systems. With this interactive planning process, merchandise plans are developed by negotiations among constituencies at the merchandise classification level.
With such planning process, reshore sourcing scenarios result in more accurate merchandise budgets and assortment plans to the stock keeping unit level (Kunz, 2010). Using reshore sourcing scenarios with integrated or agile supply chain management systems, merchandise is domestically manufactured or sourced to implement real time decision making linked to point-of-sale data – small-batch flexible production of diverse products, minimal pre-season retail inventory, re-estimation and reorder of merchandise based on point-of-sale data, in-store style testing, and feedback before launch of new products. Especially, re-estimation and reorder process based on point-of-sales data can reduce merchandise plan errors as well as reduce stockouts, lost sales, markdowns, and residual inventories at the end of the selling season (Lowson et al., 1999).

4.3 Simulation inputs
Based on definitions and conceptualizations of the two sourcing scenarios, Sourcing Simulator™ inputs were developed. Both scenarios have the same inputs in terms of total units to sell, selling period, seasonality, and markdowns/premiums. Jeans were selected because of popularity and applicability to various retailers. For each scenario, the researchers set the recommended selling period for 1,000 units as 20 weeks. Mid-peak seasonality was selected, and no seasonality difference was utilized to focus on investigating the impact of volume error and assortment error on financial productivity between the two scenarios. One markdown of 25 percent at the beginning of week 18 was used to remove unsold stock. The price elasticity of demand was specified at 0.7, which means 1 percent reduction in the price would result in a 0.7 percent increase in the number of customer arrivals. In addition, no additional markup was applied. The same default data for ordering, shipping, inventory carrying, and handling costs were used. However, outcomes related to the costs should be different because these costs are related to inventory and reorder.

To reflect a reduction in labor cost associated with offshore manufacturing, an offshore sourcing scenario employed offshore sourcing with an initial delivery percentage of 100 percent. All merchandise was produced and delivered before the beginning of the selling period so there was little chance of reorder within the selling period (Nuttle et al., 1991). Offshore sourcing scenarios were specified at a lower wholesale cost of $22.00, compared to the reshore sourcing scenario cost of $25.00.

The reshore sourcing scenario allows for a smaller pre-season inventory, as well as re-estimation of customer demand. In-season reorders reduce volume error and assortment error, finally resulting in a reduction in residual inventories, stockouts, and markdowns as well as an increase in inventory turnovers and service level (Hunter et al., 1993). Therefore, an initial inventory of 50 percent was specified with 14 additional reorders. The higher wholesale cost was specified as $25.00 because the reshoring sourcing scenario uses domestic production and/or sourcing to reduce reorder lead time and make in-season reorders.

These two sourcing scenarios were developed as shown in Table I. For each scenario, the volume for stock keeping units for assortments of 2, 5, 10, and 20 were examined with a volume error from −50 to +50 percent by increments of 10 percent and an assortment error ranging from 0 to 50 percent by increments of 10 percent.

5. Results
5.1 Preliminary analysis
Using Sourcing Simulator™, the researchers generated 530 simulations for the study. Simulations include a total data set of 530, concerning the 21 merchandising performance measures for each sourcing scenario. Merchandising performance was measured in different scales, such as dollars and percentages as shown in Table II. Thus, data transformation was
### Table I.

Simulation input data for the two scenarios (continued)
conducted by standardizing the data that fit the different scales (Nunnally, 1967). IBM SPSS Statistics 19.0 was used for data analysis. The principal components factor analysis with an orthogonal, Varimax rotation was conducted to reduce 21 merchandising performance measures into a smaller number of highly inter-correlated factors. Analysis resulted in three key factors with eigenvalues larger than 1.0, which accounted for 94.47 percent of the total variance for these 21 measures. The first factor included 12 items with factor loadings greater than 0.77 and represented the profitability dimension of merchandising performance, which explained 51.8 percent of the variance. The second factor, inventory and costs dimension consisted of six items and explained 27.2 percent of the variance. The third factor, lost sales, included three items and explained 15.5 percent of the variance. Averages of the merchandising performance measures for offshore and reshore sourcing scenarios were used as dependent variables to determine differences of merchandising performance measures between the two sourcing scenarios in the analysis of covariance (ANCOVA).

5.2 ANCOVA
Using the ANCOVA, we examined main and interaction effects of sourcing type, volume error, and assortment error on the three factors for both the research questions. Tables III-V exhibit the ANCOVA results comparing mean scores of merchandising performance measures simulated by the two sourcing scenarios. First, there was a significant difference for the first merchandising performance factor – profitability between the two scenarios: $F(1, 528) = 82.69, p < 0.001$. Additionally, there were significant main effects of volume error and assortment error on profitability: $F(1, 528) = 138.33, p < 0.001$ and $F(1, 528) = 71.52, p < 0.001$, respectively. There were also significant interaction effects of sourcing type by
both volume error and assortment error, indicating the two scenarios’ profitability differed at different levels of volume error and assortment error.

Second, there was a significant mean difference on the second merchandising performance factor, inventory and costs, between the two scenarios, $F(1, 528) = 37.12, p < 0.001$. Additionally, there were significant main effects of volume error and assortment error on inventory and costs, $F(1, 528) = 1172.03, p < 0.001$ and $F(1, 528) = 265.7, p < 0.001$, respectively. There were also significant interaction effects of these two scenarios with both

Table II. Exploratory factor analysis results of 21 merchandising performance measures

<table>
<thead>
<tr>
<th>Factor titles and items</th>
<th>Factor loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td>Liquidation revenue</td>
<td>-0.99</td>
</tr>
<tr>
<td>% Gross margin potential</td>
<td>0.98</td>
</tr>
<tr>
<td>% Sell through</td>
<td>0.98</td>
</tr>
<tr>
<td>% Offering sold</td>
<td>0.97</td>
</tr>
<tr>
<td>% Liquidated</td>
<td>-0.97</td>
</tr>
<tr>
<td>Inventory carrying cost</td>
<td>-0.92</td>
</tr>
<tr>
<td>% Gross margin</td>
<td>0.89</td>
</tr>
<tr>
<td>GMROI</td>
<td>0.89</td>
</tr>
<tr>
<td>Average inventory</td>
<td>-0.83</td>
</tr>
<tr>
<td>GMROISL</td>
<td>0.83</td>
</tr>
<tr>
<td>Adjusted gross margin</td>
<td>0.82</td>
</tr>
<tr>
<td>Gross margin</td>
<td>0.77</td>
</tr>
<tr>
<td>Variance explained</td>
<td>51.77%</td>
</tr>
<tr>
<td>Total offerings</td>
<td>0.99</td>
</tr>
<tr>
<td>Handling cost</td>
<td>0.99</td>
</tr>
<tr>
<td>Cost of goods</td>
<td>0.98</td>
</tr>
<tr>
<td>Total revenue</td>
<td>0.88</td>
</tr>
<tr>
<td>Sales revenue</td>
<td>0.78</td>
</tr>
<tr>
<td>Inventory turns</td>
<td>0.65</td>
</tr>
<tr>
<td>Variance explained</td>
<td>27.20%</td>
</tr>
<tr>
<td>% Service level</td>
<td>-0.97</td>
</tr>
<tr>
<td>% Lost sales</td>
<td>0.97</td>
</tr>
<tr>
<td>% In stock</td>
<td>-0.92</td>
</tr>
<tr>
<td>Variance explained</td>
<td>15.50%</td>
</tr>
<tr>
<td>Total Variance Explained</td>
<td>94.47%</td>
</tr>
</tbody>
</table>

Notes: Liquidation revenue: the revenue generated from all units that were sold off at the liquidation price at the end of the final selling cycle. % Gross margin potential: the ratio of the actual gross margin to the potential gross margin that would have been achieved if all units had been sold at first retail price. % Sell through: the percentage of units offered that were sold at first price or above at premium price. % Offering sold: the percentage of all units offered that were sold. % Liquidated: the percentage of all units offered that remained on the shelf at the end of the final selling cycle. Inventory carrying cost: the average cost per selling cycle of holding inventory. % Gross margin: the ratio of the gross margin to the total revenue. Gross Margin Return on Inventory (GMROI): the gross margin divided by the average inventory investment during the selling period. Average inventory: the average number of units in the store each week. Initial inventory: The average total number of units that were in the store at the beginning of the first week of a selling cycle. Gross Margin Return on Inventory with Service Level (GMROISL): the GMROI times multiplied by the In-stock %. Gross margin: the total revenue less the cost of goods. Adjusted gross margin: the gross margin less the inventory carrying cost, handling cost, shipping cost, ordering cost, and overhead. Total offering: the average total number of units that were delivered to the store for a selling cycle. Handling costs: the average cost per selling cycle to the retailer for having product prepared and displayed once they were in the store. Cost of goods: the average total cost for all goods offered per selling cycle. Total revenue: the sum of sales revenue and liquidation revenue. Sales revenue: the total revenue generated by sales to customers during the average selling cycle. Inventory turns: the average number of times the stock “turn over” during a selling cycle. % Service level: the percent of customers who found their first choice of Stock Keeping Unit. % Lost sales: the percent of customers who left the store after encountering an out of stock situation. % In-stock: the average percent of Stock Keeping Units that were in stock each week.
volume error and assortment error, indicating the two scenarios’ inventory and costs differed at different levels of volume error and assortment error.

Third, there was a significant difference on the third merchandising performance factor, lost sales, between the two scenarios: $F(1, 528) = 55.27, p < 0.001$. Additionally, there were significant main effects of volume error and assortment error on lost sales:

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>277.60</td>
<td>6</td>
<td>39.66</td>
<td>82.69**</td>
</tr>
<tr>
<td>Intercept</td>
<td>23.39</td>
<td>1</td>
<td>23.39</td>
<td>48.76**</td>
</tr>
<tr>
<td>Sourcing type</td>
<td>2.32</td>
<td>1</td>
<td>2.32</td>
<td>4.85*</td>
</tr>
<tr>
<td>VE</td>
<td>66.35</td>
<td>1</td>
<td>66.35</td>
<td>138.53**</td>
</tr>
<tr>
<td>AE</td>
<td>34.30</td>
<td>1</td>
<td>34.30</td>
<td>71.52**</td>
</tr>
<tr>
<td>Sourcing Type x VE</td>
<td>33.05</td>
<td>1</td>
<td>33.05</td>
<td>68.90**</td>
</tr>
<tr>
<td>Sourcing Type x AE</td>
<td>5.85</td>
<td>1</td>
<td>5.85</td>
<td>12.20**</td>
</tr>
<tr>
<td>Sourcing Type x VE x AE</td>
<td>3.30</td>
<td>1</td>
<td>1.65</td>
<td>3.44*</td>
</tr>
<tr>
<td>Error</td>
<td>249.40</td>
<td>522</td>
<td>0.48</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>527.00</td>
<td>529</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Dependent variable: factor scores of the Profitability measures for the offshore and reshow sourcing scenarios. *$p < 0.05$; **$p < 0.001$

---

volume error and assortment error, indicating the two scenarios’ inventory and costs differed at different levels of volume error and assortment error.

Third, there was a significant difference on the third merchandising performance factor, lost sales, between the two scenarios: $F(1, 528) = 55.27, p < 0.001$. Additionally, there were significant main effects of volume error and assortment error on lost sales:

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>499.22</td>
<td>6</td>
<td>71.32</td>
<td>1,334.69**</td>
</tr>
<tr>
<td>Intercept</td>
<td>0.97</td>
<td>1</td>
<td>0.97</td>
<td>18.12**</td>
</tr>
<tr>
<td>Sourcing type</td>
<td>19.88</td>
<td>1</td>
<td>19.88</td>
<td>372.12**</td>
</tr>
<tr>
<td>VE</td>
<td>62.63</td>
<td>1</td>
<td>62.63</td>
<td>1,172.03**</td>
</tr>
<tr>
<td>AE</td>
<td>1.42</td>
<td>1</td>
<td>1.42</td>
<td>26.57**</td>
</tr>
<tr>
<td>Sourcing type x VE</td>
<td>65.74</td>
<td>1</td>
<td>65.74</td>
<td>1,230.25**</td>
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<tr>
<td>Sourcing type x AE</td>
<td>2.11</td>
<td>1</td>
<td>2.11</td>
<td>39.53**</td>
</tr>
<tr>
<td>Sourcing type x VE x AE</td>
<td>5.94</td>
<td>1</td>
<td>2.97</td>
<td>0.56</td>
</tr>
<tr>
<td>Error</td>
<td>27.79</td>
<td>522</td>
<td>0.05</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>527.00</td>
<td>529</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Dependent variable: factor scores of the Inventory and Costs measures for the offshore and reshow sourcing scenarios. *$p < 0.05$; **$p < 0.001$

---

volume error and assortment error, indicating the two scenarios’ inventory and costs differed at different levels of volume error and assortment error.

Third, there was a significant difference on the third merchandising performance factor, lost sales, between the two scenarios: $F(1, 528) = 55.27, p < 0.001$. Additionally, there were significant main effects of volume error and assortment error on lost sales:

<table>
<thead>
<tr>
<th>Source</th>
<th>Sum of squares</th>
<th>df</th>
<th>Mean square</th>
<th>$F$-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Corrected model</td>
<td>364.04</td>
<td>6</td>
<td>52.01</td>
<td>165.95**</td>
</tr>
<tr>
<td>Intercept</td>
<td>4.06</td>
<td>1</td>
<td>4.06</td>
<td>12.95**</td>
</tr>
<tr>
<td>Sourcing type</td>
<td>17.32</td>
<td>1</td>
<td>17.32</td>
<td>55.27**</td>
</tr>
<tr>
<td>VE</td>
<td>60.56</td>
<td>1</td>
<td>60.56</td>
<td>190.25**</td>
</tr>
<tr>
<td>AE</td>
<td>5.95</td>
<td>1</td>
<td>5.95</td>
<td>18.99**</td>
</tr>
<tr>
<td>Sourcing type x VE</td>
<td>16.86</td>
<td>1</td>
<td>16.86</td>
<td>53.80**</td>
</tr>
<tr>
<td>Sourcing type x AE</td>
<td>10.69</td>
<td>1</td>
<td>10.69</td>
<td>34.12**</td>
</tr>
<tr>
<td>Sourcing type x VE x AE</td>
<td>1.08</td>
<td>1</td>
<td>0.54</td>
<td>1.72</td>
</tr>
<tr>
<td>Error</td>
<td>162.96</td>
<td>522</td>
<td>0.31</td>
<td></td>
</tr>
<tr>
<td>Corrected Total</td>
<td>527.00</td>
<td>529</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Dependent variable: factor scores of the Lost Sales measures for the offshore and reshow sourcing scenarios. *$p < 0.05$; **$p < 0.001$
There were also significant interaction effects of these two scenarios with both volume error and assortment error, indicating the two scenarios’ lost sales differed at different levels of volume error and assortment error.

The results showed significant differences for the merchandising performance measures, represented by profitability, inventory and cost, and lost sales, between offshore and reshore sourcing scenarios depending different levels of volume error and assortment error.

Using a scatterplot analysis, the interaction effects of sourcing type by volume error and sourcing type by assortment error for profitability, inventory and costs, and lost sales are visualized (see Figure 1). As volume error increased (more customer demand than planned volume), profitability in the both sourcing scenarios increased. However, with the under-volume error, the reshore sourcing scenario had better profitability, while with the over-volume error, the offshore sourcing scenario had better profitability. As volume error increased, inventory and costs in the reshore sourcing scenario increased dramatically to respond to increased actual customer demands. Inventory and costs in the offshore sourcing scenario kept a consistent level due to 100 percent initial stocking through single delivery before the beginning of the selling period. However, with the under-volume error, the reshore sourcing scenario had a better ability to reduce inventory and costs. As volume error increased, the offshore sourcing scenario had higher lost sales than the reshore sourcing scenario, because the offshore sourcing scenario had no chance to reorder more inventories in a timely manner to reduce a negative impact of over-volume error during the selling period.

**Figure 1.** Differences between offshore and reshore sourcing scenarios on profitability, inventory and costs, and lost sales, depending on volume error and assortment error.

**Notes:** — Factor scores of the merchandising performance measures for offshore sourcing scenario; ---- factor scores of the merchandising performance measures for reshore sourcing scenario through “Made-in-USA” domestic production strategy
As assortment error increased, profitability in the two sourcing scenarios decreased. However, as assortment error increased, the reshore sourcing scenario had a lower rate of decrease in profitability than the offshore sourcing scenario. As assortment error increased, inventory and costs increased more dramatically in the reshore sourcing scenario, compared with the offshore sourcing scenario, while the offshore sourcing scenario had a much higher lost sales than the reshore sourcing scenario.

5.3 Post hoc analysis
Impacts of two sourcing scenarios on merchandise performance outcomes were further examined concerning how much the reshore sourcing scenario can reduce inventory and costs in case of under-volume error and over-assortment error, compared to those for the offshore sourcing scenario. Two-way ANOVAs with Tukey HSD post hoc tests were conducted to examine the impacts of the two sourcing scenarios on average inventory in the two merchandise plan errors – volume and assortment. Average inventory was selected because this indicates the average inventory weekly and closely relates to inventory and costs. Main effects for volume error and assortment error on average inventory was a statistically significant, $F(10, 506) = 18.59$, $p < 0.001$ and $F(5, 516) = 4.51$, $p < 0.001$, respectively. Post hoc comparisons using the Tukey HSD test indicated the mean score for average inventory of the reshore sourcing scenario ($M = 424.18$, $SD = 110.60$) was significantly lower than for the offshore sourcing scenario ($M = 566.58$, $SD = 11.96$) for volume and assortment errors. The reshore sourcing scenario can reduce average inventory by $25.53$ to $43.98$ percent in case of under-volume errors from 0 to $-50$ percent as well as $-24.35$ to $-25.95$ percent in the case of over-assortment errors from 0 to 50 percent, compared with the offshore sourcing scenario.

As an ad hoc case study analysis, additional simulations under specified merchandise plan errors were conducted to compare the impact of merchandise cost differences between the two scenarios based on financial productivity. Cost differences for greater than 20 percent ($27) and less than 10 percent ($24) were simulated in the case of a $-25$ percent under-volume error and a 25 percent over-assortment error. Except for these price changes, the other inputs remained the same as our original simulations. Results show reshoring scenarios with both $27$ and $24$ produced higher GMROI, lower average inventory, higher inventory turns, and lower lost sales than the offshoring scenario with $22$. If the merchandise costs differences are greater than 35 percent, the reshoring scenarios produce lower financial productivity than the offshoring scenario.

However, the offshore scenario did not embrace “invisible total costs,” such as supply chain interruption risks, long lead time, and delayed replenishment. Besides, the $50$ retail price was the same for both offshoring and reshoring scenarios, even if the reshoring scenario had higher merchandise costs. In current pricing practices, apparel companies tend to offer higher retail prices for the “Made-in-USA” products and American consumers are more likely to pay higher prices for the “Made-in-USA” products.

To reflect the current pricing practices for the “Made-in-USA” products in the fashion market, an additional simulation with a higher retail price of $55$, instead of $50$, for the reshoring scenario was conducted. This was intended to examine a financial productivity change when the retail price encompasses the increase in merchandise costs due to the “Made-in-USA” domestic production. Results indicate the reshoring scenario with the increased retail price of $55$ produced the highest gross margin for both scenarios and better GMROI than the other reshoring scenarios with the retail price of $50$. That is, a higher markup used in retail pricing would be suggested for the “Made-in-USA” apparel products to maximize financial productivity. Optimizing markup and retail prices should be critical to keep the reshoring strategy financially superior to the offshoring strategy.
6. Discussion and conclusions

The purpose of this study was to examine differences of financial productivity between offshore vs reshore sourcing scenarios for fashion/seasonal products when merchandise plan errors, including volume error and assortment error, exist due to high uncertainty of customer demands. According to the results, financial productivity, represented by three factors, profitability, inventory and costs, and lost sales – mathematically reduced from the 21 merchandising performance indicators, differed depending on a sourcing decision between offshore and reshore sourcing scenarios as well as on the levels of volume error and assortment error. Comparing these two scenarios, the reshore sourcing scenario through “Made-in-USA” domestic production strategy with multiple deliveries can provide better profitability, including GMROI, by minimizing negative impacts due to under-volume error as well as over-assortment error than the offshore sourcing scenario with single delivery. When more customers were available than planned (e.g. over-volume error), “Made-in-USA” domestic production strategy could increase inventory and costs to respond to the increased actual demand, while reducing lost sales. Increases in inventory and costs deteriorate profitability of “Made-in-USA” domestic production strategy. However, when there were less customers than planned (under-volume error), “Made-in-USA” domestic production strategy maybe more effective to reduce inventory and costs as well as lost sales than may offshore sourcing scenario.

Results from this study contribute to fill a gap in the literature about differences of financial productivity between offshore and reshore sourcing scenarios for apparel manufacturers and retailers, and provide an insight of which decision can be better to respond to uncertain customer demands, while satisfying financial productivity. This study provides a sourcing decision guideline of “Made-in-USA” domestic production strategy under the supply management system. This strategy can be effective to respond to fast changing customer demands, minimize inventory investment and costs, when customer demands have more uncertainty, and reduce lost sales by quickly and accurately stocking inventory at the right time within a shorter lead time. Since customer demands for fashion and seasonal products are unstable and unpredictable, implementing the “Made-in-USA” domestic production strategy can be more financially productive, especially with under-volume error and over-assortment error, in comparison to offshore sourcing option.

Our study’s results provide a full empirical support to the theoretical assertions made by researchers. The “Made-in-USA” domestic production strategy may reduce merchandise plan errors more effectively by shortening the lead time and replenishing smaller quantities subsequently throughout the selling period and be more responsive to consumers’ changing interests or needs (Friedman, 2012). Increased profits result from “Made-in-USA” domestic production strategy, due to smaller, more frequent deliveries of goods, which leads to fewer stockouts, fewer markdowns, lower inventory investments, and better turnover rates (Kunz, 2010; Sirkin et al., 2011).

The findings from this study also theoretically contribute by supporting propositions of the BTAF/QR (Kunz, 2010). According to the results, the “Made-in-USA” domestic production strategy can be more competitive for apparel manufacturers and retailers to increase profitability for under-volume error and over-assortment error, decreasing inventory costs and lost sales by fully implementing a supply chain management system. Implementation of the “Made-in-USA” domestic production strategy in supply chain management systems enables apparel manufacturers and retailers to be more responsive to customer demand uncertainty and merchandise plan errors.

Based on the findings from this study, we suggest industrial implications of offshore vs “Made-in-USA” domestic production strategies. More apparel companies are adopting domestically produced garments and the “Made-in-USA” domestic production strategy would enable apparel manufacturers and retailers to avoid unsold inventory and
markdowns as well as increase a variety of fashionable and seasonal products. This domestic production strategy could be strategic to satisfy diversified, unpredictable customer demands in the US fashion market. On the other hand, the offshore production strategy can be more financially profitable for basic, staple products when customer demands are predictable and greater than planned. Thus, the combination of offshore and “Made-in-USA” domestic production strategies depending on product characteristics will be superior and financially productive to implement only offshore or only “Made-in-USA” domestic production strategies.

The financial productivity of offshore vs “Made-in-USA” domestic production strategies depends on how many improvements can be achieved to minimize inventory investments and costs, while enhancing service level (or reduce lost sales) by having the inventory when customers want it. To achieve a balance between inventory investments and service level, it becomes more essential to develop a new merchandising process internally and externally that can supply a diversified assortment on every order, with shorter lead time and without any costs associated from unnecessary inventory. That is, only a well-planned integration of flexibility, agility, and accuracy in the entire supply chain from raw materials to the ultimate consumer can make the “Made-in-USA” domestic production strategy competitive and profitable.

According to the BTAF/QR, supply chain management systems may be selectively or fully implemented in an apparel firm (Kunz, 2010). In offshore vs “Made-in-USA” domestic production strategies, different levels of time-based competition, agility, and partnering need. The ability of the “Made-in-USA” domestic production strategy could be limited to avoid unnecessary inventory and costs, while also achieving a high service level by serving the inventory when customers want. To achieve this competitiveness, the “Made-in-USA” domestic production strategy requires fully implemented supply chain management systems able to support the agile supply chain from raw materials to individual customers in a prompt, accurate way.

7. Recommendations for further research
There are many potential areas for future research regarding evaluating financial productivity aspects of offshore vs “Made-in-USA” domestic production strategies.

Findings from this study are based on simulation data, due to the infeasibility of testing different sourcing strategies in the marketplace, which may have a gap between simulations and reality concerning the competitive advantages of the “Made-in-USA” domestic production strategy. This gap could be explained, using the historical trade data providing actual financial performance of apparel manufacturers and retailers adopted reshoring or “Made-in-USA” domestic production strategies.

Due to the scope of this study, other merchandise planning factors affecting financial productivity were not included, such as assortment variety and diversity, pricing, number of markdowns/markups, percentage of markdowns/markups, selling periods, number of deliveries, percentage of initial stock, and others. Thus, future researchers could add valuable insight to the academia and sourcing practitioners by expanding this simulation study by incorporating these factors in their studies to examine financial productivity of offshore vs “Made-in-USA” domestic production strategies.

Future studies could expand current findings by investigating the complex levels of lead times through incorporating nearshoring to the mix of reshoring and offshoring tested in the current study. Nearshoring is defined as relocation of previously offshored activities to a neighboring country of the parent company’s home country (de Backer et al., 2016). Financial productivity for reshoring, nearshoring, and offshoring strategies must be further investigated in relationship to demand uncertainty and merchandise plan errors (Mattila et al., 2002).
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Financial productivity issues


Further reading


About the authors

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How citizen influencers persuade their followers

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Abstract

Purpose – The purpose of this paper is to investigate how today’s new type of opinion leaders, “Citizen Influencers” (CIs), persuade their followers by exploring which characteristics contribute to their persuasiveness.

Design/methodology/approach – Combining theories within opinion leadership, celebrity endorsement, product placement and user-generated content (UGC) five source characteristics – namely, expertise, trustworthiness, likeability, similarity and familiarity – are investigated using fashion as an example. A longitudinal netnographic study of ten CIs and their UGC and six focus groups with followers of specific CIs on Instagram are conducted.

Findings – All five characteristics contribute to the persuasiveness of CIs with trustworthiness as the main contributor. CIs persuasiveness lies in their unique ability to encompass two opposing qualities simultaneously: being attainable and relatable like ordinary consumers; being taste leaders with superior, celebrity-like status.

Research limitations/implications – Only qualitative studies within the fashion category have been conducted, wherefore the relative weight between the two qualities cannot be quantified.

Practical implications – When choosing a CI, managers may consider: the amount of followers per CI as an indicator of influence; similarity between follower and CI as it provides the basis for trust; and the CIs personal universe on their Instagram profile as it leverage the meanings associated with the brand.

Originality/value – The key driver of CIs persuasiveness is their trustworthiness which mediates and amplifies the effect of the other four characteristics. CIs’ persuasive power rests upon the balancing act of being relatable and aspirational.

Keywords Instagram, Persuasion, Opinion leaders, Source credibility, Citizen influencers, Source attractiveness

Paper type Research paper

Introduction

The study of opinion leaders and celebrity endorsers has been a recurring topic within the field of marketing communication (e.g. Katz and Lazarsfeld, 1955; Feick and Price, 1987; McCracken, 1989; Till and Busler, 2000) because of their well-documented influence on consumers’ decisions. However, the emergence of social media platforms represents a paradigm shift in marketing communication as they have empowered consumers, not only to interact with brands and other consumers, but also to create and distribute their own user-generated content (UGC) (Christodoulides, 2009; Daugherty et al., 2008). Consequently, the very nature of influence is changing (Schaefer, 2012). Today, ordinary consumers can achieve “likes” and gain an audience of followers in no time. As visual UGC transcends both cultures and languages, photo-based platform like Instagram has revolutionized this phenomenon. These consumers with crowds of online followers represent a new type of opinion leader: citizen influencers (CIs). CIs may persuade followers and influence their decisions through UGC (Schaefer, 2012). Since they represent the end-users of products or services, their UGC is highly credible and far more influential than traditional marketing (Cheong and Morrison, 2008; Eccleston and Griseri, 2008; Liu-Thompkins and Rogerson, 2012).

Since CIs share their UGC with large audiences of strangers it often leads them to achieve a celebrity-like status (Freberg et al., 2011; Wolverson, 2013). Drawing on existing literature on celebrity endorsement (e.g. McCracken, 1989), there is no doubt that CIs have the ability to influence their followers brand attitudes through their brand-related UGC. However, what remains unclear is how the emergence of CIs changes the nature of opinion leaders as we
know them today (Betrandias and Goldsmidt, 2006), and how CIs and their UGC on Instagram actually persuades followers and influences their brand attitudes (Wolverson, 2013). This issue lacks theorization and empirical validation that needs to be addressed. Therefore, the purpose of this study is to investigate how the CIs persuade their followers by exploring which characteristics of the CIs that contributes to their persuasiveness. This study provides a theoretical understanding as well as an empirical investigation of the relationship between the CIs and their followers.

Drawing on the theories on “source credibility” and “source attractiveness,” we discuss five characteristics of the CIs and how CIs use their UGC to make their followers relate to, identify with, aspire toward and feel attached to them and thereby contribute to their persuasiveness. This study focuses on UGC within the fashion area as product placement within CIs’ UGC on Instagram is particularly relevant for, and widespread amongst, visually driven brands such as fashion brands (Beltrone, 2012). Moreover, fashion is a high involvement product category with high perceived risk, especially social risk, making the source of information of particular importance for the user (Percy and Elliott, 2009).

Two different qualitative research methods are conducted to empirically explore the purpose of this study. First, a longitudinal study using the netnography method where ten fashion-focused CIs and their UGC on Instagram are observed and analyzed. Second, six focus groups with respondents that all are followers of specific CIs on Instagram are analyzed.

In general, this study contributes to three streams of literature. First, the literature on opinion leadership where the phenomenon of ordinary consumers influencing an audience of strangers via social media is still relatively unexplored (McQuarrie et al., 2013). Second, the literature on product placement manifested through the CIs brand-related UGC in this study and how this influences followers’ brand attitudes. Third, to the emerging stream of research concerned with the perceived credibility of brand-related UGC and its impact (e.g. Cheong and Morrison, 2008; Dhar and Chang, 2009; Liu et al., 2011).

While previous research has examined these three research areas separately, their interrelatedness is still relatively unexplored, which is unfortunate seen in the light of social media platforms like Instagram. By examining the persuasiveness of CIs in the context of Instagram, this study builds on previous research to make three primary contributions. First, the study demonstrates that all five characteristics strengthen the persuasiveness of CIs, echoing the partial findings of existing research on opinions leadership and celebrity endorsement (e.g. Ohanian, 1990).

Second, it finds that the characteristic trustworthiness is the dominant driver of the CIs’ persuasiveness. Expertise, likeability, similarity and familiarity have, besides their individual effect on the persuasiveness of the CIs, also each an extra effect through trustworthiness. Trustworthiness mediates the four other characteristics and leverages each characteristic’s total effect on CIs’ persuasiveness, which is an important and new finding. Hence, trust builds confidence in the CIs’ expertise and makes followers perceive CIs as reliable and dependable.

Third, the study reveals that the persuasiveness of CIs rests upon two opposing qualities, namely, being relatable and aspirational. Findings show that CIs’ persuasiveness is a balancing act between these two opposing qualities, and probably not an easy one seen from a managerial perspective. Thus, the study underlines that the strength of the CIs lies in their ability to simultaneously encompass celebrity-like status and be ordinary consumers.

Theoretical background
CIs – a new type of opinion leaders
The idea that some consumers are influencers, and have a disproportionate degree of influence on others is referred to as opinion leadership and has been studied for decades (e.g. Katz and Lazarsfeld, 1955; Feick and Price, 1987; Flynn et al., 1996; Lyons and Henderson, 2005). However, CIs differ from traditional opinion leaders as they are “ordinary
consumers” that engage in ongoing communication and share their UGC with a mass audience of strangers online (Schaefer 2012; McQuarrie et al., 2013). They may achieve this audience simply by means of publicly consuming, engaging with products and posting accounts of this consumption. Some even achieve “instafame,” where the fame is based on their social activity (Yates, 2014), a characteristic that resembles that of a celebrity with increasing persuasiveness as a consequence. CIs are highly trustworthy as they are ordinary consumers, just like their followers, with characteristics of independent third party endorsers, who relay information and influence their followers’ decisions through their UGC (Freberg et al., 2011; Eccleston and Griseri, 2008; Greenberg, 2009).

The past two decades, research has studied online influencers, primarily concentrating on two streams: identifying online influencers (e.g. Booth and Matic, 2011; Cai and Chen, 2012; Li et al., 2011; Matsumura and Yamamoto, 2011) and profiling them (e.g. Eccleston and Griseri, 2008; Hsu et al., 2013; Lyons and Henderson, 2005). Various studies have examined why some people exert more influence than others. Some studies have found opinion leader characteristics, such as category knowledge and expertise (Bansal and Voyer, 2000; Gilly et al., 1998; Coulter et al., 2002; Flynn et al., 1996), product involvement (King and Summers, 1970) and tie strength (Brown and Reingen, 1987; Frenzen and Nakamoto, 1993) to have a positive impact on the opinion leaders’ persuasiveness. Other studies (e.g. Arndt, 1967; Bickart, 2001; Berkman and Gilson, 1986; Lee and Youn, 2009) have found credibility and trustworthiness to be of outmost importance to the persuasiveness of opinion leaders. Within the research area of celebrity endorsement, studies have addressed source effectiveness mainly by measuring how source characteristics enhance the persuasiveness of the endorser’s message (e.g. DeBono and Telesca, 1990; Kahle and Homer, 1985; Gupta and Lord, 1998; Kamins 1990; Ohanian, 1990; Till and Busler, 2000; Till and Shimp, 1998).

Research within product placement is also relevant to draw upon when studying CIs persuasiveness as their brand-related UGC on Instagram resembles product placement. Instagram allow brands to be incorporated in the CIs’ UGC and be used or consumed by the CIs in natural settings. The natural settings increase message credibility as it signal richer images, knowledge, and social information about brands compared to other forms of marketing communications (Stephen and Coote, 2005). Hence, CIs’ brand-related UGC content on Instagram can be seen as branded storytelling, where visual and textual elements are arranged to place brands in the plot, making CIs just like characters in a movie. Such storytelling provided by the CIs generates “likes” and comments, but it may also trigger an emotional response that may contribute to the persuasiveness of the CIs.

The framework

Within existing literature on opinion leadership, celebrity endorsement, word-of-mouth (WOM) and product placement, several frameworks with various combinations of source characteristics have been applied to explain why some people exert more influence than others. Two of the most used models are the Source Credibility Model (Hovland et al., 1953; Ohanian, 1990) and the Source Attractiveness Model (McGuire, 1985), which posit that certain characteristics of a source (such as a celebrity endorser or CI) can have a positive effect on the audience’s reception to the conveyed message (Erdogan, 1999). Though there are many personal qualities marketers favor influencers to possess, each of the source models narrow the list down to the attributes that make influencers most persuasive.

The Source Credibility Model focuses on the receiver’s perception of the credibility of a sender (Cheung and Thadani, 2012). Source credibility is the product of two characteristics: expertise and trustworthiness (Hovland and Weiss, 1951; McCracken, 1988; Ohanian, 1990; Senecal and Nantel, 2004). Although moderated by contextual factors, expertise and trustworthiness of the sender have been found to be positively related with consumers’ attitude toward a brand, behavioral intentions and actual behaviors (Senecal and Nantel, 2004).
Another widely used model is the Source Attractiveness Model. Source attractiveness is a function of three characteristics: likability, similarity and familiarity (McGuire, 1985) and reflects the extent to which the receiver identifies with the source and perceives the source as a referent other (Antil et al., 2012). The model asserts that the greater the perceived attractiveness of the source, the more persuasive the source will be (Ohanian, 1990). Source attractiveness may thus be seen to have an important impact on their ability to persuade their followers' and influence their brand attitudes.

Since the purpose of this study is to provide a deeper understanding of the persuasiveness of CIs, the Source Credibility Model and the Source Attractiveness Model are used as a framework and adapted to CIs on Instagram, which never to our knowledge has been seen before.

**Source credibility**

*Expertise.* Expertise is defined as the perceived ability of a sender to make valid assertions (McCracken, 1989), that is, the extent to which a sender is qualified to provide valid and accurate information or discuss a particular subject (Hovland et al., 1953). Opinion leaders are senders that often are recognized as being experts as they have superior product (category) knowledge and experience (e.g. Flynn et al., 1996; Gilly et al., 1998). According to Schaefer (2012), social proof is what makes a person legitimate as an expert in the world of social media. Social proof is small cues that convey authority and define persuasiveness, such as the volume of followers or “likes” (Schaefer, 2012). Hence, social proof is a type of conformity. We argue that cues like number of followers and “likes” resemble expertise on Instagram and that such expertise will contribute to CIs’ persuasiveness. Hence, the following proposition is put forth:

P1. The greater the perceived expertise of the CIs, the more persuasive the CIs are.

*Trustworthiness.* Trust is believed to be among the most critical variables for developing and maintaining well-functioning relationships (Eisingerich and Bell, 2007; Morgan and Hunt, 1994; Selnes and Sallis, 2003). Traditionally, trust is defined as “the expectation held by the customer that the service provider [i.e. the specific CI] is dependable and can be relied on to deliver on his/her promises” (Sirdeshmukh et al., 2002, p. 17). When CIs share their UGC, it resembles WOM communication that traditionally has been carried out face-to-face between two individuals that know each other. WOM communication between strong ties creates an atmosphere of personal connection and confidence that may leverage the trustworthiness of the source and strengthen his/her persuasiveness. Hence, trustworthiness may be more easily built if personal and real connections exist.

However, followers and CIs do not know each other personally. But we argue that the visual nature of Instagram enables followers to feel that the connection with the CIs is real and personal, which builds trustworthiness. Previous research finds that consumers are more likely to be persuaded, when the source is perceived to be trustworthy and communicates in a reliable, honest and sincere manner without bias (Cheung et al., 2008; Kiecker and Cowles, 2001; Chu and Kamal, 2008). Drawing on this, we anticipate that trustworthiness will have a positive impact on the persuasiveness of CIs on Instagram. Hence:

P2. The greater the perceived trustworthiness of the CIs, the more persuasive the CIs are.

**Source attractiveness**

*Likability.* Likability reflects the receiver’s affection for the source as a result of the source’s perceived social value, such as physical attractiveness, personality, behavior, social status, etc. (Antil et al., 2012). In regards to the present study, the aspect of physical attractiveness is of particular interest, as Instagram is visually based. A considerable body of research within advertising and particularly within celebrity endorsement suggests that physical attractiveness
is an important cue in an individual's initial judgment of another person (e.g. Kahle and Homer, 1985; Till and Busler, 2000). The importance of physical attractiveness has also been emphasized in the context of social media. A study based on blogs, for example, found that physically attractive bloggers were often more liked by the blog readers and had a positive impact on blog reader's attitude changes and product evaluations (Chu and Kamal, 2008). Based upon this, the following proposition is put forth with likability representing physical attractiveness:

**P3.** The greater the perceived likability of the CIs, the more persuasive the CIs are.

**Similarity.** Similarity is a perceived resemblance between the sender and the receiver. Similarity of individuals predisposes them toward a greater level of interpersonal attraction, trust and understanding than will be expected among dissimilar individuals (Ruef et al., 2003). In an offline context previous research shows that the more receivers feel that a sender is similar to themselves (or how they like to think of themselves), the more persuasive the sender will be (Kahle and Homer, 1985). In an online context several studies have been conducted (e.g. Brown et al., 2007; Chu and Kim, 2011; Reichelt et al., 2014; Steffes and Burgee, 2009), but findings have varied across platforms. Chu and Kim (2011), for example, find that perceived similarity is negatively related to electronic WOM (eWOM) engagement on social media sites, such as Facebook. In contrast, Steffes and Burgee (2009) find that eWOM sources that are perceived similar are more influential than dissimilar sources within the context of review sites. As the identity of the CIs on Instagram plays a dominant role in their content, a positive relationship is expected to exist between perceived similarity and the CIs persuasiveness. Based hereon we propose:

**P4.** The greater the perceived similarity of the CIs, the more persuasive the CIs are.

**Familiarity.** Familiarity refers to the knowledge of the source through exposure or past association. Familiarity establishes for the receiver a level of comfort with the sender, making the sender more persuasive. Drawing on the concept of parasocial attachment, which is closely linked to familiarity, may help to understand the strength of the one-sided relationship between a follower and a CI, where the CI resembles a meaningful referent other (Russell and Stern 2006). Based on Hoffner’s (2008) study, we argue that even though the relationships are one-sided, followers will often feel that they know the CI just as well as their friends. Consequently, followers tend to identify with the CIs, accept them as models of correct product decisions, product use and personal consumption (Russell and Puto, 1999). Studies of parasocial attachment have been found to increase the effectiveness of brand placements, and have a positive influence on consumers’ brand attitudes (Russell and Stern, 2006). In other words, the more parasocially attached followers are to a CI, the closer they perceive their relationship to be, whereby the persuasiveness of the CI is increased. Hence, the following proposition is derived:

**P5.** The greater the perceived familiarity of the CIs, the more persuasive the CIs are.

**Methodology**

The study used observation through netnography and focus group interviews as data collection methods.

**Netnography**

The conducted netnography was based on Kozinets (2002) method and entailed the observation of ten female CI’s profiles on Instagram. To ensure heterogeneity, the CIs’ profiles were chosen based on the following criteria: a sizeable audience, focus on fashion and fashion brands, and a high level of activity on Instagram. Followers are not limited to geographical borders, why the sample of CIs included international and national CIs.
Furthermore, it was deemed interesting to observe CIs with varying audience size, as to
investigate changes and similarity that may appear dependent on the constantly changing
number of followers. Hence, the following ten CIs are selected (Table I).

The data were collected from the beginning of April 2015 to the end of June 2015. The
data analysis began as soon as the observations started. The data collection and
analysis were thus intertwined. As Kozinets et al. (2010, p. 116) puts it, “data are endlessly
converted and sorted as they are recorded.” The understanding grew with constantly
changing new interpretations and with new experiences emanating from the content. All in
all we analyzed more than 3,000 photos and related comments.

The aspects observed were the types of photos the CIs posted (topics), promotion of brands,
how brands were presented in photos, number of likes, comments by followers, CI-follower
interaction and follower-follower interaction. Comments posted by followers to the current posts
were observed and examined for their sentiment and topical focus; on average, between 40 and
1,000 comments. Even though the chosen CIs’ focus is on fashion, the topics of their content
may range from cosmetics to food. Only photos concerning fashion products were analyzed, in
order to avoid irrelevant data. Both the images and the words of present posts were examined
taste practices. That is, what did the CI’s choose to discuss and not discuss? What kind of
words and phrases were used and avoided? What was the content and style of the pictures
displayed? Furthermore, the observation was extended to encompass CIs’ original posts at the
inception of their profile, which typically are archived on each profile. In total, 20-40 archived
posts were examined, noting differences and similarities in early vs later postings. This made it
possible to observe the CI’s progression, if such existed, and thus how impact may differ.

A comparison method was used to identify emergent themes (Kozinets et al., 2010). We systemically identified compared and analyzed image postings in terms of content, sentiments expressed, and language used, style, placement, and theme. Comparison, first, concentrated on each specific CI, and subsequently the findings for each CI were compared with each other. The ongoing process of comparison, indexing and categorizing resulted in themes and patterns, informed our understanding and made it possible to relate the themes and patterns to the specific theoretical foundation. Analysis continued until no further ideas emerged and all of the data could be encompassed.

Focus group

Six focus group interviews were conducted. The aim of the focus groups was to provide a
greater understanding of the opinions, perceptions, attitudes and behavior of the respondents
on the research issues (Hennink, 2007). The respondents were purposively selected, and
demographic criteria were based upon Instagram demographics (Smith, 2013; Herman, 2014)
with the majority of Instagram users being females within the age group 18-29. The

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<tr>
<th>Profile name</th>
<th>Nationality</th>
<th>Followers</th>
<th>Posts/day</th>
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Table I. Sample of CI profiles

Notes: aAs of June 2015; baverage post/day in the period from April 2015 to the end of June 2015
respondents were divided into three focus groups containing the age group 18-23 and three focus groups with respondents aged 24-29. After having conducted three focus groups within each age group the point of saturation was attained and further data collection was not deemed necessary. All focus group interviews were analyzed with the purpose of identifying a thematic framework, which lastly was related to the specific theoretical foundation. The analysis of the focus groups showed no significant differences between the two age groups, wherefore the findings in the following sections are presented collectively.

Results
An overview of the ten CI's and their profiles and activities are shown in Table II.

Expertise
The respondents were generally reluctant to identify CIs as experts in the fashion world. They identified experts in the fashion system on the basis of an education or career in fashion, thereby viewing designers, magazine editors, etc. as the true experts. Albeit the term expert was deemed inappropriate, CIs were perceived as having expertise, due to their taste leadership and ability to ensemble different brands and products in line with their proclaimed style. This ability was attributed "stylish."

Findings also revealed that a CI's amount of followers was used to grade the CI's level of expertise and capabilities in order to either adopt or reject the content presented. The size of a CI's follower-base thus serves as an indicator of the CI's level of expertise, which in turn affects the CI's persuasiveness positively. For example, "Then they achieve a higher status or a higher rank in the Instagram hierarchy, where she is perceived as a "somebody."

Findings from the netnography showed that over time and as the CIs' number of followers grows, the CIs achieve economic rewards (such as monetary payment and complementary products) as well as social rewards (access to exclusive parties, runway shows, designer open houses and PR in the media). The findings from the focus groups revealed that the higher price level of brands and the more exclusive social access visible in the CI's posts, the higher the perceived level of expertise. Furthermore, the research revealed that once a CI had gained prevalence through the accumulation of economic and social rewards, their expertise seemed to resemble the traditional experts, like designers, magazine editors, etc.

Hence, findings indicate that CIs possess expertise, although this expertise differs from what is traditionally characterized as being an expert. When CIs possess expertise their persuasiveness is heightened. In the words of a respondent: "These girls have mastered fashion and know what is in, so you're definitely influenced by them." This supports P1.

Trustworthiness
Findings showed that CIs were more trusted than other sources, as CIs provided their own opinions and personal expressions. However, findings revealed that if CIs' content lacked a personal aspect, their images were perceived as fake, staged or, as it was stated in several focus groups, "too picture perfect." Picture perfect images had a negative effect on both the trustworthiness of the content and the CI. The findings further showed that the respondents not only scrutinized information if deemed untrustworthy, but also discredited or ignored it by quickly scrolling past it – thus, making the CI less persuasive. The respondents expressed how they normally trusted recommendations from personal connections the most. However, the relationship they had with CIs on Instagram often felt real and personal, making the CIs highly trustworthy. For example, "When I feel it's personal, well that makes it more trustworthy for me [...] And if they made a recommendation, then I would also be more likely to listen to it." Thus, the more trustworthy CIs are perceived to be, the more persuasive they are, which supports P2.

CIs persuade their followers
<table>
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<th>CI-Follower comments</th>
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<tr>
<td>Songofstyle</td>
<td>Outfit of the day or accessories shown</td>
<td>A lot of fashion inspiration, but generally does not write which brands</td>
<td>Sometimes she asks followers for advice, but she does not respond to their comments</td>
<td>Followers help each other</td>
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<td></td>
<td>Food</td>
<td>Much focus on outfits and moods, not so often product setup (like magazines)</td>
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<td></td>
<td>Scenery</td>
<td>Text to images is generally not as informative as others</td>
<td>Followers' comments are very short, mainly giving compliments: &quot;nice outfit,&quot; etc.; I thought it was me for like 2 sec; Jenxwee: I want her life so bad, whatever</td>
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<td></td>
<td>Backstage with celebrities and fashion shows</td>
<td>Uses @liketkit – a program that ensures that when you like her picture you get information</td>
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<td>Lookdepernille</td>
<td>Social pictures with friends and other Instagrammers</td>
<td>Often tagging stores where the product comes from in addition to brands</td>
<td>Answers questions for the brands she is sponsored by (eg, magazine) otherwise not</td>
<td>Followers often tag other followers from their own network to share if they like something</td>
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<td></td>
<td>Close-up product pictures</td>
<td>High focus on brands – almost every image contains products mentioned or brands tagged</td>
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<td></td>
<td>Selfies</td>
<td>Has many competitions for brands</td>
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<td></td>
<td>Outfit and accessories (on her)</td>
<td>Makes references to her blog for more info or links to the brand's own Instagram profile via @application</td>
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<td></td>
<td>Catwalk from fashion shows + backstage pictures</td>
<td>Use occasionally tags on pictures</td>
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<td>Blaireadiebee</td>
<td>Outfit images (outfit of the day) and accessories</td>
<td>Mainly focus on products and stylistic images and less on mood or social images</td>
<td>Many compliments from followers, for example: &quot;You can totally pull off the oversized coat [...] jealous&quot;; &quot;How do you look so stunning even when you are casual?&quot;; &quot;OMG you look great in EVERYTHING&quot;; &quot;You are such an amazing woman! So down to earth and humble! I love you and your style for so many years already! @blaireadiebee&quot;</td>
<td>They answer each other where the products are from if there is any doubt, followers use @application a lot to show products/outfits to each other. (almost all comments)</td>
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<td></td>
<td>Pure product shots</td>
<td>She refers/tags almost the brand</td>
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<td></td>
<td>Fewest mood pictures and seldom product-related (flowers, views, etc.)</td>
<td>She uses the application @liketkit where followers have to &quot;like&quot; the picture to get more info (often)</td>
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<td></td>
<td>Do not post much</td>
<td>Tags brands or stores via @application</td>
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<td>Refers sometimes to her blog</td>
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<tr>
<td>Camtyox</td>
<td>Close-up product images, Outfit images (from where I stand), Social images, mood images, pictures of magazines and other media showing her and pictures from events</td>
<td>In close-up images of styled outfits there is a lot of focus on brands and tagging brands. Otherwise not much info on brands. Camtyox takes many product shots. Here she refers to the brand and sometimes she writes how nice she thinks the product is. For example, “Leopard colorway for the prettiest pump of the season @isabelmarant” She also takes pictures of products in showrooms and refers to the brand. At brand events, she marks the location/referes to the brand profile. In pictures of herself with the clothes on, she tags the clothes. Sometimes she makes a comment after some time with hashtag for the brands she wears. She refers to the blog. Tags via @-application in the text. Tags brands/outfit on the picture. Uses very seldom hashtag.</td>
<td>Approximately 20-70 comments. Most compliments and many compliments the brands. The followers follow with in her life: “have you moved in with @alwaysjudging” She rarely answers followers when they ask where a product is from.</td>
<td>Often, there are other followers who answer where the products are from. Followers @ each other in pictures to demonstrate products. “@jawaseem Check out the shoes”</td>
</tr>
<tr>
<td>Chiaraferragni</td>
<td>Post far more pictures than the rest of the sample of Instagrammers, Close-up product pictures, Outfit images, Selfies, Her own photoshoots of herself.</td>
<td>Focus on makeup and hair products (none of the others does this.) A lot of focus on brands and individual brands more than outfits. Many pictures from photoshoots and events where she has played a public role for the brand. Makes hashtags that are repeated from picture to picture. # theblondesalad [...] added with a destination event or something else. Tags brands/stores via @-application in the text below the picture. Tags brands with hashtags. Refers to blog.</td>
<td>She does not respond to any questions or comments from followers. 300-1,000 comments, many compliments: “Gorgeoouuuuuuassss, I luv you soo muuccchhhhh!!”</td>
<td>The followers have dialogues together. Although she does not answer, they have conversations about where to buy things, who has spotted what prices are, etc. Tags other users to share the image with them. Make commercials among comments.</td>
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<tr>
<td>Rockpaperdresses</td>
<td>Everyday pictures: fashion, food, dog, her home, moods, her family, boyfriend</td>
<td>Brands are often in the background When there is finally a full focus on a product, it is usually something she wants or has just bought/got. Otherwise, brands tend to sneak most into the context of her life Have the most pictures of herself in the clothes in connection with special occasions such as birthday, christening, award show, and so on Sometimes she shows pictures of products from showrooms Make hashtags that go again from image to image #rockpaperhome, #rockpaperdog Few times the brand is tagged via @-application Gives info if asked Brands via hashtags and tagging of image</td>
<td>She asks questions to followers in the caption Rate of her responses and comments exceeds almost the number of comments from others Girlfriend small talk (which series to see, etc) Answer questions and there is dialogue back and forth. She always answers everyone. MANY questions about where to buy it, fit and price. “Wow, I hope you post an image so we can see how to style it” Her followers constantly comment on how beautiful she is, how well they like her, how big an idol she is She asks questions to followers in the caption for example What color scarf she should choose She does not get very many comments, usually only 23 indications that something is nice/sweet/beautiful Many of the comments on her pictures are with her girlfriends. Although there</td>
<td>Many discussions on her profile – about 5-30 comments from follower per picture They ask her about personal things, such as whether she would like to get a tattoo Followers give her advice, wish her goodnight and good morning, ask where she has bought products and prices</td>
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<td>Fundchristofersen</td>
<td>Outfit of the day, from where I stand, pictures of brands in her universe, atmosphere pictures (her cat, food, magazines, etc.), Product shots from where I stand outfit pictures full outfit pictures Many pictures from showrooms Accessories close-ups</td>
<td>Some of the brands she tagger she replies with “thank you” or “&lt; 3.” Hence, it is assumed that it is amplified Tags all the brands in her pictures. Sometimes also the store they were bought in Brands tagged via hashtags Tagging application on the image</td>
<td>She asks questions to followers in the caption</td>
<td>No reactions</td>
</tr>
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<tr>
<td>Tuulavintage</td>
<td>Atmosphere pictures (few)</td>
<td>Not much focus on brands, often images without reference to where it is from; more focus on the surroundings. When she refers directly to the brand it is often staged pictures. Most often she writes what she’s doing and finish it with what she’s “wearing”. She varies between using the @ function and links to websites. She refers to the brand/store’s profile on Instagram.</td>
<td>She does not answer them. But they still ask questions. Many compliments. Followers are attached “You are perfect, and I wish I could meet you,” “call me, I live nearby😊.”</td>
<td>Followers refer their own friends to the picture (WOM) “@ cecilestore check this one!!! “@ annhestermann obsessed !!!!” Followers answer each other where the products are from.</td>
</tr>
<tr>
<td>Wendyslookbook</td>
<td>Fashion, travel, food, friends</td>
<td>Many pictures of herself in clothes, few events, few atmosphere pictures. Almost no private pictures: family, friends, etc. Only friends in relation to events. Very staged images. Once in a while, she says thank you to brands and therefore state that it is amplified. But most of the time she only writes names of what she’s wearing. It is assumed, however, that several brands are sponsored, as several brands are repeated, for example, Armani exchange and Banana Republic. Hashtag and @ application are used frequently.</td>
<td>She never answers. Really many comments to her: compliments “I wanna be here” “And looking beautiful as always. We Love You!” “Make a video on how to wear headbands!” “YOUR style is my inspiration.”</td>
<td>Followers answer each other on where the clothes are from.</td>
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<td>Lauralawaetz</td>
<td>Fashion, many pictures of herself in the clothes but also some packshots, some pictures with other bloggers from events, also many more “private” of friends and holiday pictures.</td>
<td>Much focus on brands. She never writes that something is a gift or that she has been paid to show it. But it is assumed that much of it is amplified. Especially SOS sportswear and Omega that go back to a lot of pictures and everyone is tagged. She always hashtag all products. She never tags. Often she refers to the brand with the @ application.</td>
<td>Followers often ask where they can buy it, what size it has, price, etc. Laura always answers. Many comments about how nice she is/good style she has.</td>
<td>Followers answer each other about which brand the clothes are and where you can buy it when Laura is too slow with answers.</td>
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Table II.
**Likability**

Findings revealed that likability, as a function of physical attractiveness, is an important cue in followers’ initial judgment of which CIs to follow. One respondent, for example, asserted that she rarely followed ugly girls, whilst multiple others viewed attractiveness as a vivid commonality amongst the CIs they followed. Findings further conveyed how physical attractiveness functions as an indicator of status and opinion leadership. As one respondent expressed: “Ugly girls don’t have fashion profiles.” In general, respondents felt more inclined to like and admire CIs that were better looking than themselves. The netnography supported this sentiment, as the majority of followers’ comments were related to the superior physical attractiveness of the CIs, e.g.: “How do you look so stunning even when you are casual?!?”; “OMG you look great in EVERYTHING!!”; “I wanna be her”; “And looking beautiful as always. We love you!”; “I wish I had your hair and your smile!!.” Superior physical attractiveness was found to make the CIs’ fashion style look more appealing and heightening their status as opinion leaders, thus increasing their persuasiveness, which supports P3.

**Similarity**

The focus groups revealed that perceived similarity plays an essential role in relation to a CI’s persuasiveness, as it makes it easier for followers to identify with the CI. In this context, three aspects were found to be of particular importance: physical appearance, fashion style and lifestyle. Physical appearance was of particular importance, as the respondents found it essential to be able to see themselves in the outfits worn by the CIs. One respondent expressed how she felt more inclined to be inspired by her favorite CI than a regular fashion model due to physical appearance: “It is easier to relate to clothes when she is wearing it than when a model is wearing it […] Because I know her and because she has a normal body […] I mean […] She is a normal person.”

Findings from the focus groups also indicated that similarity relates to the CIs’ amount of personal content, which humanizes their profile and makes them more approachable. Findings from the netnography revealed that CIs often try to appear more similar to their followers by downplaying their status and referring to more ordinary aspects of their lives. Some of them also ridicule themselves, which may be seen as a way to appear less distant. The respondents from the focus groups generally found this self-ridicule attractive, as it made the CIs appear more approachable and relatable. However, the CI should still represent something to aspire toward. Some of the respondents, especially the younger segment, actually felt the CIs could become too similar and consequently too approachable. This was apparent for the CI “Rockpaperdresses,” who was being too “normal” and too similar because her content resembled what their own friends or colleagues would post, which diminished her status as an opinion leader. For example, “It’s just like a personal friends’ profile, with everyday life pictures and family moments […] It might be a friend of mine, but then that ‘It-factor’ is missing […] It’s just a little too normal.”

Conclusively, the findings showed partial support for P4, as similarity will only increase the persuasiveness of CIs to a certain point. If CIs become too similar to their followers, they will not be perceived as superior, but instead as too “normal,” which consequently will diminish their persuasiveness. As such, perceived similarity will only enhance the persuasiveness of the CI as long as the CI still holds a superior status.

**Familiarity**

The netnography supported the assumption that followers often become parasocially attached to the CIs they follow on Instagram. The followers often comment with personal messages to the CIs and compliment them, even though they typically will not receive a response, e.g.: “Wow you’re the most beautiful person I know!”, “love you”, “Made me think of you when I saw that kimono in Ganni today!”, “Gorgeousssssssss, I luv you soo muchcccchhhhh!!!”; “have you moved in with @alwaysjudging ?”; “@lookdepernille my no. 1 girl crush.”
This was also supported by the focus groups, where respondents asserted things like: “In some way, you feel like you know these people […] I might even find myself saying ‘hi’ to them in the supermarket!” The respondents indicated two underlying reasons for their attachment. First, the regular stream of private photos creates a sense of intimacy and closeness with the CI, making the CI more approachable. For example, “You know everything about their life. I know where they live and stuff like that. She writes and posts everything. And if you’ve followed her for several years, then you cannot help yourself from thinking about it when she gets a new boyfriend.” As expected, the respondents typically felt most attached to the CIs they had known and followed the longest, and they spoke particularly passionately about the CIs’ private life such as: “I just love her!” and “I am obsessed with her.”

Second, the respondents indicated that the degree of interactivity on Instagram made the follower-CI relationship feel more real and intense. Hence, parasocial attachment increases the persuasiveness of CIs, supporting P5. The respondents’ attachment to their favorite CIs increased the trustworthiness of the CIs, as they felt confident that the CIs had their best interest in mind and would not mislead them. Consequently, the respondents were less critical toward the CIs’ brand-related UGC than they otherwise would have been.

Hence, findings for each proposition are summarized in Table III and can be summarized in the following way: all five characteristics contribute to the persuasiveness of CIs with trustworthiness as the main contributor, and one that mediates and amplifies the effect of the other four characteristics. CIs’ persuasiveness lies in their unique ability to encompass two opposing qualities simultaneously: being attainable and relatable like ordinary consumers; being taste leaders with superior, celebrity-like status. Hence, the CIs’ persuasive power rests upon the balancing act of being relatable and aspirational.

**Discussion**

The findings of this study add to existing literature within opinion leadership by shedding light on the persuasiveness of CIs. A theoretical understanding is given of the relationship between CIs and their followers, in terms of which characteristics of the CIs that contribute to the dynamics and strength of the relationship and increases the CIs persuasiveness. The characteristics of the CIs include expertise, trustworthiness, likeability, similarity and familiarity, which all were found to enforce the CIs persuasiveness and thereby their influence on the followers’ brand attitude. Collectively, when the characteristics of the CIs are positive, then the followers’ attitude toward the CIs are also positive. This may indicate how persuaded the followers are by the UGC conveyed by the CIs. However, utilizing CIs’ UGC as a platform for product placement is likely to be more effective for brands than traditional media, but only under certain conditions. CIs are perceived as fellow consumers, and followers therefore find their recommendations to be more credible than marketing initiated posts. Thereby, when brands are displayed in the CI’s UGC they “borrow” the CI’s audience of followers (cf. McCracken, 1986). Brands are thus able to benefit from the strong relationship between follower and CI, where the followers relate, identify and feel attached to the CI, thereby increasing the persuasiveness of the UGC and subsequently their willingness to buy the brand.

The study revealed two key patterns. First, trustworthiness directly drives the persuasiveness of the CIs, but trustworthiness has also a mediating role between each of the other four characteristics, resulting in CIs being even more persuasive. In other words, each characteristic

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*Table III. Summary of findings*
drives the persuasiveness of the CIs, but each characteristic also drives trustworthiness that amplifies each characteristic’s effect and increases the CIs persuasiveness even further. Second, the CI’s persuasiveness rests upon two opposing factors. Summarized in the words of a respondent: “There are these two factors: relate to and aspire to, and combined that’s what makes the difference.” On the one hand, the “aspire to” factor relates to the characteristics expertise that ensures the capabilities of the CI, affecting the status the CI is perceived to have. Applying Schaefer’s (2012) theory, this study found that the amount of followers, as well as the accrued economic and social rewards, functions as social proof thereby implying authority and expertise. Through social appearances and by consuming brands and products that serve as a distinction to affirm their taste, CIs infer their superior knowledge and validate their status as opinion leaders. Insofar as the taste displays are favorably received and judged as tasteful by their followers. These resources, thereby act to increase the level of expertise or taste leadership of the CI, which in turn increases the CI’s number of followers even further. This positive feedback loop of resources results in, over time that CIs are able to obtain a role within the larger fashion system unavailable to an ordinary consumer. When a CI has reached high levels of economic and social rewards, their status and level of expertise become equivalent to what the respondents originally characterized as experts in the fashion system, such as designers, magazine editors and so forth. Schaefer’s (2012) concept of “social proof” thereby illuminates whereby certain characteristics serve as cues making an ordinary consumer legitimate as an expert.

On the other hand, the “relate to” factor is the persuasiveness of the CI based on the CI’s ability to appear like an “ordinary consumer.” The study revealed that the CIs ability to encompass these qualities is strengthened by the three characteristics parasocial attachment, likeability and perceived similarity. The flow of personal content shared by the CI creates a detailed personal storyline, allowing followers to become deeply knowledgeable about the life of the CI. As one respondent put it: “In the past there existed a distance to people that you looked up to. And now, that distance is diminished because you basically can see her whole life through Instagram.” The storyline, along with the interactive environment on Instagram, induce followers to feel close and connected to the CI, simulating a real and aspirational relationship. This parasocial attachment is leveraged even further by trustworthiness and the total effect resembles that of the followers’ strongest social ties. The personal storyline also exposes followers to the more ordinary aspects of the CI’s life, which induces them to perceive the CI as similar to themselves. The perceived similarity was found to make it easier for followers to relate to the CI as it stimulates an identification process and this heightens the CI’s persuasiveness.

Managerial implications
The two opposing factors substantiate the contradiction between having a superior and aspirational status whilst being attainable and relatable and becomes a balancing act for managers when choosing an appropriate CI. This becomes clear when contrasting the significance of the CI’s ability to appear as an “ordinary consumer” with the finding that CIs can become too similar, when the majority of their posts lack aspirational qualities. In such a case, the CI is considered too normal and reminiscent of the followers themselves. Consequently, the CI’s status will be diminished, because the followers will no longer perceive the CI as an expert. As such, this study revealed that the persuasiveness of CIs is a balancing act between being relatable and aspirational.

Managers may benefit by using CIs as a supplement to or even instead of celebrities when promoting their brands and getting their target group persuaded to buy the brand. The argument is that even though other media or celebrities that take part in the fashion system may have superior status due to their level of expertise, it may be argued that they have less of the ability to be relatable and attainable, hindering the identification process. Unlike the unobtainable, unapproachable supermodels, socialites, or celebrities in fashion magazines, CIs are actual real people in the follower’s own world, virtually displaying how
to wear fashionable items using themselves as models. By encompassing the qualities of ordinary consumers and celebrity-like members of the fashion system simultaneously, CIs are not only extremely trustworthy sources, but they also idealize consumption in the eyes of their followers. Herein lies the CIs’ strength – in their unique ability to encompass both qualities simultaneously – celebrity-like status and ordinary consumer.

Moreover, another managerial implication derived from this study is which criteria to consider when choosing a CI to ensure the optimal outcome of the product placement. Three criteria are of special importance.

First, brands can use the amount of followers per CI as an indicator of which CIs are more influential. If a CI has too few followers, then their reach is limited, and furthermore they may not be perceived as influential or experts by their followers. Thus, their persuasiveness is minimized to that of an ordinary consumer. However, findings revealed that if the CIs were viewed as experts on the basis of economic and social rewards, the CIs gained prevalence and influence equivalent to that of traditional celebrities. The uniqueness of the CIs ability to possess high levels of familiarity, likeability and similarity, while simultaneously having the same reach, status and influence as celebrities is what brands can exploit. Thereby resulting in a marketing initiative that combines the traditional aspects of reach and engagement. It is therefore of importance for brands to investigate the CIs’ previous posts to assess whether there is a considerable balance between aspirational and relatable content.

Second, similarity between follower and CI is a vital enforcer of the relationship as it provides a basis for trust. Optimally, a brand should therefore consider the characteristics of their target segment and whether those characteristics coincide with a prospective CIs’ characteristics. Such segmentation processes guide the brand toward CIs that potentially will have a greater effect on their followers in regards to that specific product.

Third, CIs have the ability to integrate brands into the personal universe of their Instagram profile, whereby the CI and her universe potentially can leverage the meanings associated with the brand. The storyline a CI creates enforces the followers’ parasocial attachment, which strengthens their relationship. It is therefore vital for a brand to choose CIs that share personal content and employ storytelling, as this will increase the CIs persuasiveness. Storytelling makes the product placement easier to integrate in the CIs content, by providing a contextual background, whilst projecting a non-commercial character. Furthermore, brands can examine the narrative and prevailing culture in the CIs profile to avoid incoherent meanings being transferred to the brand.

Limitations and future research
The present study is subject to a number of limitations, which should be considered in relation to the findings. Hence, the findings serve as a starting point for further research to expand and generalize upon. First, the present study has only conducted qualitative research, wherefore the findings cannot be generalized upon. Future research could therefore validate and expand the present findings through the use of quantitative methods. Second, while the study demonstrated that CIs persuasiveness is a balancing act between being aspirational and relatable, the lack of quantitative research made it difficult to determine the relative weight between the two qualities. Future research could thus expand the present study by examining the relative weight of the five parameters through quantitative research. Third, the scope of this study was delimited to only exploring the high involvement product category of fashion and the impact on female Danish followers, wherefore the findings are only applicable within such a context. Had the study chosen a low involvement category or focused on another segment, the findings may have differed from the present ones. In extension hereof, it could be interesting to research whether the relative importance of each characteristic is dependent on the examined product category. For example, if trustworthiness is equally as important within the fashion and beauty segment. Lastly, this present study focused only on the relationship
between CIs and followers and not the relationship between the CIs and brands. Drawing on McCracken’s (1989) criticism of the source models, the effectiveness of brand placements in CIs’ UGC on Instagram may not only be dependent on the relation between the CI and the follower, but also upon the nature of the UGC and the fit between the CI and the portrayed brand. To deepen our understanding of using CIs and their UGC as a marketing channel, it could be interesting to expand the present study by exploring the relationship between CI and brands portrayed in their UGC.

References


Further reading


About the authors
Anne Martensen is a Professor and is interested in consumer behavior, marketing communication and social media. Her articles have often been cited (>3,000 citations). She has been in charge of the completion of several research projects with participation of researchers from Denmark, Europe and Australia, and highly estimated practitioners. Anne Martensen is the corresponding author and can be contacted at: am.marktg@cbs.dk

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Collaborative consumption: a business model analysis of second-hand fashion

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Abstract
Purpose – The purpose of this paper is to analyze the business model of second-hand fashion stores and explore their challenges/opportunities and suggest potential strategies for second-hand fashion retail stores.
Design/methodology/approach – A qualitative research method using in-depth interviews of convenience sample of owners/store managers from within the USA was employed.
Findings – Contrasting the traditional retail stores, customers are the primary partners and suppliers of second-hand fashion stores. These stores retain minimal profits given a business model that typically involves sharing profits with customers. Cheaper price, thrill of finding great deals, value for brands and variety are the primary reasons mentioned by respondents for shopping at second-hand stores.
Research limitations/implications – Limitations include the use of a convenience sample of store owners/managers as well as the research is limited to women and children’s stores. Respondents of the study were from the same geographical region and the characteristics of the redistribution markets may vary in a different region.
Practical implications – As a means to foster textile waste reduction through second-hand clothing business, these stores could adopt innovative revenue streams, additional partnerships, and improved fashion and store appeal that may be effective in increasing profits and the number of customers.
Originality/value – This study is one of the early attempts to examine the business model of second-hand fashion stores, a form of collaborative consumption in the fashion context. The study contributes in promoting second-hand fashion stores as a sustainable business model in the fashion industry.

Keywords Sustainability, Business model, Collaborative consumption, Second-hand fashion stores

Introduction
In recent years, globalization has driven consumption of contemporary fashion products to the highest quantities in history. In the USA alone, the volume of post-consumer textile waste has increased by 40 percent from 1999 to 2009. Moreover, fashion apparel production and consumption depletes natural resources and generates unmanageable solid wastes (Ruppert-Stroescu et al., 2015; Pedersen and Andersen, 2015). Given this increase in textile waste, effective utilization of resources is one of the major challenges impacting the fashion industry. Hence, new sustainable business models and consumption patterns are being created to increase the lifecycle of products.

Collaborative consumption (CC) is an emerging sustainable business approach that includes various business models for sharing rather than owning goods. This approach includes renting, lending, trading, bartering, and swapping of products, services or immaterial resources in the market (Botsman, 2010; Belk, 2014; Möhlmann, 2015; Johnson et al., 2016). Given this CC trend, second-hand sales platforms of fashion products are becoming more prevalent (Mhango and Niehm, 2005). This paper examines the second-hand sales platform as a key CC business model in the fashion industry. Specifically, a business model framework is used to analyze the essential components, such as customers, resources, activities, partnerships, cost, revenue, etc., to understand the challenges and motivational factors influencing second-hand fashion retailing (Pedersen and Netter, 2015).
Literature review

Collaborative consumption

Felson and Spaeth (1978) defined CC as “those events in which one or more persons consume economic goods or services in the process of engaging in joint activities with one or more others” (Felson and Spaeth, 1978, p. 614). Möhlmann (2015, p. 194) further defined CC in reference to an organized system or network “in which participants conduct sharing activities in the form of renting, lending, trading, bartering, and swapping of goods, services, transportation solutions, space, or money”, and it excludes sharing activities that do not involve compensation (Möhlmann, 2015). Botsman (2010) argued that CC could be as significant as the industrial revolution in terms of transition of thoughts about ownership. In this same token, Time magazine listed CC as one of “10 Ideas That Will Change the World” (Walsh, 2011). Therefore, CC is considered an alternative ecological mode of consumption (Botsman and Rogers, 2011) and is expected to transform the way companies think about their value propositions (Botsman and Rogers, 2010).

While Airbnb (space sharing) and Zipcar (car sharing) are some of the popular CC systems in the marketplace, Rent The Runway, Swapstyle, ThredUp, Polarn o. Pyret (Swedish second-hand kids wear website) and Lütte leihen (German clothes leasing company) are examples of CC systems in the fashion industry (Hamari et al., 2015; Pedersen and Netter, 2015).

Building upon this concept, Botsman and Rogers (2010) have grouped various examples of CC into three systems:

1. Product service systems: companies that offer goods as services rather than selling them as products. These enable the privately-owned products to be shared or rented, thus changing the mindset of consumers to usage rather than ownership.
2. Redistribution markets (RM): used goods are moved to where they are needed from where they are no longer needed in systems, such as bartering, second-hand sales platforms, etc.
3. Collaborative lifestyles: like-minded people sharing or exchanging intangible things, such as time, space, skills, and money.

While there are three systems of CC, this paper will solely focus on the redistribution markets system (RM), which includes selling of used goods with or without cash transfer. Given the industry challenge of increased textile waste, RM helps to re-use and resell old products rather than allocating them into the waste system. Furthermore, increase in second-hand sales of garments by 10 percent could save about 3 percent carbon emissions, 4 percent water, and 1 percent waste per ton of garments (WRAP, 2017). Therefore, it significantly reduces the waste generation, and further understanding of this business model will offer strategies for how RM can diminish the textile and apparel surplus.

The purpose of this study is to understand the operations of second-hand clothing retail stores, with the goal of presenting the essential components of a second-hand fashion business using a business model framework. Based on Pedersen and Netter (2015), the application of the business model perspective has served as an advantageous tool for identifying the opportunities and challenges of the fashion redistribution markets. These challenges and motivational factors are highlighted to support this concept as a sustainable business model. This approach also reveals the similarities and differences in the business structure of redistribution markets from traditional retail stores. Lastly, the analysis of the research findings opens potential strategies for redistribution markets.

Second-hand fashion retailing

Second-hand fashion retailing includes an increasing number of consignment stores, boutiques, and concessions that resell already worn garments (Xu et al., 2014). The second-hand fashion
business typically encapsulates a wide variety of retailers, such as consignment stores, thrift stores, and re-sale stores. Consignment stores accept goods on a batch basis and usually pay the owners about 40-60 percent of the selling price of the clothes after selling them, whereas re-sale stores do business by purchasing the merchandise outright from different owners and then sell to customers (Zganjar, 2003). Consignment stores generally focus on upscale quality merchandise and are usually well organized and neatly merchandised. Thrift stores are re-sale stores usually run by non-profit organizations to increase money for charity (Zganjar, 2003). Thrift stores are often less organized with a wide range of products from glassware to women’s wear displayed next to each other in a single outlet (Christiansen and Sneepenger, 2005).

Globally, second-hand clothing trade exists in over 100 countries (Imo and Maiyo, 2012). Specifically, in the USA, cheaper price, wide range of merchandise, and good quality are some of the reasons that attract consumers to re-sale, consignment, and thrift stores (Xu et al., 2014). America’s Research Group contends that about 16-18 percent of people shop at thrift stores annually, and about 12-15 percent shop at re-sale or consignment shops (NARTS, n.d.). Williams and Paddock (2003) found that the traditional second-hand fashion stores such as flea markets and thrift stores were shopped by consumers with financial constraints. However, in recent years, consumers prefer second-hand stores by choice rather than out of economic necessity (Guiot and Roux, 2010). Yan et al.’s (2015) study on second-hand clothes shopping behavior of college students showed that students who shopped at second-hand stores are more environmentally conscious and price sensitive than those who did not shop at second-hand stores. In addition, they generally buy used clothes not only for economic reasons but also to be green, to express a vintage look, and to create their own style.

While understanding the motivations of consumers toward second-hand clothing is important, limited scholarly research has assessed the business model of redistribution systems in the fashion context. Moreover, given the growing popularity of these stores, an understanding of such systems is essential in realizing their potential market. This study is one of the early attempts to understand the business model of second-hand fashion stores and provides insights on the challenges that exist in these businesses.

Research from Cohen and Kietzmann (2014) and Pedersen and Netter (2015) have assessed the sharing concept from a business model perspective, and have, thus, contributed to the commercial market literature through the application of this framework. The current study seeks a similar approach. Specifically, Cohen and Kietzmann (2014) examined the car sharing business model. Based on Boons and Lüdeke-Freund (2013) business framework, they assessed four components of the framework: value proposition, supply chain, customer interface and financial model.

<table>
<thead>
<tr>
<th>Business model components</th>
<th>Business examples: Car2Go and Zipcar</th>
</tr>
</thead>
<tbody>
<tr>
<td>Value proposition</td>
<td>Reduces emissions and congestions</td>
</tr>
<tr>
<td>Supply chain</td>
<td>Original equipment manufacturer vehicles, some programs with electric vehicles and hybrids</td>
</tr>
<tr>
<td>Customer interface</td>
<td>Shift from vehicle acquisition to shared use</td>
</tr>
<tr>
<td>Financial model</td>
<td>More affordable access to a vehicle than owning and maintaining; potential for profitability and exit</td>
</tr>
</tbody>
</table>

**Table I.**

Car sharing business model

**Source:** Cohen and Kietzmann (2014)
Similarly, a recent multiple-case study analysis of Scandinavian fashion libraries has examined the business model of fashion libraries, considering it a viable business promoting sustainability. Fashion libraries are a niche CC business model where members of the library share clothes for a certain period rather than buying and selling them (Pedersen and Netter, 2015). Within Pedersen and Netter’s study, they present a unique perspective of this innovative clothes-sharing concept. Furthermore, by assessing the business model of fashion libraries, the authors offered strategies for mainstream businesses such as building customer relationships and other partnerships. Conducting a similar approach as Pedersen and Netter (2015), the main objective of this research is to analyze the structure and operations of a second-hand fashion store. This research highlights the business model perspective of these stores and has the following goals:

1. to identify and analyze the essential components of second-hand fashion retail stores from a business model framework perspective; and
2. to explore the challenges/opportunities and suggest potential strategies for second-hand fashion retail stores.

This study incorporates Osterwalder and Pigneur’s (2010) business model canvas as an analytical framework to understand the second-hand fashion retailing concept. Osterwalder and Pigneur (2010, p. 14) characterize the business model as “the rationale of how an organization creates, delivers, and captures value.” Based on Osterwalder and Pigneur’s research, the following are the nine specific components used in the business model framework to understand how a company creates, delivers, and captures value: customer segments (CS), value proposition (VP), channels (CN), customer relationships (CR), revenue streams (RS), key resources (KR), key activities (KA), key partnerships (KP), and cost structure (CoS).

- **Customer segments**. CS explains the various groups of people or organizations a business aims to reach and serve.
- **Value proposition**. VP explains the group of products and services that establishes the value for a customer segment.
- **Channels**. CN refer to the ways that a company communicates with and reaches its customers to provide a value proposition.
- **Customer relationships**. CR are the types of associations the business creates with specific customer segments.
- **Revenue streams**. RS are the cash a company makes from a customer segment.
- **Key resources**. KR entails developing and maintaining relationships with segments to earn revenues. KR may be physical, intellectual, financial, or human.
- **Key activities**. KA are the important actions or strategies a company takes part to make the business model work successfully.
- **Key partnerships**. KP are the network of suppliers and partners that make the business model work.
- **Cost structure**. CoS explains all the costs incurred in operating the business model.

**Methodology**

An exploratory study was conducted to address the gap in existing literature in the fashion redistribution markets. The study implemented a qualitative research design to gain deeper understanding of the second-hand fashion retail stores from the perspective of the owners/store managers from consignment and re-sale stores (Lincoln and Guba, 1985). The in-depth interview method was adopted since the study is explorative in nature. Particularly, a qualitative methodology allows for an in-depth investigation of the human experience from the participants’ point of view, and allows participants to present their life situations in their own words (Kvale, 2006). Thus, a qualitative methodology allows for
a more comprehensive assessment of the second-hand store operations through the lens of the entrepreneur/manager. Upon the institutional review board approval from the university, a convenience sample of second-hand clothing stores was solicited through e-mail invitation, based on a list of second-hand stores located in the researchers’ region. This sample was purposefully selected as these participants/sites fit the appropriate setting of the research question (Creswell and Creswell, 2018). After the initial recruitment, other respondents were recruited via snowball sampling, as a few of the representatives had friends who owned either a consignment shop or a re-sale store. Primary data collection included six one-on-one semi-structured, in-depth interviews with owners/store managers of the second-hand clothing stores based in the southeast region of the USA. Given the exploratory nature of the study, a smaller sample size was deemed appropriate since this research was drawn from a targeted population with shared experience. A smaller sample size allows for a more in-depth assessment within the behavioral context (Crouch and McKenzie, 2006). Table II includes information about each respondent, including second-hand store type and number of years in operation. To protect the anonymity of the stores and their respondents, pseudonyms were used.

Each semi-structured interview lasted between 20 and 30 minutes and was audio recorded with the participants’ consent. The interviews began with questions about the origin and background of the stores, key activities of the store, role of the participants, and challenges in the business, followed by specific questions based on the Osterwalder and Pigneur’s (2010) business model framework. Table III presents a few example questions including others that were posed during interviews in relevance to the business model framework.

Upon completion of data collection, all interview responses were transcribed verbatim, analyzed by both researchers, coded based on each business model component and finally categorized and contrasted to structure the data interpretation (Spiggle, 1994; Creswell and Creswell, 2018). Lastly, to ensure that participants’ experiences were documented accurately, the process of participant confirmation was employed, and participants confirmed their statements (Nelson et al., 2002).

<table>
<thead>
<tr>
<th>Name</th>
<th>Store type</th>
<th>Number of years in operation</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rachel</td>
<td>Consignment</td>
<td>18</td>
</tr>
<tr>
<td>Clara</td>
<td>Re-sale</td>
<td>13</td>
</tr>
<tr>
<td>Lata</td>
<td>Re-sale</td>
<td>19</td>
</tr>
<tr>
<td>Emily</td>
<td>Re-sale</td>
<td>5</td>
</tr>
<tr>
<td>Evangeline</td>
<td>Re-sale</td>
<td>4</td>
</tr>
<tr>
<td>Natalie</td>
<td>Consignment</td>
<td>7</td>
</tr>
</tbody>
</table>

Table II. Name, store type, and years of operation

<table>
<thead>
<tr>
<th>Business model components</th>
<th>Interview question example</th>
</tr>
</thead>
<tbody>
<tr>
<td>Customer segments</td>
<td>Who is your target market?</td>
</tr>
<tr>
<td>Value propositions</td>
<td>What are the products/services offered to customers?</td>
</tr>
<tr>
<td>Channels</td>
<td>What are the specific channels or methods for reaching the consumers?</td>
</tr>
<tr>
<td>Customer relationships</td>
<td>How would you describe the type of relationship the customers seek to establish?</td>
</tr>
<tr>
<td>Revenue streams</td>
<td>Do your customers have to pay subscription/membership/usage fees if any?</td>
</tr>
<tr>
<td>Key resources</td>
<td>What are the key resources of the store? Physical assets? Employees?</td>
</tr>
<tr>
<td>Key activities</td>
<td>Describe the important operations within the store.</td>
</tr>
<tr>
<td>Key partners</td>
<td>Who are your partners?</td>
</tr>
<tr>
<td>Cost structure</td>
<td>Which activities of the store are most expensive?</td>
</tr>
</tbody>
</table>

Table III. Interview questions based on the business model framework
Analysis of findings
Consistent with previous qualitative researchers (Hodges et al., 2015; Pedersen and Netter, 2015; Pal, 2016), the categorized and contrasted data have been presented as distinct areas of focus. The following areas are in line with the Osterwalder and Pigneur’s (2010) business model. For the purpose of this study, two of the areas were combined: key partners and resources. This was done because the second-hand clothing retail supply chain involves business owners relying on key partnerships as a major resource to the business. Thus, following are the eight areas of focus that will be discussed to further explain the findings: CS, VP, CN, CR, RS, KR, KA, KP, and CoS.

Customer segments
The participants’ responses suggest that these stores typically entail a customer segment of women from varied age groups. Re-sale stores located around college campuses usually have college age students as their clients who seek high-end items at affordable prices. Women’s clothing re-sale boutiques function based on their specific groups which may be teens, middle, or older women. For Rachel, who owns a women’s clothing consignment shop, it has been challenging to manage consignors across diverse age groups:

Rachel: I sell to women from ages 15 to 90. I work very very hard to get that (right) mix. See, you will find you got the J Crew, Anthropologie, Lilly Pulitzer, Vineyard vines. You know […] Some of my older clients they like to come in and get the Chicos, some of the Talbots aha […] […] Eileen Fisher, and then everything in between you got your Ann Taylor, Banana Republic, and all the boutique brands.

Given Rachel’s variance in customers, ranging from teens to older women, she sources different brands of various styles that could be sold across age groups.

Second-hand stores for children’s clothing have a somewhat different customer segment make up. Usually, these stores have mothers and family members as their customers buying and selling the items that their children have outgrown. Clara, who runs a re-sale store for children’s clothing explained that their clients are usually mothers of different age and economic groups:

Clara: I would say […]. young mothers from 25-35 and […] Its more older mothers from 35 and up and […] grandmothers. We run the gamut of all kinds of economic groups from people on fixed assisted income to people that have money to spend and are just looking for bargains.

The customer segments as mentioned by the participants indicate that there is market for second-hand clothes across all age groups, which motivates second-hand retailers to focus on varied demographic groups and a wide product range to be profitable.

Value propositions
Participants believe that the primary reasons for shopping at second-hand stores include cheaper prices, the thrill of the hunt in finding good deals, and a flair for unusual clothes. Cheaper prices are one of the main reasons for shopping at these stores, which can be well understood from Rachel’s expression of her customers’ opinion for buying gently used clothes:

Rachel: I’ve got women that’re on fixed incomes that cannot afford to go to the mall or to the boutique so they get really nice pieces in here for a fraction of a cost […] and then you have people that come in and they’re like […] they just need some casual clothes […] that they just don’t wanna pay full price.

Rachel discussed that her clients are usually women, who are looking for cheaper attire from well-known brands. Availability of gently used children’s clothes for lower prices in the
second-hand market is an ideal economic and sustainable option for parents, who shop and spend on kids’ clothes frequently, given they outgrow clothes quickly. Lata explains this notion for her customers, who have children:

Lata: You (customers) find lot of good deals especially for kids because they really outgrow their clothes (quickly).

In addition to cheaper prices, the participants shared that the customers are also highly excited to find renowned brands at affordable prices. The consumers of redistribution markets find a great deal of well-known branded and designer pieces at affordable prices, as they are usually marketed at about 50-70 percent off the traditional retail value. As Emily describes this notion:

Emily: We want people to be able to come in and find really nice designer things and not have to pay a lot for them. Really, our company was founded for just middle-class people and their children who couldn’t afford fancy designer labels […] and just sort of being able to find the right brand, find the right fit without having to pay $80 for a T-shirt.

Natalie and Rachel have also found success in their businesses by selling high-end designer brands. These brands include Louis Vuitton, Chanel, etc.:

Natalie: We do fabulous with Louis Vuitton. I mean you look around everywhere there’s something. We do really well with the high-end items.

Rachel: I get the Gucci, I get the Louis Vuitton. I get Prada. I get the shoes, the handbags. You know, I’ve got the David Yurman in here. I think I just want to be that little retail gem.

In addition, second-hand retail stores significantly focus on visual merchandising and put great effort into offering a great store look that enhances the appeal, coupled with a pleasant shopping experience. For instance, Lata described the importance of store environment while shopping for used clothes at their store:

Lata: We definitely want to make sure that our customers have a great shopping experience especially with dealing with a second-hand store […] because sometimes things can get a little cluttered. So with that, we want to make sure that our store stays organized.

She further explained that they are strict about providing a pleasant look and take measures to avoid clutter, thereby preventing an undesirable perception of shopping for old clothes. The respondents of consignment shops mentioned that they prefer to buy neatly pressed clothes and on hangers that are ready to go the shop floor. Rachel was proud to share that the uniqueness of their store is that they do not look like second-hand stores and they confidently keep it tidy and organized. They also have regulations in buying things, and they not only check for stains and damages, but also avoid buying crumpled clothes:

Rachel: Everything needs to be neat, clean, and organized! A woman can come in and go […] ok I’m looking for short sleeve purple blouse you can go to the short sleeves […] they are all color coded […] find which you are looking for […]. It’s all sized. I don’t like everywhere in the store, just put everything purple together I like for to be sized and grouped. I just want them to have a pleasant shopping experience.

One of the best features of second-hand retail stores is that they are pretty flexible in terms of merchandise and they generally offer anything from the mall brands to boutique brands and high-end designer brands, such as Louis Vuitton, Michael Kors and Chanel etc. As Emily explains, they have no restriction on brands and the uniqueness of their stores is that they offer wide variety of products and styles as they source from different places:

Emily: So we get a lot of different kinds of things in then we had Louis Vuitton in here before which is a really expensive brand but then we also do stuff from Wal-Mart, so it’s a very wide range.
These re-sale stores have varied collections of styles and products, which is unique for second-hand retailers unlike traditional retailers. In line with Emily’s statement, they have clothing collections ranging from expensive Louis Vuitton to everyday Wal-Mart brands all in one place. This instills excitement and adds on shopping convenience because customers find numerous styles at affordable prices in a single store.

**Channels**

Second-hand clothing retailing is often executed within traditional brick-and-mortar physical stores. In that same vein, most of the respondents, including re-sale and consignment shop owners, use a single physical channel for their store operations. The participants were asked about the various levels of channels used, and revealed that they also use other online platforms such as social networking sites for marketing and advertising.

While most of the respondents mentioned the physical store, some respondents mentioned trying other avenues such as selling items online but were not successful, as it became complicated for them to handle both the physical store and online sales. Natalie, who runs a re-sale boutique, tried selling online but suspended online operations as she felt overwhelmed operating both the physical and online store:

Natalie: We stopped selling online. It was just too much with opening this store and then selling online [...]. I was doing too much so we stopped that.

Operating a second-hand retail store is complicated, as it involves a different supply chain of acquiring merchandise from consumers and signing agreements with them, in addition to regular store operations. Given the complication of the supply chain, many second-hand retailers do not foresee opening multiple locations. Rachel, an entrepreneur who has been running a consignment shop for about 18 years, described operating a physical store as labor intensive. From her perspective, her challenges involve buying and consigning a wide variety of products, and maintaining consistent customer service. Hence, managing multiple stores may reduce the quality of service:

Rachel: One consignment shop is so much work. I want to do one shop and do it well. I have seen my competitors open multiple shops and inevitably something slides [...]. The quality, the condition [pause] something slides because they can’t be in two places at once. So as of right now, I do not have any plans to open another store.

For Rachel, the risk is much too great to open a second location as this may tarnish the quality of her overall business. Thus, owning and operating one single location successfully is her primary focus. In this same vein, participants in this study predominantly functioned under the single channel of a brick-and-mortar store.

**Customer relationships**

Second-hand retailers offer consistent customer service and use social media platforms such as Facebook and Instagram as one of the primary means for engaging with customers. Quite often, they post pictures of new arrivals on the store social media sites. This allows them to keep up with the pace of the fashion trends amidst their competitors. Re-sale stores who could afford to also ran commercials through television and radio. For example, Evangeline described that their important means of marketing included social media and radio advertising:

Researcher: What are your advertising or marketing strategies?

Evangeline: It’s all on Facebook, Instagram and Pandora. Pandora is a great one. We all have Pandora Radio Station on our phones. So it makes it a great way to advertise [store name] during the commercials.
Interestingly enough, some consignment shops and small stores could not afford such marketing due to restrictions in their business. Others felt that people were being bombarded with so much advertising that they would rather retain existing and attract new customers primarily by word of mouth. For example, Rachel is content with marketing primarily by word of mouth:

Rachel: Honestly, it’s just more than anything word of mouth. You know, you can advertise. I know a lot of the franchises that advertise on radio, but for a small store like me, I cannot afford the prices you know for radio and television. So, mine is more word of mouth and people coming into my store, it loving and saying hey I’ve got some items that I’d like to consign.

Maintaining quality customers and a long-term relationship with them is significant for second-hand retailers since customers are the primary source of their merchandise. That is, customers are their lifeline since they acquire and sell merchandise based on their customer base. Given this, often second-hand retailers implement strategies to drive loyalty.

When asked about the strategies offered by the retailers for repeat customers, the participants mentioned that they offer a variety of loyalty and reward programs such as 20-25 percent off the retail value to encourage repeat customers. Evangeline discussed this type of loyalty program for her re-sale store:

Evangeline: We offer a ‘Rewards program’. So every time they come in, every dollar spent is a point and after 250 points we reward our customers with a 20% OFF coupon. So, pretty much, it helps us a lot for getting customers to come back […] and they get so excited about it […]

For Lata, retaining repeat customers is critical for sustaining their business and is one of the key challenges in running the store:

Lata: The key challenges? [pause] Just keeping the customers coming in […] because they are the main reason I guess [store name] is running. They are the ones who bring us the merchandise to sell, so we want to keep them coming back and with more stuff.

As Lata explained, a key challenge to keep their store running is that the customers have to be retained by revisiting as they are the suppliers of the merchandise. Hence, loyal customers are essential to sustaining the business.

Revenue streams
The major revenue for second-hand clothing stores comes largely from sales. Most of the respondents do not charge memberships or any other form of subscription fees for customers. However, consignment shops usually include startup fees. Some consignment shops make customers pay a one-time startup fee and sign a contract that allows them to consign long term. There are also a few stores that include buyer’s fees added in their retail price.

For the large majority of the respondents, their primary source of income for second-hand clothing stores comes from general in-store sales, although a few consignment shops earn profit by selling online and organizing fashion shows. Rachel explained her source of income from online sales and fashion shows:

Rachel: I mean I do […] you know […] sell things online and then of course some from the fashion shows but no other (venues) than that […] (store name) is it […] it’s a consignment shop. And that’s that’s where everything (income) comes from.

Rachel generates income by selling some clothes online and conducting fashion shows, however, she insisted that her boutique is a consignment shop and her sole income is focused on consigning used clothes. Thus, like the majority of the second-hand clothing store respondents, in-store sales are their chief revenue stream.
Key partnerships and resources
When asked about their supply chain, participants consistently referred to customers as their partners and suppliers. The customers or the consignors from whom they buy goods become the primary suppliers of second-hand retailers. For example, Clara described that the customers who come to sell and/or buy become their exclusive supply chain:

Clara: (My store operations involve) a supply chain of people just like you and me that come in here with clothes.

Consignment shops usually sign contracts with customers to retain long-term relationships and, hence, continue business. Second-hand clothing stores consider maintaining long-term relations with customers, which is an invaluable resource because great customer service encourages them to visit again. For instance, Lata explained their potential business opportunities due to great customer relationships:

Lata: (If) You provide good customer service the first time, more than likely they are going to come back again. And they may even just tell a friend about us also [...].

Similar to traditional clothing stores, second-hand stores must have great customer service to keep them visiting. Nevertheless, for second-hand stores, customer service could be deemed even more important, since customers are their “partners” for acquiring the merchandise and a part of the store’s supply chain.

When asked about their partnerships, owners of re-sale stores discussed that they sometimes collaborate with one another to run similar sales promotions in various locations. They also network with one another and advertise in magazines and newsletters. A few re-sale stores conduct fashion shows, such as those described by Emily, to further partner with designers and display sizing samples:

Emily: Our owners occasionally do fashion shows in different parts of the country. The last one they went to was in Las Vegas, and they order just sort of bundles of like sizing samples and stuff from designers. So we have some products that are brand new and we usually price (them) little bit higher. But we can still price it cheaper than what it sells for in the traditional store because they are sizing samples rather than the actual product.

Key activities
Unlike traditional retailers, second-hand clothing retailers buy merchandise from customers and either consign them or offer cash. The price of the second-hand merchandise is usually estimated using software that fixes the price based on the product, style, and brand. Some consignment shops also do home visits where they buy high-end designer pieces not only to retain clients with high-end items, but also to acquire a good reputation. Emily described the typical activity of buying for their store:

Emily: I would say we do buys every single day. So, from open to an hour before we close, we are taking in merchandise that people want to come and sell.

Participants expressed similar sentiments to Emily, regarding the majority of their day-to-day tasks involving buying. Furthermore, most of the respondents shared that they buy clothes after thoroughly checking items. The gently used clothing and accessories such as shoes, handbags, jewelry, and toys are bought after thorough inspection to avoid stains, holes, and damages to the goods. Clara described the importance of checking the items that are bought for her store:

Clara: Our main tasks are to intelligently look through the things and find out if they are indeed gently used and find out if there are any spots or holes, or buttons missing or anything like that and to glean through and find things that are very sellable.
In addition to inspecting goods, second-hand retailers also seek to have balance in their merchandise. For instance, buying merchandise also requires a balance based on all products/styles in the store, and has to be gauged based on their past sales. Consequently, if a sweater dress is in stock and has not yet been sold, it is usually avoided on the buying list. Given this, revenue for second-hand retail stores also depends on efficiently planning and buying the right merchandise based on the inventory of goods. Evangeline describes this process:

Evangeline: We check for items that people could have purchased in the last one to two years […] meaning the items are still in style, as well we look for good condition. When it comes to buying, we always check our inventory levels (on that item) […] because sometimes we have a lot of a certain item and if we have a lot we have to slow it down.

Cost structure
The costs involved in running a second-hand business include operational costs similar to those encountered in traditional retailing such as rent, utility bills, payroll, etc. For most of the respondents, the store rent, utilities, and payroll were the most important costs inherent in the business. For instance, Natalie described her expenses in detail for her business operations:

Natalie: Rent is very high, payroll is high […]. lots of my employees have been with me since I opened. They are like family and I wish I could pay them more, but I can’t. We also employ a bookkeeper. I mean there’s so many expenses […] so many expenses. I mean just shopping bags like when it’s time to order shopping bags […] it’s like couple of thousand dollars.

Similar to Natalie, many respondents stated that their occasional expenses are similar to traditional clothing stores and includes lists of supplementary things such as postage, store remodeling, storage, and purchase of hangers, bins, and shelves. In addition to paying the similar brick-and-mortar store rent and utilities, earning considerable profit equivalent to traditional retailers is difficult for second-hand retailers. This is because their business model usually involves either buying or consigning. Moreover, in a consignment shop the customer signs a contract with the store to become a consignor and the garments are consigned generally for a period of three months, which is then merchandised for sale during the three-month period. Within this consignment system, the amount earned by selling a garment is generally shared between the consignor and the retailer in 50:50 ratios. If the garment is not sold, then the unsold garment left in the store for more than three months is usually donated for charity. Thus, second-hand retailers spend a considerable amount on buying and consigning as the business must typically pay a 50 percent share of their sales. This sharing of profits between consignor and retailer sets a second-hand retailer apart from a traditional brick-and-mortar retailer. Lata, a store manager at a re-sale store selling second-hand children’s clothes, in fact stated that sometimes they spend more on buying clothes than reselling:

Lata: Sometimes we are slow like right now we are in slow month. And, so probably we are paying out more to our vendors than we are making in sales.

Some second-hand retail stores have an additional expense of procuring new items that are sold along with gently used clothes. For example, some re-sale stores spend on buying new clothing accessories that are popular among consumers, as there is viable interest for such items. Evangeline revealed that they also offer new merchandise such as jewelry in their product range as an addition to the store’s second-hand merchandise:

Evangeline: Our jewelry sells really fast and sometimes we don’t get enough so, we order from wholesale […], and we just put it on the floor to sell it (in addition to second-hand merchandise).
A considerable amount is spent by the re-sale stores in buying new accessories such as jewelry, sunglasses, etc., which incurs much cost unlike used second-hand clothes. These new products tend to be popular and a costly segment of the retail store.

Discussion
Given the widespread presence of second-hand clothing stores attracting a variety of customer segments, there is growing trend for this type of CC. The participants’ responses suggested that starting a second-hand clothing store does not require big capital funds and are usually run as a single channel physical store. Thus, the data implies that these second-hand shops are ideal for entrepreneurs who do not have a large capital to start a business. Further, entrepreneurs could target either business model of consignment or re-sale store, given the best fit for their regional market. Although the costs incurred in operating second-hand stores are similar to traditional retail outlets, they do not make considerable profits like traditional retailers because the business model typically involves sharing profits through a 50:50 ratio system with the customers. Based on the analysis of the data of the components of the business model, we suggest the following potential strategies for the second-hand fashion stores.

Promising customer segments
The study suggests that the customers are predominantly women across diverse age groups, who engage in frequent shopping for clothes at reasonable prices. Children’s clothes are a promising apparel category to target in the CC model, as children outgrow their clothes quickly and parents often look for a place to buy and/or recycle them. In line with previous researchers, the results suggested that college students shopped frequently at second-hand stores for cheaper options as they are price sensitive and care more about looks (Xu et al., 2014; Pedersen and Netter, 2015). Hence, young consumers are indeed a sustainable market for second-hand business. Additional findings based on comments from participants suggest that the consignors have also tried including a men’s section within some stores, however approaching this demographic did not deem itself profitable for the specific stores within this study.

Customer relationships as resource
Unlike the traditional retail stores, customers are the primary partners and suppliers of second-hand stores. Regardless of type of second-hand retailers, retaining existing customers is one of the critical challenges of such businesses. Thus, customer service is highly valued as it encourages them to visit again. Since the customers sell the merchandise to the store and become part of the store’s supply chain, there is an essential need to retain the existing customers. According to the study, second-hand retailers offer many loyalty and reward programs to encourage them to come back to the store. They also keep the customers engaged with the activities of the business such as promotional events that help to spread the word about them to friends and family. Ensuring great customer service and offering benefits for loyal customers are an integral component of the business, as customer relationships impact the very existence of the second-hand store format.

Innovative revenue streams
Major revenue for second-hand stores comes from selling the clothes in the store. However, some consignment shops such as the one owned by Natalie earn by selling online. According to the business model, these stores spend money in buying and consigning. Hence, second-hand stores will have to look for other sources of income to manage the expenses and make reasonable profits. One viable channel of operation could be online sales through their websites so that they would cover a wider geographical area rather than a
restriction within their locality. They could also benefit from selling new merchandise, such as clothes, jewelry, and other accessories, which would allow customers the option to choose between new and second-hand clothes.

Additional collaborations
The interviews revealed that consignment shops sign contracts and maintain long-term relationships with customers as a part of the business model. This causes customers to visit often, and promote sustaining the business. These retailers could think of partnerships with local designers, boutiques, major retailers, and brands to source their merchandise such as sizing samples, surplus inventory, and off-season clothes. Moreover, college students are a major share of second-hand customers. Thus, they could collaborate and offer membership schemes with local colleges and schools to encourage them to shop and sell frequently.

Economic values
Cheaper price and the thrill of finding great deals are some of the major reasons for apparel consumers to engage in second-hand clothing shopping. Consistent with the previous researchers, the responses did not show any environmental concerns among the customers and retailers (Xu et al., 2014; Möhlmann, 2015). Thus, saving costs took precedence over environmental matters. In addition, the second-hand business model offers customers a great way to make money because customers can get cash by selling clothes, they no longer wear. Therefore, the CC business model offers economic interests for customers in two different ways: cheaper prices of well-known brands and making money by selling used clothes. According to the study, both re-sale and consignment stores have a considerable number of customers who are excited about shopping fine boutique brands at lower costs. Hence, second-hand fashion retailers could implement a variety of attractive price deals and discounts to motivate the customers.

Fashion and store appeal
Similar to Weil’s (1999) study, the interviews suggested that people are interested in shopping at second-hand fashion stores for buying unusual clothes and luxury brands such as Chanel, Louis Vuitton, and Prada at an affordable price. Thus, the consumers shop second-hand clothes for the fun and excitement factor of finding a deal on expensive brands in addition to economic benefits. In line with Pedersen and Netter (2015) study, selection of brand and style of merchandise that are still in fashion, positively influences the second-hand fashion business. In addition, results showed that these retailers focus hard on organizing merchandise and store look to offer a pleasant shopping experience, thereby avoiding a negative impression of shopping second-hand clothes. In fact, most of the respondents stated that creating a welcoming, neat, and organized store as one of the success factors of their stores. Therefore, store look also plays a significant role in attracting customers without giving the perception of buying used clothes.

Conclusion
The purpose of this paper was to explore the opportunities and challenges of the fashion redistribution markets by conducting an exploratory study on the second-hand fashion stores. The findings reveal that unlike traditional fashion stores, second-hand stores have customers as their primary partners and suppliers in the supply chain. Retaining existing customers and increasing profits are the primary challenges faced by second-hand retailers. Therefore, more focus on customer service and relationships may become a valuable resource to the business. Innovative revenue streams could help in increasing their profits and overcoming financial constraints. The analysis of the data also revealed that the second-hand stores offer considerable economic interests to customers by selling well-known brands at cheaper prices. Hence, consumers’ economic benefits are the significant drivers of the second-hand fashion business.
Our research findings, thus, confirm that this type of collaborative fashion consumption is a viable business model and fosters sustainability by increasing the product lifetime and reducing the post-consumer textile waste. Lastly, this study contributes to the CC literature by highlighting the economic values of the second-hand stores, and encourages apparel businesses in this field to rethink and further explore existing business practices and models. Our research also brings to light the need for more partnerships and knowledge sharing across the mainstream fashion industry and second-hand stores.

While some limitations exist within this study, future research could address a diverse sample of second-hand retail men’s stores in addition to women and children stores. Future research could also include assessing second-hand retailers who sell online, as it may reveal interesting perspectives of one of the fast-growing apparel businesses. Lastly, all the respondents of the study were from the same geographical region and the characteristics of the redistribution markets may vary in different regions. Thus, future research could include respondents from different locales.

References


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Price and perceived product quality: a comparison of denim jeans in three price categories

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Abstract

Purpose – The purpose of this paper is to compare a set of product specifications to evaluate appearance and performance characteristics of denim jeans at three price categories, and identify any relationships between price and product quality.

Design/methodology/approach – This research is as a quasi-experimental laboratory study. The product specifications of jeans are identified. Next, the appearance and performance characteristics of jeans are examined initially and after one and five repeated laundering cycles. The data are analyzed within and between each price category to identify any possible relationship between price and product quality.

Findings – The price category of jeans does not necessarily reflect different dimensions of product quality. Although higher priced jeans had superior product specifications and visual appearance, they did not show superior performance with respect to all elements of fit, durability, and color performance when these three factors were measured through laboratory testing.

Research limitations/implications – The limitations of this study from a research perspective include a small sample size, gender-focused sample selection, and the focus on only three retail categories. These limitations impact the generalizability of the results but could serve as a basis for similar studies. The evaluated product quality attributes were limited to intrinsic/measurable characteristics. Future studies should consider the extrinsic attributes of quality, especially as they are related to consumer’s purchasing decision.

Practical implications – Retailers in moderate and budget price categories can benefit from educating consumers about the quality attributes of jeans that would ultimately influence their post-purchase experience and are not necessarily related to the product’s price category. Educators can use this information to assist in teaching students about the multiple dimensions of materials and assembly choices, and how this will impact their final products as they are learning the apparel product development process.

Originality/value – The focus of this study on the quantification of intrinsic product attributes is unique and provides measurable data for product evaluation by consumer researchers and industry. The results of this research identify the strengths and weaknesses in the appearance and performance characteristics of jeans in different price categories, and how those may affect consumers’ purchase intention.

Keywords Prices, Quality, Denim, Specifications, Jeans

Paper type Research paper

1. Introduction

In 2016, the sales of denim jeans for men and women in the USA were approximately $17.6 billion (Euromonitor, 2017). According to the Cotton Incorporated Lifestyle Monitor™ (2016) Survey, on average, each consumer in the USA owns about six pairs of denim jeans (Cotton Inc. Lifestyle Monitor™ Survey, 2016), making denim jeans one of the most popular apparel items in consumers’ wardrobes. Denim jeans are viewed as durable, comfortable, classic, hardworking, and reliable (Little, 2007). Jeans have made a successful transition from
When purchasing jeans, quality is a primary attribute identified by consumers in their purchasing process (Bell, 2008). Researchers report that consumer perception of product quality is multi-dimensional, and there is a significant positive relationship between “extrinsic” attributes such as: price (Darke and Chung, 2005; Heisey, 1990; Swinker and Hines, 2006); brand (Grewal et al., 1998; Hines and Swinker, 2001; Homer, 2008; Romeo, 2009); store image (Vahie and Paswan, 2006); sales promotion (Darke and Chung, 2005); and perceived product quality. Consumers often believe that higher-priced brands of apparel have better quality levels (Calvo-Porral et al., 2015; Chang et al., 1996; Swinker and Hines, 2006). To most consumers, higher-priced jeans are associated with higher quality and are expected to provide superior fit and styling (Davies, 2005). However, “intrinsic” attributes such as: appearance and performance dimensions including colorfastness, fabric, and seam breaking strength, and dimensional change are also related to product quality, but are more challenging for consumers to measure because they can only be determined through professional evaluation of the product (Bubonia, 2014), before it goes on the market to consumers.

The popularity of premium denim jeans is increasing among young professionals who are inclined toward wearing casual apparel in the workplace. According to the Cotton Incorporated Lifestyle Monitor (2015b), 39 percent of men are willing to wear a “nice looking pair of denim jeans” in the workplace. Male consumers also indicated that fit, comfort, durability, and quality are the most important factors influencing their jeans purchases (Cotton Incorporated Lifestyle Monitor, 2015a). Such consumers would pay an additional price for specific apparel brands because they perceive them to be of high quality. However, there is little evidence to suggest that the intrinsic attributes of denim jeans such as appearance and performance have any relationship with retail price and therefore perceived quality.

2. Purpose
The purpose of this study was to compare a set of product specifications, and evaluate appearance and performance characteristics of denim jeans at three price categories in order to identify any relationships between price and product quality. The research objectives for this study were:

(1) to compare a pre-defined set of product specifications of jeans at three price categories;

(2) to evaluate the appearance and performance characteristics of jeans at three price categories before and after home laundering; and

(3) to compare the results within the price categories to determine any relationship between price and product quality.

3. Review of literature
Quality is a multi-dimensional complex concept, and no single definition can reflect its various concerns. Quality can be defined as “those features of products which meet customer needs and thereby provide customer satisfaction” (Juran and Godfrey, 1999). According to Garvin (1984), five major approaches to define quality are: the transcendent approach, the product-based approach, the user-based approach, the manufacturing-based approach, and the value-based approach. In the textile and apparel industry, the quality dimensions of a product are often divided into the following five categories: performance, durability, serviceability, conformance, and aesthetics (which includes appearance) (Bubonia, 2014).
Different dimensions of product quality are employed by consumers as an evaluative criterion (Cotton Incorporated Lifestyle Monitor™, 2015a, b; De Klerk and Lubbe, 2008; Zeithaml, 1988). Consumers’ perception of product quality can be influenced by both intrinsic and extrinsic cues. Intrinsic cues that are designed into a product, such as fabric, color, and finish are the physical characteristics of a product. These characteristics cannot be manipulated without physically changing the product. Extrinsic cues are the non-physical attributes of products including brand name, country of origin, and store image (Olson and Jacoby, 1972).

Consumer appraisal of a product’s superiority or excellence is described as perceived quality (Zeithaml, 1988). Consumers often have a specific opinion of a brand depending on their level of satisfaction and the brand’s perceived quality (Keller, 2008). The level of a consumer’s familiarity with a brand has a positive effect on perceived quality (González Mieres et al., 2006). According to Romeo (2009), compared to other apparel categories, the quality of denim jeans is often based on its brand. Consumers tend to associate brand names and designer logos with higher quality denim jeans (Wade, 2011).

Apparel products are also offered at different price points. Typically, ready-to-wear apparel is available in the designer, bridge, better, moderate, and mass merchant or budget price categories (Lee and Steen, 2014). The highest priced ready-to-wear apparel items are in the designer price zone followed by bridge. Better priced garments have high market appeal and are available in department stores. A moderate price category appeals to price-conscious consumers and is priced below the better category. Finally, the least expensive price category is identified as budget or mass merchant, which consists of products offered at low and affordable prices (Lee and Steen, 2014; Keiser and Garner, 2012). Several studies on consumer behavior show that the extrinsic cue of price is frequently used as a determinant of quality (Darke and Chung, 2005; Swinker and Hines, 2006; Zeithaml, 1988).

The quality of garments is related to the fabric’s mechanical and physical properties as well as the cut-and-sew quality and methods used during the manufacturing process (Geršák, 2002). Various test methods, standards, and requirements for appearance and performance specifications of fabrics and garments have been developed by different organizations such as AATCC, ASTM, and ISO to assist companies in developing quality standards for their final products. Each standardized test method can be performed on garments during and after the production process or after a series of launderings to evaluate the appearance and performance characteristics and determine if further modifications are required during the product development process.

Product appearance is an important feature that impacts the consumer perception of quality. A prevalent issue that affects the appearance of textile materials is wrinkling or smoothness which can be affected during use or after laundering. Therefore, it is necessary to assess the smoothness of fabrics and seams to determine how the appearance of a garment will change after laundering (AATCC, 2014a, b; Bubonia, 2014). Another appearance characteristic of a garment that is prone to change after laundering is its dimension. Any variation in width or length of a garment that is subjected to specific conditions is known as a dimensional change. The length and width of a garment are measured before and after laundering using benchmarks drawn on selected areas to determine if apparel is able to retain its shape (AATCC, 2012). The changes in the color of a garment during use and after laundering influence its appearance. The AATCC Technical Manual has developed methods to evaluate the colorfastness characteristics of a fabric by measuring its resistance to color change (colorfastness to home laundering) and to transfer of its colorants to adjacent materials (colorfastness to crocking) (AATCC, 2016).

Performance is another dimension of product quality affecting consumer perception. One aspect of performance – durability of apparel items – can be defined as the length of use before a product becomes physically deteriorated or inappropriate for its original end use.
Apparel products are often discarded due to an unexpected failure in strength, such as breaking, tearing, bursting, or abrasion of the fabric. The strength attributes in fabric and garment levels are the determining factors in ensuring the durability and serviceability of an apparel product (Annis, 2012). Conformance is the degree to which the performance and design of a product meets its predetermined standards and its product specifications which include garment and material components as well as design and assembly (Bubonia, 2014). Serviceability is the ability of a garment to retain its original shape and appearance after wear. The aspect of serviceability is also related to ease of care and cost of maintenance (Bubonia, 2014). ASTM offers different test methods to measure the strength of fabric and sewn seams in woven fabrics.

Several studies (De Klerk and Lubbe, 2008, Fiore and Damhorst, 1992, Romeo, 2009) have attempted to address the evaluation of apparel quality using a panel of consumers. But the findings of these investigations only presented the consumer’s perception of the quality, influenced by both intrinsic and extrinsic attributes, and did not represent the actual product quality of a garment. A more objective approach is by evaluating product quality through laboratory testing, which is widely used among researchers in this field. Multiple studies have investigated the product quality of apparel by evaluating various dimensions. Badgett (2017) evaluated the construction characteristics and appearance and performance quality attributes of jersey knit T-shirts in three retail categories through laboratory testing. Another study evaluated the performance and aesthetic characteristic of garments before and after laundering to determine the effect of maintenance and care on the performance quality (Doty and Easter, 2009). Chowdhary (2002) assessed the structural and performance attributes of jeans with different finishes and price categories using AATCC and ASTM test methods. The review of multiple studies indicates that laboratory testing and post-laundry assessments are a justifiable method for evaluating the product quality of garments through quantifiable means.

In summary, product quality is multi-dimensional, relying on internal or intrinsic features of a garment as well as external or extrinsic attributes (Bubonia, 2014) and these attributes can all influence a consumer’s selection of a product (Rahman et al., 2010). The physical or internal features of apparel products that are related to apparel quality are design, construction, material, and finishing. These physical attributes are associated with the products’ performance and appearance characteristics (Keiser and Garner, 2012). Although external features such as price have an influence on the perceived quality of a product, they do not necessarily reflect intrinsic product quality. The information obtained through testing offers an objective way to evaluate an apparel product’s quality. Moreover, evaluating product quality through testing enables the transformation of subjective aesthetic attributes into tangible quantifiable data for comparison of measurable, quantitative characteristics.

4. Methodology
The purpose of this study was to evaluate a set of product specifications, appearance, and performance of three pairs of men’s denim jeans to examine the relationship between price and product quality. The research was designed as a quasi-experimental laboratory study. The samples were selected through purposive sampling method. The sample selection included three new pairs of jeans from each price category of better (Brand A), moderate (Brand B), and budget (Brand C) for a total of nine pairs of jeans. The selection of these price categories was based on their wider market appeal (Keiser and Garner, 2012). This study used Brand A, B, and C because they represent the better, moderate, and budget price category and are familiar among consumers. All three brands sell their products through online channels as well as brick and mortar stores. Brand A, a widely recognized brand of jeans, was selected to represent the better price category. Brand A jeans are sold in their...
own retail stores as well as other well-known department stores. For the moderate price category, Brand B jeans were selected. Brand B is a private label brand whose products are distributed and sold exclusively through their own retail stores and online website. Brand C jeans were selected to represent the mass merchant (budget) price category. Brand C is a private label brand of apparel carried exclusively by a well-known nationwide retailer in the USA. The jeans were ordered from the official website of each brand. All jeans were 100 percent cotton and styled with similar fit, aesthetic features, and color. This study selected denim jeans with waist size of 36 in. and inseam of 34 in. Denim jeans in this size gave the researcher adequate fabric specimens for further evaluations. The features and description of the garment are outlined in detail in the Results section as product specifications.

In the initial phase of the study, the product specifications of each pair of jeans, as listed at the point of purchase, were identified and recorded through a style summary sheet adapted from Keiser and Garner (2012). The material specifications were identified by evaluating the fabric weight, fabric count, yarn twist, and yarn number as well as assessing the support findings and trims. These specifications are in listed in a material specifications table that was developed based on the class materials at the author’s university as well as other related literature. A subjective inspection of the overall quality of the denim fabric and construction specifications, including seam type and stitch type were also conducted. Assessment of the intrinsic attributes of appearance and performance included: evaluation of color difference; colorfastness to dry and wet crocking; fabric breaking strength, seam strength, and dimensional change. All evaluations were according to ASTM and AATCC test methods. The test methods and procedures used in this study are presented in Table I.

After determining the product specifications, each brand of jeans was washed and dried separately under similar conditions and according to information provided on their attached care label. The machines used for washing and drying the samples were a major brand of a high efficiency top-loading washing machine and a matching tumble dryer. The washer was set on a cold regular cycle, with hot water temperature of 130°F and cold water temperature of 60°F. The dryer was set on a cold regular cycle.

<table>
<thead>
<tr>
<th>Evaluation</th>
<th>Test method</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fabric weight</td>
<td>ASTM D3776/D3776M-09a (2013), Standard Test Method for Mass per Unit Area (Weight) of Fabric</td>
</tr>
<tr>
<td>Fabric count</td>
<td>ASTM D3775-12, Standard Test Method for Warp (End) and Filling (Pick) Count of Woven Fabrics</td>
</tr>
<tr>
<td>Yarn number</td>
<td>ASTM D1059-01, Standard Test Method for Yarn Number Based on Short-Length Specimens</td>
</tr>
<tr>
<td>Color difference</td>
<td>AATCC Evaluation Procedure 9-2011, Visual assessment of Color Difference of Textiles, Samples</td>
</tr>
<tr>
<td>Dry and wet crocking Smoothness retention</td>
<td>AATCC Test Method 8-2013, Colorfastness to Crocking; Crockmeter Method</td>
</tr>
<tr>
<td>Fabric breaking strength</td>
<td>ASTM D 5034-11, Standard Test Method for Breaking Strength and Elongation of Textile Fabrics (Grab Test)a</td>
</tr>
<tr>
<td>Seam strength</td>
<td>ASTM D 1683-11a, Standard Test Method for Failure in Sewn Seams of Woven Apparel Fabricsb</td>
</tr>
<tr>
<td>Dimensional change</td>
<td>AATCC Test Method 150-2012, Dimensional Changes of Garments after Home Laundering</td>
</tr>
</tbody>
</table>

Notes:  
\(a\) The standard test method recommends five specimens from the warp direction and eight specimens from the filling direction, but due to lack of space, only three specimens from each direction were tested;  
\(b\) the standard test method recommends five specimens from each seam, due to lack of space, only two specimens were tested from the inseam and side seam of each pair of jeans
of 60°F utilizing 69.2 g of a widely used brand of consumer laundry detergent. They were rinsed in a cold water cycle.

Prior to any evaluation, the samples were conditioned for a minimum of 24 hours at 70°±2°F and at a relative humidity of 65±2 percent according to the ASTM D1776 Standard Practice for Conditioning and Testing Textiles (ASTM, 2016). Color difference, colorfastness to dry and wet crocking, fabric breaking strength, seam strength, smoothness retention, and dimensional change were evaluated after one and five laundering cycles. The pre-wash and post-wash results were compared within and between jeans at each price category to determine the relationship between the product quality and the price.

4.1 Data analysis
Data were analyzed using JMP Pro 13 Statistical Software. Descriptive statistics including means, standard deviation, and percentages were calculated. Student’s t-test was used before and after laundering for identifying any significant differences in color difference, colorfastness to crocking, smoothness retention, fabric breaking strength, and seam strength among jeans at each price category. Student’s t-test is used to determine whether there is a significant difference between two means (Goos, 2016). The significance level was set at $p \leq 0.05$. Due to the limited sample size, prerequisites tests for data distribution and equal variance could not be conducted. However, a study by De Winter (2013) suggests that conducting t-tests with extremely small samples (less than five) is feasible when the effect size is relatively large. Moreover, the results of that research showed that despite the risk of getting a false positive result, t-test can be validly applied in the case of unequal variances or skewed population distributions when the sample size is very small (De Winter, 2013). Another empirical study by Chowdhary (2002) also tested five specimens from one sample to evaluate the structural and performance characteristics of three denim jeans, indicating that the statistical analysis of garment’s attributes with a small sample size is feasible.

5. Results and discussion
In order to identify and compare the product specifications of jeans at three price categories, (Research Objective 1), the design, material, and construction specifications of the jeans were evaluated.

5.1 Design specifications
The online presentation of Brand A, Brand B, and Brand C jeans varied in the type of information. Brand B and Brand C websites offered more detailed information about their products than Brand A website. Brand A, Brand B, and Brand C jeans had similar styles and fits. All samples had a straight fit with jean tuck button closure on the waistband and a zip fly. There were variations in the number of belt loops sewn to the waistband of jeans and the position of back pocket’s bartacks. Brand A jeans had five belt loops and Brand B and Brand C jeans had six and seven belt loops attached to their waistbands, respectively. Unlike Brand B jeans, the edges of the back pockets in the Brand A and Brand C jeans were secured with bartacks. The style summary of Brand A, Brand B, and Brand C jeans is presented in Table II.

For this study, all jeans were sold with a waist size of 36 in. and inseam of 34 in. Actual garment measurements were compared to the standard garment measurements in The Fashiondex Incorporation (2001) and standard ease allowances provided by Myers-McDevitt (2009). The standard ease allowance for the waistband of men’s loose fitting pants is 1-2 in. (Myers-McDevitt, 2009). The measurement of actual garments showed a high variation in waist circumference measurements of Brand A jeans. The 36.30 in.-38.15 in. waist circumference measurement range would influence the fit of Brand A jeans for the
intended consumer. Brand B jeans had an average waist measurement of 39.27 in., which was 1.27 in. larger than standard ease allowance. In addition, the measurement did not comply with the recommended size chart available in Brand B website. Based on the results, Brand B jeans would not fit the population whose waist size fell within the predetermined standard dimensions. Brand C jeans average waist measurement had the lowest variation and was within the standard waist size range.

5.2 Material specifications
The fashion fabric of all jeans was 100 percent cotton denim but there were variations in the construction characteristics of the fabric. Brand A jeans were constructed from a 2/1 warp-faced left-hand twill, whereas Brand B and Brand C jeans were constructed from a 3/1 warp-faced right-hand twill. Compared to Brand B and Brand C samples, Brand A jeans had the lowest fabric weight (10.45 (oz/yd)) and the highest fabric count (132). Brand A jeans had the highest yarn number, according to the cotton count, which is an indirect measuring system where the higher the number, the finer the yarns. In terms of aesthetic treatments or finishes applied to the jeans in the finishing process, Brand A jeans had been distressed to obtain three-dimensional whiskers and Brand B jeans were resin rinsed for a smoother appearance. Visual inspection showed various types of fabric defects in Brand A, Brand B, and Brand C jeans. Brand B jeans had a smoother fabric with less pills and snags compared to Brand A and Brand C jeans. This could be a result of the resin rinse finish on Brand B jeans. Resin finish improves the smoothness and surface appearance of garments (Fan, 2009; Paul, 2015). The findings and trims also varied from one brand of jeans to another. Brand A jeans had jean-tacks and rivets made of copper whereas the jean-tacks and rivets of Brand B and Brand C samples were brass, a lower-priced metal in comparison to copper. Brand B was the only brand that reinforced the fly and waistband of the jeans with 100 percent polyester fusible interfacing. Brand A had a leather patch label and the patch label for Brand B jeans were manufactured from synthetic leather. Brand C did not have any branding patch label. Brand A and Brand B jeans were sewn with a cotton/polyester core spun sewing thread but Brand C jeans were stitched with 100 percent polyester core spun sewing threads. The material specifications of Brand A, Brand B, and Brand C jeans is presented in Table III.
5.3 Construction specifications

The construction specification of the jeans included the type of seams and stitches used in the inseams and sideseams. The sideseams of the Brand A and Brand B jeans were constructed of a busted seam with a 503 stitch class edge finish and two rows of topstitching. This seam type would have a higher production cost than the superimposed seam used in Brand C jeans' side seam finished with a 504 stitch. The inseams of both Brand A and Brand B jeans were lapped using 401 stitch class topstitching, but the inseams of the Brand C jeans were felled with two-needle topstitching (301). In all three brands both the front rise and back rise were flat felled seams. The yoke was joined by a lapped seam sewn with two-needle chainstitch machine. Bound seams were used in the waistbands which were attached to jeans with a 401-class stitch.

All brands experienced puckering in the edges of seams in the waistband, back rise, crotch, and fly areas. Moreover, in Brand C jeans, the folded edges were faded, and yarns from the fabric were observed on the surface of the garment. All three brands of jeans had some degree of skew in the hem of the pant legs and waistband that prevented them from lying flat. Occasionally, this puckering will be added into jeans intentionally, as an aesthetic feature.

Stitch defects identified in Brand A, Brand B, and Brand C included broken, skipped, loose, crowded, and uneven stitches. Brand A jeans had fewer stitch defects (both location and quantity) followed by Brand B and Brand C. The stitch defect that impacted the outside appearance of the jeans the most was the mismatched topstitching on the back yoke (the stitch lines and yoke sections did not meet). This defect was observed in one pair of Brand A and Brand B jeans and all three Brand C jeans (Plate 1).

5.4 Appearance and performance characteristics

The appearance and performance characteristics were compared before and after laundering (Research Objective 2). The appearance and performance characteristics are presented in Tables IV and V. A summary of the comparisons between Brand A, Brand B, and Brand C using Student’s t-test is shown in Table VI. The comparisons within Brand A, Brand B, and Brand C jeans after laundry using paired t-test are summarized in Table VII.

### Table III

<table>
<thead>
<tr>
<th>Material specifications for Brand A, B, and C jeans</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brand A</strong></td>
</tr>
<tr>
<td>Fabric name</td>
</tr>
<tr>
<td>Fiber content</td>
</tr>
<tr>
<td>Fabric count</td>
</tr>
<tr>
<td>Fabric weight</td>
</tr>
<tr>
<td>Yarn type</td>
</tr>
<tr>
<td>Yarn number-warp</td>
</tr>
<tr>
<td>Yarn number-filling</td>
</tr>
<tr>
<td>Yarn twist</td>
</tr>
<tr>
<td>Color application</td>
</tr>
<tr>
<td>Finishes</td>
</tr>
<tr>
<td>Buttons</td>
</tr>
<tr>
<td>Rivets</td>
</tr>
<tr>
<td>Branding Patch Label</td>
</tr>
<tr>
<td>Interfacing</td>
</tr>
<tr>
<td>Sewing thread</td>
</tr>
</tbody>
</table>

*Note: Calculations were based on indirect yarn numbering system (Plate 1).*
After one wash, the color of Brand A jeans faded to a 4.33 grade. The color continued to fade after five wash cycles. After one wash cycle, Brand B jeans also faded and were rated a 3.83 grade. The color of Brand B faded more and grade of 2.25 was assigned after five wash cycles. Brand C jeans were rated as 3.67 after one laundering cycle, and the color difference after five wash cycle was 3.25. The t-test showed that the color of Brand A ($p = 0.006$), Brand B ($p = 0.001$), and Brand C ($p = 0.007$) jeans changed after home laundering. The results indicated a significant variation between the color difference of Brand A and Brand B jeans and Brand A and Brand C jeans after one wash. Overall, Brand A jeans had a lower level of color change than Brand B and Brand C jeans.
Colorfastness to crocking. In colorfastness to dry crocking test, a grade of 4.14 was assigned to Brand A jeans while for Brand B jean, the colorfastness to dry crocking was 4.22 and for Brand C jeans it was 4.78. After laundering, less color was transferred to Brand A jeans crock cloth samples. Laundering decreased the level of staining (transfer of color) for Brand

<table>
<thead>
<tr>
<th>Performance characteristics</th>
<th>Jean brand</th>
<th>Initial (pre-wash)</th>
<th>Wash 1</th>
<th>Wash 5</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Mean</td>
<td>SD</td>
<td>Mean</td>
</tr>
<tr>
<td>Fabric breaking strength (warp)</td>
<td>A</td>
<td>110.18</td>
<td>10.33</td>
<td>112.97</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>213.16</td>
<td>3.95</td>
<td>178.60</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>182.39</td>
<td>7.04</td>
<td>190.79</td>
</tr>
<tr>
<td>Fabric breaking strength (filling)</td>
<td>A</td>
<td>74.56</td>
<td>4.52</td>
<td>67.96</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>133.02</td>
<td>6.77</td>
<td>126.74</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>118.01</td>
<td>11.57</td>
<td>106.47</td>
</tr>
<tr>
<td>Seam breaking strength (inseam)</td>
<td>A</td>
<td>72.90</td>
<td>3.82</td>
<td>73.53</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>113.45</td>
<td>4.02</td>
<td>122.67</td>
</tr>
<tr>
<td></td>
<td>C</td>
<td>126.03</td>
<td>5.08</td>
<td>123.12</td>
</tr>
<tr>
<td>Seam breaking strength (sideseam)</td>
<td>A</td>
<td>64.33</td>
<td>6.16</td>
<td>63.80</td>
</tr>
<tr>
<td></td>
<td>B</td>
<td>105.78</td>
<td>2.99</td>
<td>103.51</td>
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<tr>
<td></td>
<td>C</td>
<td>97.43</td>
<td>4.37</td>
<td>97.91</td>
</tr>
<tr>
<td>Dimensional change</td>
<td>A</td>
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</tr>
<tr>
<td></td>
<td>B</td>
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<td></td>
<td>1.51</td>
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<tr>
<td></td>
<td>C</td>
<td></td>
<td></td>
<td>1.25</td>
</tr>
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</table>

Table V. Descriptive data for performance characteristics

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Brand</th>
<th>Initial Mean</th>
<th>SD</th>
<th>Wash 1 Mean</th>
<th>SD</th>
<th>Wash 5 Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color difference</td>
<td>A-B</td>
<td>15,803</td>
<td></td>
<td>15,803</td>
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<td>15,803</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>11,081</td>
<td></td>
<td>24,357</td>
<td></td>
<td>21,879</td>
<td></td>
</tr>
<tr>
<td>Color fastness to dry crocking</td>
<td>A-B</td>
<td>36,666</td>
<td></td>
<td>36,666</td>
<td></td>
<td>36,666</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>20,000</td>
<td></td>
<td>20,000</td>
<td></td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Color fastness to wet crocking</td>
<td>A-B</td>
<td>18,983</td>
<td></td>
<td>18,983</td>
<td></td>
<td>18,983</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>10,000</td>
<td></td>
<td>10,000</td>
<td></td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Smoothness retention</td>
<td>A-B</td>
<td>4.45</td>
<td></td>
<td>4.45</td>
<td></td>
<td>4.45</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>4.45</td>
<td></td>
<td>4.45</td>
<td></td>
<td>4.45</td>
<td></td>
</tr>
<tr>
<td>Fabric breaking strength (warp)</td>
<td>A-B</td>
<td>36,666</td>
<td></td>
<td>36,666</td>
<td></td>
<td>36,666</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>20,000</td>
<td></td>
<td>20,000</td>
<td></td>
<td>20,000</td>
<td></td>
</tr>
<tr>
<td>Fabric breaking strength (filling)</td>
<td>A-B</td>
<td>18,983</td>
<td></td>
<td>18,983</td>
<td></td>
<td>18,983</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>10,000</td>
<td></td>
<td>10,000</td>
<td></td>
<td>10,000</td>
<td></td>
</tr>
<tr>
<td>Seam breaking strength (inseam)</td>
<td>A-B</td>
<td>15,803</td>
<td></td>
<td>15,803</td>
<td></td>
<td>15,803</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>11,081</td>
<td></td>
<td>24,357</td>
<td></td>
<td>21,879</td>
<td></td>
</tr>
<tr>
<td>Seam breaking strength (sideseam)</td>
<td>A-B</td>
<td>11,145</td>
<td></td>
<td>11,145</td>
<td></td>
<td>11,145</td>
<td></td>
</tr>
<tr>
<td></td>
<td>A-C</td>
<td>8,898</td>
<td></td>
<td>8,898</td>
<td></td>
<td>8,898</td>
<td></td>
</tr>
</tbody>
</table>

Table VI. Student’s t-test comparisons between jeans brands A, B, and C

Notes: Generated by student’s t-test. *p ≤ 0.05; **p-value cannot be computed because the standard deviations of both groups are 0

Notes: Generated by student’s t-test. *p ≤ 0.05; **p-value cannot be computed because the standard deviations of both groups are 0
B jeans and they were graded as 4.64 after five wash cycles. In Brand C jeans, the level of staining remained unchanged after home laundering.

In the colorfastness to wet crocking test, the pre-wash Brand A jeans crock cloths were graded as 1.94 and after five wash cycles, a rating of 2.31 was assigned to Brand A jeans. Prior to washing, the colorfastness to wet crocking of Brand B jeans was 2.11 and after five wash cycles, and the level of staining decreased to rating of 3.03. Initially, Brand C jeans were graded as 2.83 and the level of staining decreased to rating of 3.58 after five laundering cycles.

The \( p \)-values obtained from the \( t \)-test indicated that prior to washing, Brand C jeans had a significantly lower propensity to dry and wet crocking than Brand A and Brand B jeans. After home laundering, the \( p \)-value shows that the changes in the colorfastness to dry crocking of Brand A (\( p = 0.0004 \)) and Brand B (\( p = 0.019 \)) jeans were statistically significant. This indicated that the level of transferred color of both brands of jeans decreased after wash. For Brand B (\( p = 0.0025 \)) and Brand C (\( p = 0.0061 \)) jeans, the propensity for wet crocking decreased after five wash cycles. The outcomes of the analyses suggest that after laundering, Brand A jeans had the highest level of staining followed by Brand B and Brand C jeans.

**Smoothness retention.** After one wash cycle, the smoothness appearance of Brand A jeans was graded as 4.33 while for Brand B jeans, the smoothness retention grade was 3.83 and for Brand C jeans, it was 4.17. After five laundering cycles, a grade of 4.00 was assigned to Brand A jeans. The smoothness retention of Brand B jeans slightly decreased to 3.75 after five laundering cycles. Brand C jeans smoothness retention grade was 4.00 after five laundering cycles. The results of the \( t \)-test showed that the smoothness retention of Brand A, Brand B, and Brand C jeans did not change after one and five wash cycles. Moreover, the difference between the average smoothness retention of Brand A, Brand B, and Brand C jeans after home laundering were minimal.

**Fabric breaking strength.** The results from the fabric breaking strength evaluation indicated that Brand A jeans had a significantly lower breaking strength in warp and filling directions than Brand C and Brand B jeans. Specimens cut from Brand A jeans

<table>
<thead>
<tr>
<th>Characteristic</th>
<th>Wash Interval</th>
<th>Brand A</th>
<th>Brand B</th>
<th>Brand C</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>p-value</td>
<td>t-ratio</td>
<td>p-value</td>
<td>t-ratio</td>
</tr>
<tr>
<td>Color difference</td>
<td>1-5</td>
<td>0.006*</td>
<td>−10</td>
<td>0.001*</td>
</tr>
<tr>
<td>Color fastness to dry crocking</td>
<td>1-0</td>
<td>0.0001*</td>
<td>10</td>
<td>0.0196*</td>
</tr>
<tr>
<td></td>
<td>5-0</td>
<td>0.0004*</td>
<td>7</td>
<td>0.0019*</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>0.0240*</td>
<td>−3</td>
<td>0.0782</td>
</tr>
<tr>
<td>Color fastness to wet crocking</td>
<td>1-0</td>
<td>0.2382</td>
<td>1.309</td>
<td>1.000</td>
</tr>
<tr>
<td></td>
<td>5-0</td>
<td>0.2045</td>
<td>1.423</td>
<td>0.0025*</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>0.9133</td>
<td>0.113</td>
<td>0.0025*</td>
</tr>
<tr>
<td>Smoothness retention</td>
<td>1-5</td>
<td>0.1161</td>
<td>−2</td>
<td>0.3739</td>
</tr>
<tr>
<td>Fabric breaking strength-warp</td>
<td>1-0</td>
<td>0.6828</td>
<td>0.429</td>
<td>0.0002*</td>
</tr>
<tr>
<td></td>
<td>5-0</td>
<td>0.5634</td>
<td>0.611</td>
<td>0.0001*</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>0.8614</td>
<td>0.182</td>
<td>0.0021*</td>
</tr>
<tr>
<td>Fabric breaking strength-filling</td>
<td>1-0</td>
<td>0.0639</td>
<td>−2.267</td>
<td>0.0570</td>
</tr>
<tr>
<td></td>
<td>5-0</td>
<td>0.4551</td>
<td>0.726</td>
<td>0.1350</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>0.0242*</td>
<td>2.993</td>
<td>0.5552</td>
</tr>
<tr>
<td>Seam strength-inseam</td>
<td>1-0</td>
<td>0.8955</td>
<td>0.257</td>
<td>0.1255</td>
</tr>
<tr>
<td></td>
<td>5-0</td>
<td>0.0083*</td>
<td>−.868</td>
<td>0.1184</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>0.0062*</td>
<td>−4.125</td>
<td>0.0680</td>
</tr>
<tr>
<td>Seam strength-sideseam</td>
<td>1-0</td>
<td>0.9064</td>
<td>−0.124</td>
<td>0.5472</td>
</tr>
<tr>
<td></td>
<td>5-0</td>
<td>0.1708</td>
<td>−1.555</td>
<td>0.3164</td>
</tr>
<tr>
<td></td>
<td>1-5</td>
<td>0.2022</td>
<td>−1.431</td>
<td>0.1343</td>
</tr>
</tbody>
</table>

**Notes:** Generated by Student’s \( t \)-test. *\( p \leq 0.05 \)

<table>
<thead>
<tr>
<th>Price and perceived product quality</th>
</tr>
</thead>
<tbody>
<tr>
<td>379 Table VII. Comparisons within brand A, B, and C jeans after laundry, Student’s ( t )-test</td>
</tr>
</tbody>
</table>
demonstrated an initial breaking of 110.18 lbf (warp) and 72.90 lbf (filling). The changes in the breaking strength of Brand A jeans were not significant after laundering. Prior to laundering, Brand B jeans average specimens broke at 213.16 lbf (warp) and 133.02 lbf (filling), and after laundering, the average breaking strength in warp direction increased to 235.72 lbf (warp). Initially, an average breaking strength of 182.39 lbf (warp) and 118.01 lbf (filling) was reported for Brand C jeans. After five laundering cycles, based on the $p$-value, the fabric breaking strength of Brand C jeans in the warp direction significantly increased. After laundering, the changes in fabric breaking strength of Brand A and Brand B jeans in the filling direction were not statistically significant.

**Seam strength.** The inseams of all three brands of jeans had a higher overall seam strength than their sideseams. Brand A jeans had the lowest seam strength for both sideseam and inseam. Initially, the average Brand A jeans seam strength was 72.90 lbf (inseam) and 64.33 lbf (side seam). The results from $t$-test indicated that the 13 percent decrease in seam strength of inseam in Brand A jeans ($p = 0.0083$) after laundering was statistically significant. The average seam strength for Brand B jeans’ sideseams was 105.78 lbf and the average inseam specimens broke at 113.45 lbf. Prior to washing, the average pounds of force needed for breaking the Brand C jeans sideseam was 97.43 lbf and the changes in seam breaking strength after laundering were minimal. Initially, the average seam strength for inseams was 126.03 lbf. After laundering, the differences in the inseam seam strength of Brand B and Brand C jeans and the sideseam seam strength of Brand A, Brand B, and Brand C jeans were not statistically significant.

In Brand A jeans, 50 percent of the seam failure was caused by sewing thread rupture; whereas in Brand B and Brand C jeans, only 12.5 and 25 percent of ruptures were characterized by sewing thread break, respectively. This type of failure could be explained by the lack of compatibility between the sewing thread and fabric in Brand C jeans. Seam break due to fabric rupture and yarn slippage is considered less desirable because such failure is not repairable (Mehta, 1992).

**Dimensional change.** After five laundering cycles, fabric shrinkage that occurred highly affected the inseam and hip measurements of jeans. In Brand A jeans, there were 2.23 percent (0.76 in.) and 3 percent (0.72 in.) decrease in inseam and hip measurements. The average amount of shrinkage in inseam and hip of Brand B jeans were 2.8 percent (0.97 in.) and 2.67 percent (0.64 in.) and Brand C jeans had the highest amount of inseam shrinkage (2.97 percent or 1 in.). This level of shrinkage would affect the serviceability and conformance of jeans. These two factors are considered the dimensions of textile and apparel quality.

### 6. Conclusion

The purpose of this study was to compare a set of product specifications, and evaluate appearance and performance characteristics of denim jeans at three price categories in order to identify any possible relationships between price and product quality. This study enabled the researcher to identify and compare the overall product specifications, appearance, and performance characteristics of jeans based on their price category and to gain in-depth knowledge regarding the product quality of jeans.

**6.1 Research objective 1: to compare a pre-defined set of product specifications of jeans at three price categories**

Even though structural, design, and style similarities were observed, the three pairs of jeans at each price category had different material specifications. Brand A, the highest priced jeans used in this study, were manufactured from a fabric that was stated as “Italian premium denim,” which could be perceived by consumers as higher quality, due to the branding of the denim fabric. Brand A jeans were manufactured from higher thread count denim and
higher-priced supporting material. Both Brand A and Brand B jeans had a smoother fabric surface with fewer fabric defects. Based on the visual comparison of product specifications, it can be stated that Brand C jeans (the least expensive), had the lowest fabric quality in terms of irregularities in fabric surface and defects in stitches and seams.

In terms of sizing and fit, the measurements of Brand C jeans – the low-priced brand – matched more closely to the standard garment measurements for the selected retail size. In Brand B, the moderate priced jeans, the out-of-standard range waist circumference could negatively affect the fit of jeans for the anticipated consumers. However, this inflation in waist circumference measurement could be explained by Brand B’s approach toward vanity sizing. Although vanity sizing could enhance the consumer’s positive self-related mental imagery (Aydinoğlu and Krishna, 2012) and influence their purchase intention (O’Mahony and Hall, 2007; Netemeyer et al., 1995), it could create sizing confusion and eventually lead to product return.

6.2 Research objective 2: to evaluate the appearance and performance characteristics of jeans at three price categories before and after home laundering

The assessments of appearance after home laundering showed that Brand A jeans had the lowest level of color fading followed by Brand C and Brand B. Recently, workplace casualization is turning into an advantage for the denim industry. The degree of color change of Brand B – the moderately-priced jeans – after laundering could be considered an issue with consumers that prefer dark denim jeans that can be worn to work and are less prone to fade after laundering (D’Adamo, 2015). On the other hand, poor colorfastness to crocking characteristics of Brand A and Brand B jeans could result in the easier transfer of color into other adjacent surfaces and would impact the serviceability of jeans. Although this characteristic improved significantly after laundering, the retailers did not instruct the consumers to wash the garment before the initial use. The results of this study suggests that while the highest price jeans are designed to retain color intensity, they would also not be as serviceable in a more functional work environment where abrasion might occur. Brand B jeans showed the same characteristics but the lowest price jeans would be most serviceable in situations where high abrasion and therefore color transfer might occur.

The evaluation of fabric and seam breaking strength of the jeans showed that Brand A – the better price category jeans – had the overall lowest level of fabric and seam breaking strength. Moreover, the fabric breaking strength (warp direction) of Brand A jeans were lower than the performance requirements for 100 percent cotton woven denim fabrics recommended by the ASTM D6554 /D6554M-14 (ASTM, 2014). This will negatively influence the durability of Brand A jeans, despite the description of the fabric as “premium” denim. Durability is one of the five dimensions of apparel and textile quality.

The dimensional change of Brand A jeans was relatively lower than the dimensional change of Brand B and Brand C jeans. This could be caused by the higher fabric count and tighter fabric construction of Brand A jeans that led to a better dimensional stability after laundering (Fan, 2009). The amount of shrinkage in inseams of Brand B and Brand C jeans was approximately 1 in. which does not conform to the initial measurements of the garment and may fail to meet consumers’ expectations regarding the fit of jeans. This degree of shrinkage could mean that the Brand B and Brand C jeans would not be serviceable after home laundering.

6.3 Research objective 3: to compare results within the price categories to determine any relationship between price and product quality

According to data from Cotton Inc. Lifestyle Monitor (2015a) Survey, fit and durability are among the most important factors influencing men’s jeans purchases. Based on the results
of this research, it can be concluded that the price category of jeans does not necessarily reflect the different dimensions of product quality. The higher priced jeans had better product specifications and visual appearance which could positively influence the consumers' perception of quality. However, the higher priced jeans did not show superior performance with respect to all elements of fit, durability, and color performance when these three factors were measured by both garment and fabric testing methods.

Consumers that are focused on style and design with less interest in durability characteristics may be more interested in paying the higher price for Brand A jeans. Brand B jeans – which were moderately priced and were targeted for the middle or upper class working professionals – performed well in durability tests, which means that the consumer may be getting value for his money at this price level. The conclusion of this study showed that price-conscious consumers that are interested in durability as well as style and design would prefer Brand B jeans. Finally, price-conscious consumers that are primarily interested in durability would prefer Brand C jeans. Brand C jeans would be desirable for the consumer conducting manual labor as well as the value-driven consumers who prefer basic jeans that are durable. Brand C’s fit measurements were initially accurate; however, after laundering, their fit drastically changed. Consumers at this price category should be aware of these changes, especially after multiple launderings.

6.4 Implications
This study has implications for consumer, retailers, and product developers. The decision to purchase a pair of denim jeans from each of these price categories may depend on the consumers' expectations and priorities in terms of product quality, style, and trend. This is due to the fact that for consumers the quality of products includes the performance and functional attributes as well as the design and style features. Retailers in moderate and budget price categories can benefit from educating consumers about the quality attributes of jeans that would ultimately influence their post-purchase experience and are not necessarily related to the product's price category. For the individuals involved in the product development process, it is essential to consider the importance of the effect of fabric quality on the appearance and performance of denim jeans. Raw material and fabrication is the costliest part of the production process and although it is necessary to have a quality cost balance, product developers and retailers should try not to sacrifice final product. Educators can use this information to assist in teaching students about the multiple dimensions of materials and assembly choices, and how this will impact their final products as they are learning the apparel product development process.

7. Limitations
The small sample size of jeans was one of the limitations of this study. Three pairs of jeans from each price category were used for evaluations and a larger sample size would provide a stronger representation of the appearance and performance quality characteristic of jeans. Although statistical analysis can be conducted with a small sample size, a larger sample size would increase the statistical power and reliability of the study. This study was only focused on men’s jeans. The specification, appearance, and performance characteristics of women’s jeans may produce different results than the men’s jeans. Insufficient information about the manufacturing methods and dying, washing, and finishing techniques of jeans used in this study was another limitation of this research. This information is vital since it can impact the appearance and performance quality characteristics of jeans. This study used only three brands of jeans from three price categories. Due to branding and production variations, the outcome of this evaluation might not be similar for other brands of jeans within these price categories. Denim jeans
used in this study were obtained from only one channel of distribution, the official website of each brand. Jeans offered from other channels of distribution, including retailers, discount stores, and outlets, might have different quality characteristics.

Further research should be conducted on assessing the quality of jeans in different price categories after wear and cure. A comparison between characteristics of used and unused jeans would provide a greater insight into the appearance of performance of jeans in different price categories. Based upon the results of this study, it is recommended to evaluate other characteristics of garments that affect the quality of jeans. Other evaluations that are quality indicators include abrasion, pilling, snagging resistance, and tear strength of jeans. Further studies can also evaluate the appearance and performance characteristics of jeans for women and children. The term “Premium denim” might be perceived differently by consumers. Further research could present a comprehensive exploration of the characteristics of “Premium denim” with respect to aesthetics, quality, and price. Such study might decrease consumers’ confusion and would help them select a suitable pair of jeans based on the specific end use. A follow-up study on consumers’ perception of product quality that incorporates visual assessment of apparel (with hidden price/brand tag) is also recommended. A final recommendation is to extend these assessments to other types of garments to identify the product specifications and evaluate the appearance and performance characteristics based on the intended and targeted end-use of the apparel.

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**Further reading**

About the authors

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Effects of multi-brand company’s CSR activities on purchase intention through a mediating role of corporate image and brand image

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Abstract
Purpose – The purpose of this paper is to examine the effect of the corporate social responsibility (CSR) activities of a fashion company with multiple brands. In particular, the aim is to determine the differences in the impact of corporate-level and brand-level CSR.

Design/methodology/approach – The data were collected using an online survey from the consumer panel of a marketing research firm in South Korea. The subjects were presented with the following stimuli of a fashion company with multiple brands: describing corporate-level CSR activities of a company \( (n = 109) \) and describing brand-level CSR activities of a company \( (n = 113) \). After processing the information, the participants were asked to evaluate their reciprocity perception, corporate image, brand image, and purchase intention.

Findings – Regarding corporate-level CSR, participants’ reciprocity perception positively and directly affected purchase intention. It also positively affected corporate image, and corporate image affected brand image, and brand image positively affected purchase intention. Regarding brand-level CSR, reciprocity perception did not affect purchase intention directly, but positively affected purchase intention through mediation of corporate image. This study found a construct where reciprocity perception influences purchase intention with a mediating role of corporate image and brand image. The effect of reciprocity perception shaped by corporate-level CSR is greater than that shaped by brand-level CSR.

Originality/value – The outcome of this study provides meaningful insights and practical implications for companies that have multiple brands.

Keywords Brand image, Reciprocity, Corporate social responsibility, Corporate image, Multi-brand

Paper type Research paper

Introduction
A company’s corporate social responsibility (CSR) activities often prompt a positive consumer assessment of the firm through the reciprocal effects of such activities (Palmatier et al., 2009). Thus, many companies have strategically carried out CSR initiatives to enhance their image and boost sales revenues (Carrigan and Attalla, 2001). CSR is known to improve both corporate image and brand image, and it ultimately helps enhance purchase intention (Balmer and Greyser, 2006; Wood and Jones, 1995).

Most large firms operating in consumer markets own and market more than one brand (i.e. they have a brand portfolio) (Morgan and Rego, 2009). These companies usually have an organization-wide department controlling CSR activities, rather than conducting CSR by brand. However, there is a need to consider the mutual effects of the CSR activities between the corporate image and brand image. It is also important to understand what role the corporate image or brand image has on consumer behavior such as purchase intention by establishing corporate-level and brand-level CSR activities.

In the corporate image literature, Haedrich (1993) and Simmons and Lynch (1991) asserted that various brands can improve a company’s corporate image and, in turn, the corporate...
image can improve the brand image. However, some of the research works examining the
effect of marketing initiatives has been conducted from a perspective that there is no
relationship between corporate image and brand image. Cretu and Brodie (2007) considered
corporate image and brand image to be factors that can influence purchase intention
separately. In other words, they infer that the corporate image related to CRS does not spread
to the brand as a whole. In addition, Maigman et al. (1999) assumed that there is a difference
between the effects of corporate activities on brand achievements and the effects of brand
activities on corporate achievements. Several debates have focused on the relationship among
corporate image, brand image, and performance. Thus, a company with multiple brands, the
focus of this study, should be studied to determine how consumers’ cognitive responses to
corporate-level and brand-level CSR activities influence the image of the company and the
brand, and how both types of image affect consumers’ purchase intention.

In the realm of fashion, brand image is one of the most important factors affecting
consumers’ purchase intention (Carrigan and Attalla, 2001). Since this industry is
cost-sensitive and low labor standards have been reported, it has become a serious social
issue in the global market (Cooke and He, 2010). Thus, fashion companies consider CSR to be
an essential part of improving their image and sales (Carrigan and Attalla, 2001). In addition,
fashion companies must disperse the risks of corporate operation and maximize opportunities
by having many brands (Arrigo, 2013; Lopez and Fan, 2009). Thus, it is appropriate to study
the fashion industry for how the CSR of multi-branded companies affects corporate image,
brand image, and consumers’ purchase intention.

The purpose of this research is to determine what impact fashion companies’
corporate-level and brand-level CSR has on corporate image, brand image, and purchase
intention. Since scholars and managers have recently devoted greater attention to the strategic
implications of CSR (McWilliams et al., 2006), the outcome of this study is expected to offer
meaningful insights and practical implications for fashion companies with multiple brands.

Theoretical background and hypotheses development
Most large firms own more than one brand (Morgan and Rego, 2009), and usually have an
organization-wide department controlling CSR. For example, Gap Inc., one of the most
famous global fast fashion companies including various brands such as Gap, Banana
Republic, Old Navy, and Athletes, has performed corporate-level CSR initiatives
(Arrigo, 2013). However, in other companies, the CSR initiatives are performed at the
brand level. An example of brand-level CSR is the 2009 campaign named “Save lids to save
lives” of Yoplait, one of the most famous yogurt brands made by General Mills. Through
this campaign, consumers can donate ten cents to non-profit organizations for each Yoplait
lid redeemed (Kotler et al., 2012).

Although there are two different kinds of CSR, few academic studies have examined how
the two types of CSR improve a company’s corporate image and brand image and how it
influences consumers’ purchase intention. It is also important to consider the asymmetry
between brand image and corporate image. When the brand image is stronger than the
corporate image, consumers may know the brand of a product well, but they may not know
which company owns the brand. For example, the global fast fashion brand ZARA is well
known, but Inditex Inc. where the company manages ZARA is less well known.
The opposite is also true. Consumers may know the global electronics company Samsung,
but they may be less familiar with all of the brands under the Samsung umbrella such as
Rankings, ZARA, one of the brands of Inditex Inc., was listed in the brand rankings, and
Samsung was ranked as a corporate brand. In all of these cases, it would not be effective to
uniformly coordinate corporate-level or brand-level CSR. Thus, this study aims to examine
the differences in the effects of corporate-level CSR and brand-level CSR.
Since engaging in CSR is an increasingly common business practice across countries and industries (Seok Sohn et al., 2012), most fashion companies have conducted CSR even without insights about which CSR activities have greater influence: at the corporate level or brand level. Therefore, it is necessary to academically study how the implementation of corporate-level or brand-level CSR has a positive effect on corporate image, brand image, and purchase intention. To explain the increasing purchase intention by corporate-level and brand-level CSR, we employ reciprocity. In particular, we examine the extent to which consumers perceive that the corporate-level CSR or brand-level CSR for their community enhances consumers’ purchase intention.

**CSR in the fashion industry**
According to Business for Social Responsibility (1992), an organization that manages “a global network of partnerships to address systemic sustainability challenges,” CSR means that companies should achieve commercial success in ways that respect ethical values, people, communities, and the environment. Through CSR, companies can achieve viable, sustainable growth that benefits stakeholders as well as stockholders. However, the fashion industry has been notorious for its low labor standards, which directly opposes the definition of CSR and can harm a fashion company’s brand image. Brand image is more important for this industry than for some other industries (Carrigan and Attalla, 2001). Thus, fashion companies consider CSR an essential aspect of improving their image and sales (Carrigan and Attalla, 2001), prompting many researchers to focus on the CSR of companies in the fashion industry.

In addition to the cost-sensitive characteristics and low labor standards of the fashion industry that have led to a sweatshop problem, the fashion industry is known for its negative impact on the environment in all stages of manufacturing (Shen, 2014). To study these challenges, most studies related to the CSR of fashion companies fall into three groups: studies focusing on pursuing sustainable growth through protection of workers’ and suppliers’ rights and the environment (e.g. Lion et al., 2016; Lueg et al., 2015; Macchion et al., 2015, 2017, 2018; Perry and Towers, 2009); studies related to CSR communication since fashion companies use CSR as a tool to improve their image (e.g. Da Giau et al., 2016; Guercini, 2001); and empirical studies focusing on how consumers’ cognitive responses to fashion companies’ CSR affect consumer behavior (e.g. Cho et al., 2017; Lee and Lee, 2015). However, relatively few empirical studies have been conducted. Thus, empirical studies are essential to verify consumers’ cognitive responses to fashion companies’ CSR and the effect on consumer behavior. This study aims to understand consumers’ responses to fashion companies’ CSR and to contribute to the coexistence of company, consumer, and community.

**Reciprocity perception**
Reciprocity refers to the response to a positive action of an interacting party with another positive action, since a favor from the interacting party builds a sense of obligation to return the favor (Regan, 1971; Gouldner, 1960; Cho et al., 2017). Reciprocity is the feeling of appreciation that consumers as members of society have toward the activities of a company/brand that has contributed to the community (Morales, 2005; Romani et al., 2013). Although consumers may not know exactly what the outcome of such activities are, they would feel a sense of gratitude and indebtedness, recognize the reciprocal effects, and have a favorable attitude toward the company/brand merely by becoming aware of those practices (Morales, 2005). Palmatier et al. (2009) found that a firm’s investment in customer relationship marketing evoked feelings of gratitude, which then led to reciprocal behaviors. Reciprocity also increases consumers’ trust in a company, which then affects consumers’ commitment and purchase intention. Wu et al. (2008) argued that consumers’ reciprocity perception can be integrated into the literature on brand trust, brand loyalty, and product familiarity and can explain future purchase intention. Recently, Cho et al. (2017) verified that consumers’ reciprocity perception...
from learning that a company is trying to perform CSR for their community affects their purchase intention to buy a product or service from the company in a positive manner. According to these studies, we expect that reciprocity perception will result in purchasing intention in our context. When consumers are made aware of CSR activities carried out by a company/brand, they perceive reciprocity (i.e. reciprocity perception) because they are appreciative of the company’s/brand’s effort to help their community and, in turn, such activities will ultimately affect the consumers’ purchase intention in a positive manner.

The following hypotheses were drawn based on this logic:

**H1.** Consumers’ reciprocity perception of CSR activities will have a direct positive effect on purchase intention.

**H1a.** Consumers’ reciprocity perception of corporate-level CSR will have a direct positive effect on purchase intention.

**H1b.** Consumers’ reciprocity perception of brand-level CSR will have a direct positive effect on purchase intention.

**Corporate image**

Corporate image is defined as the public’s overall impression of a firm (Barich and Kotler, 1991; Dichter, 1985; Kotler, 1982). Gray and Balmer (1998) defined corporate image as customers’ overall impression of a firm represented by its products or brands. Based on theories from consumer behavior and cognitive psychology, some research works have verified that corporate image is a decisive factor in consumers’ loyalty to and satisfaction with the company (Andreassen and Lindestad, 1998; Hart and Rosenberger, 2004). Corporate activities related to CSR activities have positive effects on corporate financial achievements (Lee and Kotler, 2011), and numerous studies have confirmed these evaluations on companies and products (Lee and Kotler, 2011; Sen and Bhattacharya, 2001; Shen, 2014). In addition, numerous studies have been conducted on the significant positive causal relationship between CSR and corporate image. Contingency models show that CSR triggers the corporate image building process (Arendt and Brettel, 2010). Brown and Dacin (1997), Macchion et al. (2018), and Da Giau et al. (2016) ascertained that CSR positively affects consumers’ evaluations of companies and products, which imply that CSR should facilitate a favorable corporate image (Vanhamme et al., 2012). They also stressed that CSR is one of the factors that influences the public to determine the image of companies. Winters (1986) also contended that corporate image consists of a business-activity factor, a social-activity factor, and a contribution factor. Therefore, CSR is appropriate as a tool for a company to form a powerful and positive corporate image (Andreassen and Lindestad, 1998; Hart and Rosenberger, 2004). As these studies have shown, consumers’ reciprocity perception while processing CSR information at the corporate-level or brand-level CSR can be viewed as positively affecting corporate image. The following hypotheses are drawn based on the theory:

**H2.** Consumers’ reciprocity perception of CSR activities will positively affect corporate image.

**H2a.** Consumers’ reciprocity perception of corporate-level CSR will positively affect corporate image.

**H2b.** Consumers’ reciprocity perception of brand-level CSR will positively affect corporate image.

**Brand image**

Brand image is the gathering of organized associations with meaning (Aaker, 1991) and consumer perceptions about a brand as reflected by the brand association held in
Consumers’ memory (Keller, 1993). According to a conceptual framework of brand equity suggested by Yoo et al. (2000), marketing efforts enhance brand equity through the various dimensions of brand equity. Keller (1993) suggested that brand equity consists of brand knowledge, comprising brand awareness and brand image, implying that companies’ marketing activities can affect their brand image. Chung et al. (2014) also argued that the marketing mix of activities such as products and distribution has an impact on brand image. That is, brand image can be formed by all corporate activities, but among these corporate activities, CSR has a powerful influence on brand image (Blombäck and Scandelius, 2013; Lion et al., 2016). The positive effects of CSR refer to increased sales, improved brand image and corporate image, increased consumer satisfaction, and augmentation of market value (Baden et al., 2011; Berens et al., 2005). According to Wu and Wang (2014), initiating a CSR approach could encourage customers to actively connect with the brand (Pivato et al., 2008; He and Li, 2011), and create a positive brand image in the consumers’ minds (Becker-Olsen and Hill, 2006; Alexander et al., 2014). Popoli (2011) also noted that strategically integrated CSR strongly affects brand image. Therefore, consumers’ reciprocity perception increases as they process the information of corporate-level CSR or brand-level CSR, both of which can be viewed as positively affecting brand image. Thus, this study set up the following hypotheses:

H3. Consumers’ reciprocity perception of CSR activities will positively affect brand image.

H3a. Consumers’ reciprocity perception of corporate-level CSR will positively affect brand image.

H3b. Consumers’ reciprocity perception of brand-level CSR will positively affect brand image.

Relationship among corporate image, brand image, and purchase intention
Several previous studies have verified the significant effect of corporate image on brand image. In particular, Mudambi et al. (1997) suggested that corporate image is an important antecedent of brand equity. Kim and Hyun (2011) found that corporate image is a mediator from the marketing-mix efforts to the dimensions of brand equity consisting of brand knowledge including both brand awareness and brand image (Keller, 1993). These past studies strongly indicate that corporate image plays a role in enhancing brand image. Based on this premise, CSR activities may enhance the corporate image, and an improved corporate image could positively influence brand image. As such, this study set up the following hypotheses:

H4. Corporate image has a positive impact on brand image.

H4a. In the context of corporate-level CSR, corporate image will positively affect brand image.

H4b. In the context of brand-level CSR, corporate image will positively affect brand image.

Companies are interested in their corporate image because it positively affects marketing activities and corporate achievement (Brown and Dacin, 1997; Lee and Kotler, 2011; Sen and Bhattacharya, 2001). Many previous studies have confirmed that corporate and brand image positively influence performance variables such as purchase intention. According to Yoon et al. (1993), corporate image influences consumers’ purchase intention and strengthens their trust in corporate communication. Bloom and Gundlach (2001) also found that corporate image either directly or indirectly influences purchase intention in a positive manner. Du et al. (2010) and Till and Nowak (2000) asserted that a corporation’s CSR
practices had a significant effect on corporate image, which, in turn, affected purchase intention. This study set up the following hypotheses:

\( H5. \) Corporate image will have a positive effect on purchase intention.

\( H5a. \) In the context of corporate-level CSR, corporate image will positively affect purchase intention.

\( H5b. \) In the context of brand-level CSR, corporate image will positively affect purchase intention.

Kahn and Louie (1990) and Erickson et al. (1984) found that a favorable brand image has a positive effect on a product's perceived quality and value, and positively affects purchase intention. It is also well known that consumers' experience related to CSR could affect their brand attitudes and purchase intention (Youn and Kim, 2008). As such, it would appear that brand image affects purchase intention leading to the following hypotheses:

\( H6. \) Brand image will positively affect purchase intention.

\( H6a. \) In the context of corporate-level CSR, brand image will positively affect purchase intention.

\( H6b. \) In the context of brand-level CSR, brand image will positively affect purchase intention.

The research model of this study is illustrated in Figure 1.

**Methods**

**Samples**

To examine the effects of consumers’ reciprocity perception on purchase intention through corporate image and brand image, from September 1-3, 2015, this study conducted a survey using an online survey company targeting male and female consumers in their 20s-40s. We targeted this age group because these consumers are interested in both CSR and fashion and typically have enough income to buy fashion products. Respondents for the final analysis answered that they would be willing to participate in a boycott of companies that did not conduct CSR (\( m = 4.27 \)). This means that the respondents are interested in CSR. Their average monthly household income was $4,100 and monthly expenditure on apparel was $175, which was higher than Korea's average of $3,644 and $135, respectively (Statistics Korea, 2018). To spend more money on apparel than Korea's average means that they are more interested in fashion. After eliminating 22 insincere responses that did not respond and responded with the same number in every row, 222 responses remained for final analysis. The age demographics of the 222 survey subjects were almost equally divided: 20s (31.5 percent), 30s (33.4 percent), and 40s (35.1 percent). Almost half (46.4 percent) of the respondents said that they had purchased a product from a company...
that conducted CSR activities. *t*-Tests were conducted to verify the equivalence between two groups: respondents who processed the information of corporate-level CSR and respondents who processed the information of brand-level CSR. The results indicate that there were no differences between the two groups. The demographics of the respondents and the results of the *t*-tests are shown in Tables I and II, respectively.

**Survey procedures**

In this study, the subjects were presented with the following stimuli of a fashion company with multiple brands: a stimulus describing corporate-level CSR activities of a company (*n* = 109) and a stimulus describing brand-level CSR activities of a company (*n* = 113). After allowing sufficient time for the respondents to process the information, the participants were asked to evaluate their perceived reciprocity, corporate image, brand image, and purchase intention based on the company’s CSR activities. For a manipulation check on whether they sufficiently understood the details of the stimuli, they were asked questions on whether the details were about corporate-level CSR or brand-level CSR. They were allowed to participate in the full questionnaire survey only if they responded correctly.

To ensure validity and reliability of the experiments, this study created stimuli by referring to previous studies using experiment methods (e.g. Brown and Dacin, 1997; Cho et al., 2017; Voss and Tansuhaj, 1999). These previous studies referred to real companies’ detailed CSR activities for external validity, and used imaginary companies/brands to avoid potential bias.

### Variables

<table>
<thead>
<tr>
<th>Variables</th>
<th>n</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gender</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Male</td>
<td>111</td>
<td>50.0</td>
</tr>
<tr>
<td>Female</td>
<td>111</td>
<td>50.0</td>
</tr>
<tr>
<td>Age</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20-29</td>
<td>70</td>
<td>31.5</td>
</tr>
<tr>
<td>30-39</td>
<td>74</td>
<td>33.4</td>
</tr>
<tr>
<td>40-49</td>
<td>78</td>
<td>35.1</td>
</tr>
<tr>
<td>Average monthly expenditure on apparel</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $80</td>
<td>37</td>
<td>16.7</td>
</tr>
<tr>
<td>$80-$150</td>
<td>76</td>
<td>34.2</td>
</tr>
<tr>
<td>$150-$240</td>
<td>58</td>
<td>26.1</td>
</tr>
<tr>
<td>$240-$320</td>
<td>29</td>
<td>13.1</td>
</tr>
<tr>
<td>&gt; $320</td>
<td>22</td>
<td>9.9</td>
</tr>
<tr>
<td>Average monthly household income</td>
<td></td>
<td></td>
</tr>
<tr>
<td>&lt; $2,400</td>
<td>33</td>
<td>14.9</td>
</tr>
<tr>
<td>$2,400-$3,200</td>
<td>61</td>
<td>27.5</td>
</tr>
<tr>
<td>$3,200-$4,000</td>
<td>31</td>
<td>14.0</td>
</tr>
<tr>
<td>$4,000-$4,800</td>
<td>41</td>
<td>18.5</td>
</tr>
<tr>
<td>$4,800-$5,600</td>
<td>18</td>
<td>8.1</td>
</tr>
<tr>
<td>&gt; $5,600</td>
<td>38</td>
<td>17.1</td>
</tr>
</tbody>
</table>

**Table I.** Demographics of the respondents

<table>
<thead>
<tr>
<th>CSR at the corporate level</th>
<th>CSR at the brand level</th>
<th>t</th>
<th>p</th>
</tr>
</thead>
<tbody>
<tr>
<td>Age</td>
<td>34.48</td>
<td>33.82</td>
<td>0.542</td>
</tr>
<tr>
<td>Average monthly expenditure on apparel</td>
<td>5,198</td>
<td>5,029</td>
<td>0.192</td>
</tr>
<tr>
<td>Average monthly household income</td>
<td>194.2</td>
<td>243.6</td>
<td>−1.179</td>
</tr>
</tbody>
</table>

**Table II.** The results of *t*-test about demographics
caused by existing brands and corporate images for internal validity. This study was based on the CSR activities of Gap Inc., which has several brands, to create stimuli, but this study presented the stimuli as an imaginary company and brands. The stimuli described an imaginary apparel company manufacturing and selling clothing for both men and women and its CSR activities. The experiment presented an imaginary company “A,” and virtual brands, “B,” “C,” and “D.” Examples of each stimulus scenario are presented in Appendix.

The measurement items were derived from previous studies and were modified to reflect the context of the current study. Table III shows the scales used in the final analysis and the sources of the scales. The questions consisted of a seven-point Likert scale ranging from 1 point for “strongly disagree or highly unlikely” to 7 for “strongly agree or highly likely.”

**Results**

*Reliability and validity of the measures*

Mean analysis and $t$-tests were conducted to verify whether the respondents perceived reciprocity or not using SPSS 22.0. The results showed that the respondents perceived reciprocity because the mean value of their reciprocity perception was 4.554, and the mean difference between company-level CSR and brand-level CSR was not significant ($t = 0.852$, $p = 0.395$). Then, this study used SPSS 21.0 and AMOS 22.0 to check the reliability, convergent validity, and discriminant validity of the measures through reliability analysis and confirmatory factor analysis (CFA). The CFA model’s CFI and GFI were more than 0.90, RMR was 0.044, and RMSEA was 0.065 ($\chi^2 = 93.089$, $df = 48$, $p = 0.000$, GFI = 0.936, AGFI = 0.895, CFI = 0.977). Because the path coefficients of the CFA model were all significant, and the AVE of constructs was more than 0.50, and the

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<table>
<thead>
<tr>
<th>Variables</th>
<th>Scales</th>
<th>Factor loading</th>
<th>Notes: $\chi^2 = 93.089$, $df = 48$, $p = 0.000$, GFI = 0.936, AGFI = 0.895, CFI = 0.977</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocity perception</td>
<td>I feel gratitude toward the company as a community member that can benefit from the CSR activities presented above</td>
<td>0.841</td>
<td>AVE: 0.722</td>
</tr>
<tr>
<td>(Chan and Li, 2010; Chesters and Lawrence, 2008; Morales, 2005)</td>
<td>I think I am indebted to the company as a community member that can benefit from the CSR activities presented above</td>
<td>0.864</td>
<td>CR: 0.886</td>
</tr>
<tr>
<td></td>
<td>I think I need to return the favor for the CSR activities presented above</td>
<td>0.841</td>
<td>Cronbach’s $\alpha$: 0.883</td>
</tr>
<tr>
<td>Corporate image (Brown and Dacin, 1997; Winters, 1986)</td>
<td>I think the service level of this company’s is high</td>
<td>0.741</td>
<td>AVE: 0.518</td>
</tr>
<tr>
<td></td>
<td>I think this company manages its business well</td>
<td>0.675</td>
<td>CR: 0.763</td>
</tr>
<tr>
<td></td>
<td>I think this company’s work for environment is good</td>
<td>0.741</td>
<td>Cronbach’s $\alpha$: 0.763</td>
</tr>
<tr>
<td>Brand image (Aaker, 1991; Martinez and Chernatony, 2004)</td>
<td>I can trust the products of these brands</td>
<td>0.887</td>
<td>AVE: 0.686</td>
</tr>
<tr>
<td></td>
<td>These brands play a leading role in the industry</td>
<td>0.829</td>
<td>CR: 0.924</td>
</tr>
<tr>
<td></td>
<td>These brands’ image is differentiated from other brands</td>
<td>0.769</td>
<td>Cronbach’s $\alpha$: 0.887</td>
</tr>
<tr>
<td></td>
<td>These brands are friendly</td>
<td>0.801</td>
<td>$\chi^2 = 93.089$, $df = 48$, $p = 0.000$, GFI = 0.936, AGFI = 0.895, CFI = 0.977</td>
</tr>
<tr>
<td>Purchase intention (Fournier, 1998)</td>
<td>I will recommend the products of the company presented above to people around me</td>
<td>0.885</td>
<td>AVE: 0.817</td>
</tr>
<tr>
<td></td>
<td>I want to purchase the products of the company presented above</td>
<td>0.938</td>
<td>CR: 0.931</td>
</tr>
<tr>
<td></td>
<td>I will consider purchasing the products of the company presented above, for sure</td>
<td>0.878</td>
<td>Cronbach’s $\alpha$: 0.930</td>
</tr>
</tbody>
</table>
composite reliability was more than 0.70 (Fornell and Lacker, 1981), the convergent validity was confirmed. According to Fornell and Lacker (1981), for the construct to demonstrate discriminant validity, all construct AVE estimates should be larger than the corresponding squared inter-construct correlation (SIC) estimates. Based on this criterion, all constructs except corporate image and brand image passed the criteria, but the AVE of corporate image (0.518) and brand image (0.686) was lower than the SIC of corporate image or brand image (0.865). To delve into the discriminant validity issue further, we referred to Anderson and Gerbing (1988) and Dunn et al.’s (1994) test of discriminant validity. According to this method, correlations among the latent variables of the measurement model were compared to those of the theoretical model, in which all the correlations between the latent variables are fixed to 1. For the model comparison, a $\chi^2$-test is recommended. If the $\chi^2$ difference test is significant, then the constructs are considered to possess discriminant validity and the latent variables are considered to measure distinct constructs. Thus, we calculated the $\chi^2$ statistics and tested the difference. The $\chi^2$ statistics for the constrained model (theoretical model) and the unconstrained model were 25.01 (df = 9) and 11.39 (df = 8), respectively, showing a significant difference ($\Delta \chi^2 = 2.71, p < 0.01$). Therefore, we decided to maintain the two constructs in the research model. Table II shows the CFA results, and Table III shows the inter-construct correlation estimates (Table IV).

Effect of consumers’ reciprocity perceptions of CSR

Corporate-level CSR. AMOS 22 was used to analyze the conceptual model of the samples ($n = 109$) which assessed corporate-level CSR activities. The fit indices of the model were satisfactory; thus, it was confirmed that the model was in accordance with the data ($\chi^2 = 53.291$, df = 48, RMR = 0.038, GFI = 0.921, AGFI = 0.872, CFI = 0.995). The reciprocity perception in relation to corporate-level CSR activities had a meaningful impact on purchase intention; therefore, $H1a$ was supported, indicating that reciprocity perception alone positively influences purchase intention. The impact of reciprocity perception on corporate image was significant at $p < 0.01$; therefore, $H2a$ was supported. However, the impact on brand image was not significant; thus, $H3a$ was rejected. The impact of corporate image on brand image was significant at $p < 0.01$; thus, $H4$ was supported. However, the impact on purchase intention was not significant; thus, $H5a$ was rejected. The impact of brand image on purchase intention was significant at $p < 0.01$; thus, $H6a$ was supported.

When it comes to CSR at the corporate level, reciprocity perception positively and directly affected purchase intention, which implies that even if consumers just perceive reciprocity for corporate-level CSR, it can induce purchase intention. However, although corporate image positively affected brand image, it did not increase purchase intention all by itself. Corporate image had a positive influence through brand image. To check the indirect effects of reciprocity perception on purchase intention through corporate image and brand image, we conducted bootstrapping using AMOS 22. As a result, the indirect effects of reciprocity perception on brand image ($p = 0.004$) and purchase intention ($p = 0.014$) were significant, and thus the mediating effect of brand image was verified. However, the

<table>
<thead>
<tr>
<th></th>
<th>Corporate image</th>
<th>Brand image</th>
<th>Purchase intention</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocity perception</td>
<td>0.729</td>
<td>0.698</td>
<td>0.673</td>
</tr>
<tr>
<td>Corporate image</td>
<td>0.930</td>
<td>0.833</td>
<td></td>
</tr>
<tr>
<td>Brand image</td>
<td>0.857</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table IV. Inter-construct correlation estimates
indirect effects of corporate image on purchase intention were not significant. Therefore, reciprocity perceived by corporate-level CSR positively affected corporate image, and corporate image positively affected brand image, through which purchase intention was positively affected. The verified outcomes of the study model of corporate-level CSR activities are shown in Tables V and VI.

**Brand-level CSR.** The conceptual model of the samples \((n = 113)\) which assessed brand-level CSR activities was analyzed. Indices of the model were satisfactory; thus, it was confirmed that the model was in accordance with the data \((\chi^2 = 94.166, \text{ df} = 48, \text{ RMR} = 0.066, \text{ GFI} = 0.889, \text{ AGFI} = 0.820, \text{ CFI} = 0.951)\). The impact of reciprocity perception on purchase intention was not significant, so that \(H1b\) was rejected. The impact of reciprocity perception on corporate image was significant at \(p < 0.01\); therefore, \(H2b\) was supported. However, the impact of reciprocity perception on brand image was not significant, and \(H3b\) was not supported. The impact of corporate image on brand image was significant at \(p < 0.01\), supporting \(H4\). In addition, \(H5b\) was supported since the impact of corporate image on purchase intention was marginally significant at \(p < 0.1\). However, the impact of brand image on purchase intention turned out to be insignificant, rejecting \(H6b\).

When it comes to brand-level CSR, reciprocity perception positively increased purchase intention through corporate image. Corporate image which was formed by brand-level CSR

<table>
<thead>
<tr>
<th>Path (corporate-level CSR)</th>
<th>Standardized estimate</th>
<th>CR</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocity perception → purchase intention ((H1a) supported)</td>
<td>0.241</td>
<td>2.273</td>
<td>0.023</td>
</tr>
<tr>
<td>Reciprocity perception → corporate image ((H2a) supported)</td>
<td>0.465</td>
<td>6.008</td>
<td>0.000</td>
</tr>
<tr>
<td>Reciprocity perception → brand image ((H3a) rejected)</td>
<td>0.090</td>
<td>1.128</td>
<td>0.239</td>
</tr>
<tr>
<td>Corporate image → brand image ((H4 supported)</td>
<td>0.898</td>
<td>5.794</td>
<td>0.000</td>
</tr>
<tr>
<td>Corporate image → purchase intention ((H5a) rejected)</td>
<td>−0.209</td>
<td>−0.359</td>
<td>0.719</td>
</tr>
<tr>
<td>Brand image → purchase intention ((H6a) supported)</td>
<td>1.092</td>
<td>2.279</td>
<td>0.051</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Path (brand-level CSR)</th>
<th>Standardized estimate</th>
<th>CR</th>
<th>(p)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reciprocity perception → purchase intention ((H1b) rejected)</td>
<td>−0.135</td>
<td>0.747</td>
<td>0.455</td>
</tr>
<tr>
<td>Reciprocity perception → corporate image ((H2b) supported)</td>
<td>0.439</td>
<td>5.668</td>
<td>0.000</td>
</tr>
<tr>
<td>Reciprocity perception → brand image ((H3b) rejected)</td>
<td>−0.049</td>
<td>−0.389</td>
<td>0.698</td>
</tr>
<tr>
<td>Corporate image → brand image ((H4 supported)</td>
<td>1.161</td>
<td>3.920</td>
<td>0.000</td>
</tr>
<tr>
<td>Corporate image → purchase intention ((H5b) supported)</td>
<td>1.582</td>
<td>1.665</td>
<td>0.096</td>
</tr>
<tr>
<td>Brand image → purchase intention ((H6a) rejected)</td>
<td>0.022</td>
<td>0.038</td>
<td>0.970</td>
</tr>
</tbody>
</table>

**Table V.** SEM results

**Table VI.** Standardized total/direct/indirect effects

---

**Notes:** TE, total effect; DE, direct effect; IE, indirect effect. *\(p < 0.1\); **\(p < 0.05\)
played a mediating role between reciprocity perception and purchase intention. To check the indirect effects of corporate image, we conducted bootstrapping using AMOS 22. As a result, the direct effects of reciprocity perception on corporate image (0.776, \( p = 0.004 \)) and the indirect effects of reciprocity perception on purchase intention (0.795, \( p = 0.014 \)) were significant, and the mediating effect of corporate image was verified. In the context of brand-level CSR, although an elevated corporate image by reciprocity perception positively affected brand image, the brand image did not significantly affect purchase intention. The verified outcomes of the study model of brand-level CSR activities are shown in Tables V and VI.

**Multi-group comparison of corporate-level CSR and brand-level CSR**

Although it was not hypothesized, this study conducted a paired t-test and a multi-group comparison between the group evaluating corporate-level CSR and the group evaluating brand-level CSR given the lack of previous studies indicating how the paths of a conceptual model are different according to CSR type (i.e. corporate-level CSR and brand-level CSR). The findings indicated that there was no significant difference between corporate-level CSR (\( m = 4.628 \)) and brand-level CSR (\( m = 4.490, t = 0.852, p = 0.395 \)), based on the results of the paired t-tests to determine if there was a significant difference in participants’ reciprocity perceptions between the two types of CSR.

The results of the multi-group comparison indicated that there was no significant difference in fit indices between the unconstrained model (Model 1) and the constrained factor-loading model (Model 2). Comparing the constrained factor-loading model (Model 2) and the invariant structural weight model (Model 3) confirmed no significant difference. To further check how the paths of the two groups were specifically different, this study analyzed the \( \chi^2 \) differences between the constrained model and unconstrained model. Each path was compared when it was constrained and when it was unconstrained. The results revealed significant differences in the three paths including the effects of reciprocity perception on purchase intention, the effects of reciprocity perception on corporate image, and the effects of brand image on purchase intention. Each value of \( \Delta \chi^2 \) was 12.53 (df = 4), 58.862 (df = 2), and 10.23 (df = 2), respectively. For corporate-level CSR, reciprocity perception directly affected purchase intention, which is significantly different from brand-level CSR. This indicates that only in the context of corporate-level CSR, reciprocity perception can directly improve purchase intention. As for the effects of reciprocity perception on corporate image, corporate-level CSR is significantly higher than brand-level CSR. As for the effects of brand image on purchase intention, corporate-level CSR is significantly higher than brand-level CSR. The results imply that there is no difference in the extent of reciprocity perception formed by corporate-level CSR and brand-level CSR. However, the reciprocity perception formed by corporate-level CSR has more influence on purchase intention and corporate image. In addition, the impact of brand image on purchase intention is stronger for corporate-level CSR.

**Conclusion**

This study empirically confirmed consumers’ reciprocity perception of a fashion company’s corporate-level and brand-level CSR, and demonstrated the paths affecting purchase intention through the mediating role of corporate image and brand image.

**Theoretical implications**

There are several theoretical implications. This study developed and examined a model on the direct and indirect relationships between reciprocity perception and purchase intention mediated by corporate image and brand image in two contexts: corporate-level CSR and...
brand-level CSR. Our findings confirm Cho et al. (2017) who also found that reciprocity perception can increase purchase intention both directly and indirectly.

This study also shows that these relationships can be different depending on which one is an agent: corporate or brand. Once consumers processed corporate-level CSR information, they perceived reciprocity toward the companies’ positive CSR activities for their communities. This may directly impact purchase intention and improve the corporate image and brand image, and eventually increase purchase intention through this mediation of the two types of image. We also confirmed that CSR improves corporate image first, and then the corporate image improves brand image rather than directly improving brand image. These results confirm Haedrich (1993) and Simmons and Lynch (1991) who reported that the corporate image can improve brand image.

Finally, this study investigated whether the effect of reciprocity perception shaped by corporate-level CSR was greater than that shaped by brand-level CSR. The effect of reciprocity perception shaped by brand-level CSR on purchase intention was insignificant, but reciprocity perception shaped by corporate-level CSR was significant. The effect of reciprocity perception shaped by corporate-level CSR on corporate image was also greater than the perception shaped by brand-level CSR. The effect of brand image shaped by corporate-level CSR on purchase intention was also greater than the brand image shaped by brand-level CSR because corporate activity had more influence than brand activity.

**Managerial implications**

These results can help multi-brand fashion companies determine their CSR strategy considering their current situation and brands. First, to impact the brand image, corporate image, and purchase intention, consumers must strongly perceive reciprocity. This study reveals that there is no significant difference in reciprocity perception between corporate-level and brand-level CSR, so it is not important which one is the subject of the CSR activities. However, it is important for consumers to perceive reciprocity. Companies/brands must help consumers appreciate companies'/brands' efforts and feel obligated to return the favor by emphasizing that the companies'/brands' CSR is working to improve the welfare of the consumers' communities. This confirms Cho et al.'s (2017) study suggesting that companies/brands should emphasize in-group identity to encourage consumers to appreciate the company and feel obligated to return the favor (Cho et al., 2017).

Second, when multi-brand fashion companies can control the whole company's assets and strategies or have a strong corporate image, they can consider a strategy to use the control tower of CSR at the corporate level to improve purchase intention directly or through both corporate image and brand image rather than assign CSR function only by brand. This finding is consistent with real business cases such as Gap Inc. Its corporate image is stronger than its brand image (e.g. Banana Republic and Athleta), so that they can conduct corporate-level CSR. The CSR activities include improving factory working conditions, working for greater equality and opportunity, building stronger communities, and protecting the environment. These activities require a huge budget and company-wide agreement. According to their sustainability report, Gap Inc. has consistently emphasized that the brands of the company cooperate to accomplish the goal of CSR, and these CSR activities have helped improve the brand image as well.

Third, unlike Gap Inc., not every company can control the whole company's assets and strategies or have a strong corporate image. Even if the company cannot perform corporate-level CSR or the brand image is stronger than the corporate image, brand-level CSR can improve the entire company’s image, which, in turn, increases brand image and purchase intention. For example, the brand Yoplait has a stronger image than the mother company General Mills. Yoplait has performed brand-level CSR, which, in turn, can improve the whole company's image, the brand image, and purchase intention. Blomqvist and Posner (2004)
argued that a selective approach in which CSR manifests itself in very specific ways is also effective. In the selective approach, CSR efforts are linked more closely to the sub-brand or partnership than the company as a whole. Sainsbury, for example, partnered with the Fair Trade brand to overcome criticism about its company image, which resulted in a key part of rebuilding Sainsbury’s image (Blomqvist and Posner, 2004).

Limitations and future research directions
Despite some contributions, this study has limitations since it only targets about 200 consumers in their 20s-40s, and the target group makes it difficult for the outcome of the study to be generalized. In addition, the study is focused on the fashion industry; thus, the result of this study may not be universally applied to other industries. Further research needs to be conducted in a wide range of industries to examine consumers’ reactions to corporate- and brand-level CSR. This study did not control the price range of branded products. Thus, additional research that controls prices will provide insights about engagement CSR of various price brands such as luxury brands and SPA brands.

References


Further reading


Appendix. Scenario examples

Brand-level CSR: “Company A is a fashion company that manufactures and sells fashion apparel products. This company owns, Brand B, which mainly deals with denim pants, Brand C with mostly jackets, pants, skirts, and shirts for career women, and Brand D with mostly sportswear products. Brand B tries to protect water from pollution by reducing liquid waste from factories while manufacturing their products. Brand C sets a standard to pay adequate wages for their factory employees that are higher than the industry average, and to provide the employees with an opportunity to select a re-training program on their own. Brand D voluntarily offers training programs for apparel manufacturing to needy people in their community to help them find jobs and make an income. The CSR activities of Brands B, C, and D were officially certified by a reliable NGO.”

Corporate-level CSR: “Company A is a fashion company that manufactures and sells fashion apparel products. This company owns, Brand B with mainly denim pants, Brand C with mainly jackets, pants, skirts, and shirts for career women, and Brand D with mainly sportswear products. Company A tries to protect water from pollution by reducing liquid waste from factories while manufacturing their products. Company A sets a standard to pay adequate wages for their factory employees higher than industry average, and to provide the employees with an opportunity to select a re-training program on their own. Company A voluntarily offers training programs of apparel manufacturing to needed people in their community in order for them to find jobs and make incomes. These CSR activities of Company A were officially certified by a reliable NGO.”

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Consumer online purchase behavior of local fashion clothing brands

Information adoption, e-WOM, online brand familiarity and online brand experience

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Abstract
Purpose – The purpose of this paper is to investigate the influence of information adoption, e-WOM, online brand experience and online brand familiarity on consumer online purchase behavior of local fashion clothing brands. The study also examines the influence of central and peripheral route on the consumer information adoption process.

Design/methodology/approach – The research design was cross-sectional. A total of 300 respondents from Bangladesh participated in the self-administered survey who have experienced of purchasing local fashion clothing brand online. Only 273 questionnaires were used in final data analysis after discarding incomplete questionnaires. The study applied PLS-SEM to test the proposed model.

Findings – Central and peripheral route were found to have positive influences on the consumer information adoption process in the context of online purchasing of local fashion clothing brands. Consumer information adoption was found to influence consumer online purchase behavior positively. The information adoption-consumer purchase behavior relationship was found to be partially mediated by e-WOM. Online brand experience was found to influence consumer online purchase behavior positively. The online brand experience-consumer purchase behavior relationship was found to be partially mediated by online brand familiarity.

Originality/value – So far, no studies have investigated how information adoption, e-WOM, online brand experience and online brand familiarity influence consumer purchase behavior of local fashion clothing brand, in a virtual environment under the perspective of a developing country like Bangladesh. This study is also a pioneer in exploring which dimensions have more leverage on central and peripheral route in information adoption in the context of local fashion clothing brand of Bangladesh.

Keywords e-WOM, Consumer’s purchase behaviour, Fashion clothing, Information adoption, Online brand experience, Online brand familiarity

Paper type Research paper

1. Introduction
Fashion clothing houses are no longer expecting profitable growth and expansion by purely focusing on the traditional marketing strategies only; instead, in a favorable market condition, the firms’ marketing mix requires the integration of online marketing tools as well (Alfaro et al., 2004; Hye Park and Stoel, 2002; Kim et al., 2006; Rowley, 2009; Tokatli, 2004). According to contemporary views, an individual in the modern society is often judged by their possessions (Dittmar, 1992; Richins, 1994). One such important possession is fashion clothing. Fashion is defined as “a form of collective behavior, or a wave of social conformity” (Solomon and Rabolt, 2004, p. 19). The existing literature suggests that fashion is linked to an individual’s self-concept and self-actualization (McNeill, 2018; Perry et al., 1983; Peters et al., 2011; Titton, 2015). In the context of fashion, apparels are the most usable products that have both economic and social values in contemporary societies (O’Cass, 2004). Fashion clothing can be viewed as having behavioral and social codes that reflect an individual’s self-identity and social image (Davis, 1994; Piamphongsant and Mandhachitaru, 2008). The more an individual views fashion clothing as an extension of his/her self-identity and
social image, the more involved he/she gets regarding various behavioral aspects related to fashion clothing (Goldsmith et al., 1999; O’Cass, 2001).

Consumer information adoption is one of the crucial antecedents of consumer purchase behavior. Many previous studies have confirmed the role of information adoption on consumer purchase behavior (Cheung et al., 2008; Erkan and Evans, 2016; Moon, 2004). On the other hand, word-of-mouth (WOM) communication also have a significant influence on consumer purchase behavior as consumers tend to depend more on fellow consumers opinions regarding products/services rather than the corresponding firms’ communication messages (Lee and Youn, 2009; Sen and Lerman, 2007). Advance online communication technologies and massive distribution of internet connection have transformed the traditional face-to-face WOM communication to online-mediated WOM (e-WOM) communication, enabling consumers to use various internet-based platforms such as retailers’ websites, brand community, independent websites, consumer blogs, etc., to share experiences and opinions about products/services (Lee and Youn, 2009; Lin et al., 2017; Turban et al., 2017; Wolny and Mueller, 2013). Apart from information adoption and e-WOM, both online brand familiarity and online brand experience have been identified as major determinants of consumer online purchase behavior by previous studies (Ha and Perks, 2005; Morgan-Thomas and Veloutsou, 2013; Park and stoel, 2005). Although there are several studies investigating consumer information adoption, e-WOM, online brand familiarity and online brand experience, the number of studies discussing these concepts in the case of fashion clothing is limited. Furthermore, no studies have been conducted so far investigating these subject matters in the context of local fashion clothing brands of developing countries. Thus, the aim of this study is to examine the influence of information adoption, e-WOM, online brand experience and online brand familiarity on consumer online purchase behavior of local fashion clothing brands in the context of developing countries, taking a typical developing country Bangladesh as a unit of analysis. Also, this study also investigates the inter-dynamics between these concepts and the role of central route and peripheral route on consumer information adoption.

In the context of Bangladesh, the garment manufacturing sector is the nation’s most significant industry which is the world’s second-largest exporter of clothing after China (Islam et al., 2014). A total of 4,482 garment manufacturing factories are currently operating in Bangladesh, satisfying both export and local clothing needs (Bangladesh Garment Manufacturers and Exporters Association, 2018). Four million workers are currently working in the garment manufacturing industry (Bangladesh Garment Manufacturers and Exporters Association, 2018). Along with satisfying export needs, these factories are also satisfying local clothing needs. The nation’s local clothing need is enormous as it has a population of 149.77 million (Bangladesh Bureau of Statistics, 2018). A per capita income of only BDT 2,553 (around USD 31 “as of currency rate of March 10, 2018”) per month (Bangladesh Bureau of Statistics, 2018) suggests that the majority of the Bangladeshi population heavily rely on locally produced clothing rather than high-priced imported clothing. Thus, targeting this prodigious local clothing market, fashion clothing brands have already established their own brand identity by satisfying the need of local consumers by selling their products both offline and online. Aarong, Cats Eye, Richman, Yellow, Ecstasy, Rang, Kay Kraft, Dorjibari, Anjan’s, Bibiana are among the top fashion clothing brands of Bangladesh (Fashion2Apparel, 2018). These fashion houses are continuously expanding their clothing business to satisfy the need of local customers’ unique fashion clothing (Taplin, 2014; Turker and Altuntas, 2014). These local fashion clothing brands produce high-quality textile products and continuously develop numerous popular clothing designs for both local and global consumers. Along with traditional physical selling establishment, many of these fashion houses are selling their products through popular online platforms such as Ajkerdeal.com, PriyoShop.com, Othoba.com and daraz.com.
Customers’ preference seemed to have started changing gradually, in favor of shopping products online in regards to fashion clothing products in Bangladesh (Islam et al., 2014). Thus, an understanding of consumer online purchase behavior and its antecedents with regards to local fashion clothing brands is required. Thus, this study proposes and investigates information adoption, e-WOM and online brand familiarity and online brand experience as crucial antecedents of consumer online purchase behavior in the context of local fashion clothing brands, which may provide in-depth insights for the relevant parties of Bangladesh. Furthermore, this study also examines the inter-dynamics among these variables and the influence of central route and peripheral route on information adoption. Managers and researchers have already pointed out that information adoption, e-WOM, online brand experience and online brand familiarity as critical factors of success for online businesses, which academic studies have overlooked so far in the context of fashion clothing (Rappaport, 2007; Mollen and Wilson, 2010). Thus, this study will offer valuable insights regarding these concepts both for academicians and practitioners.

The rest of the paper is divided into five sections. Section 2 provides the theoretical background of the conceptual framework. Section 3 outlines the methodology of the study. The findings obtained from data analysis are presented in Section 4 along with validation of the scales and the model. Section 5 provides theoretical contribution and implications of the findings. The paper ends with Section 6 where limitations of the study and future directions are presented.

2. Literature review and hypotheses development
Local fashion clothing brands refer to fashion clothing brands local to a specific country, locally designed and produced. Although numerous studies have been conducted on various aspects of fashion clothing brands, very few studies have focused on local fashion clothing brands. Among the notable investigations on local fashion clothing brands, Indian consumers’ purchase behavior, brand equity and purchase intention were examined in the context of Indian fashion clothing brands vs US fashion clothing brands (Kumar, Kim and Pelton, 2009; Kumar, Lee and Kim, 2009; Lee et al., 2010). Clothing interest of Indian consumers was found to influence the emotional value and perceived quality for US fashion clothing brands rather than Indian brands (Kumar, Kim and Pelton, 2009; Kumar, Lee and Kim, 2009), while attitude toward US brands was found to have positive effects on emotional value and perceived quality, whereas it was found to have negative effect in the case of Indian brands (Kumar, Kim and Pelton, 2009; Kumar, Lee and Kim, 2009). Direct and indirect effects of Indian consumers’ need for uniqueness, gender and attitudes toward US fashion clothing brands were found on three dimensions of brand equity: perceived quality, brand loyalty and brand associations with brand awareness, while for Indian fashion clothing brands, these effects are found for just one brand equity dimension: perceived quality (Lee et al., 2010). Another study carried out on Chinese young adults revealed that they prefer fashion clothing brands that have western origin over local origin brands (O’Cass and Siahtiri, 2013). These findings are not surprising as numerous studies on country of origin effects have unfolded that consumers in emerging and developing markets prefer foreign brands over local brands as they perceive the quality and status of foreign brands significantly higher than local brands (Batra et al., 2000; Kinra, 2006; O’Cass and Siahtiri, 2013). Nevertheless, none of these studies focused on consumer online purchase behavior of local fashion clothing brands incorporating information adoption, e-WOM, online brand familiarity and online brand experience.

Day by day, the use of e-WOM is increasing. Although e-WOM reduces the ability to judge the credibility of communication (Popescu et al., 2013), an increasing number of consumers are using e-WOM as it is far greater accessibility and reach than traditional WOM (Orzan et al., 2013). In the case of the fashion industry, e-WOM is increasingly gaining
importance as more and more fashion houses are selling their products online, and recognizing the importance of e-WOM (Kim and Jin, 2006). Therefore, fashion clothing firms should adopt strategies to meet the needs of volatile consumers, enabling the managers in this industry with an understanding of present consumers as well as profiling, implementing the digital marketing tools (Köse and Enginkaya, 2017; Kulmala et al., 2013). Online platforms such as blogs, customer’s online reviews and social networking websites are consumers to discuss and share information regarding various aspects of fashion clothing. One study found that personal style, brands and designers, tips and advice, and retailers are the most popular topics of discussion among the consumers of online fashion clothing communities. These discussions are easily accessible information for fashion clothing consumers, which are ultimately influencing their purchase behavior regarding apparel products (Kang et al., 2014; Köse and Enginkaya, 2017). Thus, fashion marketers are engaging in activities to influence customer-to-customer communication (Corcoran, 2010). Consumer fashion blogs have become a prime interface for fashion marketers regarding encouraging and influencing e-WOM. To obtain and spread a positive review about their products, investing on fashion blogger in the form of gifts or other means has become a very common tactic of the fashion marketers (Kulmala et al., 2013).

e-WOM is defined as any statement made by the actual or potential or former customers about the products that are available to the large number of consumers and institutions via the internet technology (Hennig-Thurau et al., 2004). Many previous studies investigated e-WOM under the context of various industries that have online operations (Dellarocas et al., 2007; Liu, 2006; Zhu and Zhang, 2010). Positive reviews online increases customers’ confidence and reduce their risk and influence their online purchase behavior (Vermeulen and Seegers, 2009). Thus, to integrate the factors that are influencing the adoption of information to create positive e-WOM, this study adopted the elaboration likelihood model (ELM) (Chan and Ngai, 2011; Petty et al., 1983). The ELM is frequently used to measure consumers’ information adoption process in producing positive e-WOM with regards to different types of purchasing involvement (Cheung and Thadani, 2012; Yan et al., 2016). Clothing is expressive and high involvement products. Thus, purchasing of fashion clothing products online is usually considered a complicated decision by the potential and existing consumers’ that requires a rigorous informational search embedded with positive e-WOM (Wolny and Mueller, 2013). Hence, by adopting the ELM model, this study argues that consumers who adopt information will incorporate positive WOM and subsequently take necessary steps to advise or recommends others about the apparel products and outlets through their various online networks (Kang and Kim, 2017; Rootman and Krüger, 2017).

This study also investigates the influence of both central route and peripheral route on consumer’s information adoption. The principle of ELM model is based on “Elaboration Continuum’ that ranges from a low level of elaboration to high level of elaboration (Filieri and McLeay, 2014; Petty et al., 1983). Petty et al. (1983) distinguish this elaboration continuum between a central route and a peripheral route that are responsible for influencing consumers’ attitudinal changes. Consumers can take the central route, which is willing to disseminate information rationally by spending time and quality of information. They can also take the peripheral route as they are less motivated or not willing to process information. They use information generating from the shortcuts process by evaluating the source credibility of the information to make a decision (Petty et al., 1983).

Previous studies on e-WOM under the context of a central route has revealed that the quality of information plays a significant role in consumer purchase behavior in a high involvement situation (Cheung and Thadani, 2012; Wang et al., 2008). Hence, this study analyzes information quality as a combine construct of consumers’ information adoption, and thus influence on positive e-WOM. Consequently, this study takes information...
completeness, timeliness, accuracy, relevancy, understandability and value-added information as the dimensions of central route (Bhattacherjee and Sanford, 2006; Filieri and McLeay, 2014; Wang and Strong, 1996).

The ELM also suggests that individual consumer take a peripheral route in the adoption of information when they are not in the capacity of thinking about information in the context of low-involvement products (Petty et al., 1983; Filieri and McLeay, 2014). In this situation, consumers apply a low level of cognitive effort and use peripheral cues to explain messages (Filieri and McLeay, 2014). The study takes information quantity and overall product ranking as peripheral cues for the information adoption process in generating positive e-WOM, in the context of fashion clothing (Baek et al., 2012; Filieri and McLeay, 2014; Zhou, 2012). For example, in a low elaboration condition, consumers may use information quantity (i.e. the number of reviews per fashion apparel product) and overall fashion clothes ranking instead of reading the full content of the online review. This, this undertaking includes both central (six dimensions) and peripheral (two dimensions) routes. The incorporation of these two constructs may assist the academicians and the practitioners of online fashion clothing products in an understanding of the information adoption process by the consumers in influencing consumer online purchase behavior through e-WOM.

Consumers' purchase intention online is currently growing at a rapid pace and eclipsing the traditional buying process (Ha and Perks, 2005; Turban et al., 2017). This condition is leading to the rapid market entry of the online sellers with new online brand experience for their customers by developing through the innovative use of web technology and online brand familiarity (Brakus et al., 2009; Park and Stoe1, 2005). Experience is defined as a demonstration of a particular subject area with a comparatively high degree of familiarity that is obtained through exposure (Braunsberger and Munch, 1998). For example, consumers who have already been through the process of purchasing online fashion clothing products; their information search, e-WOM and product usage would be considered as their experience. Thus, consumers’ brand experience refers to their knowledge embedded with their responses through sensations, feelings, cognitions, behavioral responses and familiarity with a brand or brand category (Brakus et al., 2009; Zarantonello and Schmitt, 2010). Experience with a brand plays a significant impact than product features and benefits (Erdem and Swait, 2004; Ghodeswar, 2008). On the other hand, brand familiarity is defined as the amount of time consumer spent in processing information about the brand (Baker et al., 1986). Consumers spend less time shopping for a familiar brand than an unfamiliar one (Biswas’s, 1992; Chen and Wells, 1999). A firm’s website delivers relevant and well-organized information for the prospective target consumers. Consumers are more interested to explore the websites in detail of a familiar brand compare to an unfamiliar brand (Iglesias et al., 2011). The existing literature suggests online brand experience relates to online brand familiarity and influence consumer online purchase behavior (Kenny and Marshall, 2000; McWilliam, 2000; Reichheld and Schefter, 2000).

Based on the above discussions, the following hypotheses are proposed for further empirical examination. Figure 1 illustrates the conceptual model of this study:

H1. Central route has a positive significant influence on consumer information adoption process.

H2. Peripheral route has a positive significant influence on consumer information adoption process.

H3. Consumer’s information adoption has a significant positive influence on consumer online purchase behavior of local fashion clothing brand products.

H4. e-WOM mediates the relationship between consumer information adoption and consumer online purchase behavior of local fashion clothing brand products.
**H5.** Online brand experiences have a significant positive influence on consumer online purchase behavior of local fashion clothing brand products.

**H6.** Online brand familiarity mediates the relationship between online brand experience and consumer online purchase behavior of local fashion clothing brands.

### 3. Methodology

The research design was cross-sectional. A pilot survey was carried out to assess the content validity of the survey instrument. Based on the feedback from the pilot survey, the revised questionnaire was used in the main survey. A total of 300 respondents participated in the self-administered survey who have experience of purchasing a local fashion clothing brand online. Only 273 questionnaires were used in final data analysis after discarding incomplete questionnaires. Variables controlled for were gender, income and age following the stratified (proportionate) sampling approach. The majority of respondents were between the ages of 25 and 35 (90.5 percent of respondents), while rest of the respondents were between the ages of 20 and 25 (9.5 percent). This disproportionate predominance of an age range group may also represent a limitation of the study. However, this predominance age cohort is also a reflection of online purchasers of local fashion clothing brand products of Bangladesh. Regarding education, 70 percent of the respondents already have a postgraduate degree, and rest of the 30 percent respondents either possess or pursue an undergraduate degree. The majority of our sample was composed of individuals who are staying in the capital of Bangladesh originating from different parts of Bangladesh: Dhaka (40 percent), Chittagong (30 percent), Rajshahi (10 percent), Barishal (5 percent), Comilla (10 percent) and Mymensingh (5 percent). The respondent’s average expenditure on local fashion clothing brand products in the past 12 months was approximately BDT 6,000 (around USD72 “as of currency rate of March 17, 2018”).

The model has two second-order constructs: central route and peripheral route. Central route was measured using six first-order constructs: information timeliness, information completeness, information accuracy, information relevancy, information understandability and value-added information. Two-item scales were used to measure each of information timeliness (e.g. “I adopt timely online reviews”), information completeness (e.g. “The information I obtain from online reviews is of sufficient depth”), information accuracy (e.g. “The information I obtain from online reviews is accurate”), information relevancy (e.g. “The information I get...”)
through online reviews is relevant as it matches my needs”), information understandability (e.g. “The information I obtain from online reviews is easy to understand”) and value-added information (e.g. “The information I obtain from online reviews enables me to understand both the positive and the negative aspects of specific fashion clothing products”), adapting from Filieri and McLeay (2014). The peripheral route was measured using two first-order constructs: information quantity and product ranking. Two-item scales were used to measure each of information quantity (e.g. “I adopt online reviews when the number of reviews per fashion clothing products is large”) and product ranking (e.g. “The (overall) ranking of different local brand fashion apparel outlets facilitates the evaluation of the alternatives available”), adapting from Filieri and McLeay (2014). A three-item scale was adapted from Filieri and McLeay (2014) to measure information adoption (e.g. “I put much effort into evaluating the given information from online”). Online brand experience (e.g. “I often like to participate in the community of the online fashion clothing”) was measured adapting a three-item scale from Ha and Perks (2005). To measure online brand familiarity (e.g. “I am always aware of the brand on the web”), a three-item scale was adapted from Ha and Perks (2005). A four-item scale was adapted from Park et al. (2011) to measure perceived e-WOM credibility (e.g. “I believe the online review which been read a lot”). Consumer purchase behavior (e.g. “I will continuously purchase clothes at the same site (online) in the future”) was measured adapting an eight-item scale from Park and Kim (2003). The questionnaire was primarily composed of closed-ended questions measured using a seven-point Likert-type scale, and PLS-SEM was used to test the proposed model. Smart PLS 3.0 software was used. PLS algorithm, bootstrapping with 5,000 subsamples, and blindfolding with omission distance set at 7 were run to obtain the necessary outputs. The second-order constructs central rote and peripheral route were set up using repeated indicators approach as all the related lower-order constructs for both the second-order constructs have an equal number of items.

4. Data analysis
To assess the constructs, internal consistency, convergent validity and discriminant validity were examined. To check internal consistency, composite reliability values of the constructs were assessed. All composite reliability values (Table II) were between 0.70 and 0.90, which is the satisfactory range (Nunally and Bernstein, 1994). Average variance extracted (AVE) values of the constructs and outer loadings of the indicators were assessed to check convergent validity. All the AVE values (Table II) were over the suggested threshold 0.5 (Hair et al., 2014). Except for the indicators CPB3, CPB4 and CPB5, outer loadings of all the indicators (Table I) were above the suggested level 0.708 (Hair et al., 2014). The three indicators with outer loading values below 0.708, however, were retained as removing them did not result in any significant improvement of composite reliability or AVE of the consumer purchase behavior construct. Heterotrait-monotrait (HTMT) ratios were investigated to check discriminant validity. Discriminant validity was attained as all the HTMT values (Table III) are below the suggested level 0.85 (Henseler et al., 2015) (Tables I-III).

To assess the overall model, multicollinearity issues among related exogenous variables, the explanatory power of the model through endogenous variables and predictive relevance of the endogenous variables were investigated. All VIF values (Table III) were well below 5, implying there were no multicollinearity issues. $R^2$ for the endogenous variables information adoption and consumer purchase behavior were 0.640 and 0.735 (Figure 2), respectively; suggesting the good explanatory power of the model. Information adoption and consumer purchase behavior both have sufficient predictive relevance as Stone-Geisser $Q^2$ values were well over 0 (0.428 for information adoption and 0.383 for consumer purchase behavior).

$H1$ and $H2$ both were supported as central route and peripheral route was found to have a significant ($p < 0.05$) positive influence on information adoption (Figure 2). Evidence was found regarding information adoption having a significant ($p < 0.05$) positive impact on
consumer purchase behavior, thus supporting $H_3$ (Figure 2). Perceived e-WOM credibility was found to partially mediate the relationship between information adoption and consumer purchase behavior as the information adoption-consumer purchase behavior, information adoption-perceived e-WOM credibility and perceived e-WOM credibility-consumer purchase behavior relationships (Figure 2) were found significant ($p < 0.05$), thus supporting $H_4$. $H_5$ was supported as the online brand experience was found to have a significant ($p < 0.05$) positive impact on consumer purchase behavior (Figure 2). Online brand familiarity was found to partially mediate the relationship between online brand experience and consumer purchase behavior as the online brand experience-consumer purchase behavior, online brand experience-online brand familiarity and online brand familiarity-consumer purchase behavior relationships (Figure 2) were found significant ($p < 0.05$), thus supporting $H_6$. 

<table>
<thead>
<tr>
<th>Variable</th>
<th>Item</th>
<th>Outer loading</th>
<th>Variable</th>
<th>Item</th>
<th>Outer loading</th>
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<td>IU2</td>
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<tr>
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<td></td>
<td>OBF3</td>
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Table I. Outer loadings
<table>
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<th>Composite reliability ((\rho_c))</th>
<th>Central route</th>
<th>Peripheral route</th>
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<tr>
<td>Information timeliness</td>
<td>0.790</td>
<td>0.692</td>
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<tr>
<td>Information completeness</td>
<td>0.778</td>
<td>0.847</td>
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</tr>
<tr>
<td>Information accuracy</td>
<td>0.773</td>
<td>0.780</td>
<td></td>
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<tr>
<td>Information relevancy</td>
<td>0.788</td>
<td>0.796</td>
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<tr>
<td>Information understandability</td>
<td>0.847</td>
<td>0.869</td>
<td></td>
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<tr>
<td>Value-added information</td>
<td>0.812</td>
<td>0.786</td>
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<tr>
<td>Information quantity</td>
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<td>Product ranking</td>
<td>0.803</td>
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Table II. Average variance extracted (AVE), composite reliability \((\rho_c)\) and path coefficients between first- and second-order constructs.

<table>
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<tr>
<th>Variable</th>
<th>VIF</th>
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<td>Information adoption</td>
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<td>Online brand experience</td>
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<tr>
<td>Perceived e-WOM credibility</td>
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<td>Online brand familiarity</td>
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Table III. Variance inflation factor (VIF) for related exogenous variables and heterotrait-monotrait (HTMT) ratio.

Figure 2. Structural equation model.

Notes: **\(p<0.01\); ***\(p<0.001\)
5. Discussion and implications

Based on standardized path coefficients and significance levels, under the central route construct, informational understandability was found as the highest contributor to central route followed by information completeness, information relevancy, value-added information (Table II). On the other hand, under the construct of the peripheral route, product ranking contributes more to the construct than information quantity (Table II). In regards to the second-order construct for consumer information adoption process in purchasing local fashion clothing brand products online, the peripheral route has the highest coefficient ($\beta = 0.499$), followed by the central route ($\beta = 0.349$). These results infer that online shoppers of fashion clothing products adopt information based on the volume of comments in their respective networks and strongly apply information such as overall brand or a producer ranking that draws evaluations provided by all the online fashion clothing purchasers of local brands. In fact, the overall ranking of the clothes under each online fashion sellers provides an indicator of product quality and product popularity among the fashion clothing purchases when adopting information from online reviews.

Customers are concerned about time and effort when they search information for purchasing (Solomon, 2014). Thus, overall product ranking helps the online fashion clothing purchasers to reduce their time in searching as well as identification of the best-ranked fashion outlet in their respective price range. For instance, information about a specific design of clothing by an online fashion outlet ranked in the first position due to the review results of maximum users will be more influential than the fashion outlet which reviews by a lesser number of customers online.

This study also confirms that information quantity is a significant factor in information adoption which influences positive e-WOM (Cheung and Thadani, 2012; Dellarocas et al., 2007). Above all, this study infers that on-line purchase of local fashion clothing brands requires the adoption of information through the influence of both the central and peripheral routes constructs. The existence of both positive and negative information provides online consumers critical understanding that helps them to evaluate apparel products better.

The findings also suggest that consumer information adoption process has a positive significant influence on consumer online purchase behavior of the local fashion clothing brand. Thus, the significant predictor to purchase local brand fashion products is the fulfillment of information adoption process. Thus, consumers purposefully engage in using information for scanning the opinions and comments posted by others online purchasers before they make a final buying decision (Cheung et al., 2008; Peng et al., 2016).

e-WOM was found to mediate the relationship between information adoption and consumer online purchase behavior of local fashion clothing brand products. Thus, positive e-WOM online social media allows consumers of local fashion clothing brands to not only obtain information related to fashion products from known, nearby consumer groups, but also from a vast, geographically dispersed group of consumers who have experience with relevant local fashion clothing brand products (Ratchford et al., 2001).

Products consist of various brand-specific stimuli, such as brand-identifying colors, shapes, design elements, slogans, brand characters (Brakus et al., 2009; Morgan-Thomas and Veloutsou, 2013). Thus, these brand-specific stimuli appear as part of a brand’s design, identity and marketing communications online. These brand-related stimuli are embedded with the significant sources of consumers’ subjective and internal responses toward the brand, which may refer to as “brand experience” for the online consumers. The findings of this study imply that online brand experience positively influences consumer online purchase behavior of local fashion clothing brands. Hence, online local brand fashion clothing brand consumers expect the websites of the sellers to offer them a positive experience through the quality of website that delivers relevant and well-structured information in an interactive manner (Ha and Perks, 2005).
Furthermore, the results indicate that online brand familiarity mediates the relationship between online brand experience and consumer online purchase behavior of local fashion clothing brand products. Thus, online brand experience, combined with online familiarity, influences consumer online purchase behavior (Kenny and Marshall, 2000; McWilliam, 2000).

5.1 Theoretical contribution
This study attempted to fill the gap in the existing literature by identifying the significant antecedents of consumer online purchase behavior of local fashion clothing brand products embedded with central and peripheral route, information adoption process, positive e-WOM, online brand experience and online brand familiarity in a conceptual framework. Particularly, this study investigated the roles of central and peripheral cues influencing consumer information adoption process in the virtual environment in the context of local fashion clothing brand from the perspective of developing countries. From a theoretical point of view, our results in the context of the fashion industry are new as no previous research has investigated the influence of both central and peripheral cues on local fashion clothing brand products in the consumer information adoption process. Furthermore, the conceptual model includes a set of other factors that have never been tested together previously in the context of fashion clothing.

Above all, this research also employed the information adoption model to measure the effectiveness of positive e-WOM, which was developed from the theory of reasoned action (TRA) and the technology acceptance model (TAM) (Ajzen and Fishbein, 1980; Fishbein and Ajzen, 1975; Sussman and Siegal, 2003). Both the TRA and the TAM explain those consumers adopts a technology behavior such as e-WOM from their intention and believe about the consequences of using a particular technology. Therefore, this study contributes to the existing electronic WOM literature.

5.2 Implications for practice
This study examined significant antecedents that are influencing consumer online purchase behavior of local fashion clothing brand incorporating information adoption, e-WOM, online brand experience and online brand familiarity and their inter-dynamics. Hence, findings of this study can provide a significant contribution in assisting local fashion clothing houses specifically in Bangladesh. From the managerial context, managers of local fashion clothing brands in Bangladesh should be aware that online reviews in different social media consumers can assume the roles of co-marketers.

This study found that the central and peripheral routes were influencing the information adoption process within an online consumer’s community. Therefore, online fashion clothing firms should actively involve various online consumer communities and provide all the relevant information about their offerings. Besides, it is urgent for the online fashion clothing sellers to improve their understanding of the messages by the consumers through e-WOM. Therefore, online local fashion clothing brands need to encourage reviewers to post high-quality reviews with a detailed description of their apparel products, combined with their past and present buying experience. Hence, the seller may provide in-depth information online and offline tools to position better in the mind of consumers. This will attract more users to the online local clothing stores. Establishing a strong online brand presence by the fashion clothing producers is essential for increasing a consumer’s interest in purchasing a specific brand. Thus, managers of online fashion clothing sellers should demonstrate the consistent reflection of their firm’s image, which is perceived to be significant for evaluating the locally made fashion clothing products. Furthermore, managers should enhance customer’s online brand experience to influence online brand familiarity to ultimately influence consumer purchase behavior. Online fashion clothing sellers should monitor customer’s interests by providing them continuous cookies and
fostering online communities with information where customers can share their brand experiences. For example, customers expect continuous information on new designs of fashion clothes. Therefore, the online sellers may enhance consumer's virtual experience by involving them with various interacting online tools such as 3D simulation in an online environment. Above all, the firms in the online industry in the context of a local fashion clothing brand need to empower their target customers to spread the positive perception about their locally brand fashion clothing brands and monitoring the company's marketing goals.

6. Limitation and future directions
This study tested the proposed conceptual model only among the consumers who like to purchase local fashion clothing brand products online. Therefore, a replication of the study among the consumers of all brands (both local and international) in a comparative analysis will be more useful. Future studies may explore the moderation effect of gender in between the relationship of e-WOM and purchase behavior. Furthermore, future researchers may also take other antecedents like the website design and layout as the moderation variable in between brand experience and purchase behavior. Also, the study is cross-sectional, and the sample size is relatively small. A bigger sample size would be helpful in strengthening the findings of the study.

References


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Fashion bloggers: communication tools for the fashion industry

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Abstract
Purpose – The purpose of this paper is to investigate fashion blogs’ influence on Spanish Millennials’ buying behaviour.

Design/methodology/approach – This research is quantitative in nature, utilising a mono method consisting of structured self-administered questionnaires. Data were exported to IBM SPSS Statistics, where different types of analyses were combined – such as frequencies, means, hypothesis testing analyses, principal components analysis or K-means cluster.

Findings – Findings show that the most important motivations to follow a fashion blog are entertainment and information seeking. Besides, consumers’ attitudes seem to be influenced by how consumers assess credibility, which is determined by trustworthiness, para-social interaction (PSI), expertise and message credibility. Finally, after showing covert and overt marketing posts, both trustworthiness and PSI were lower than before, identifying PSI as a possible moderator in these cases.

Research limitations/implications – The main limitation of this study is the sample size, which does not make it possible to generalise conclusions.

Practical implications – From this research, it can be said that, due to the importance of establishing a strong relationship with the public, bloggers should try to connect with readers on an emotional level, and brands need to select bloggers very carefully.

Originality/value – This paper reveals Millennials’ attitudes whilst they are visiting a fashion blog and the influence that these attitudes can exercise on their purchase intention.

Keywords Fashion, Spain, Millennials, Communication, Buying behaviour, Fashion bloggers

Paper type Research paper

1. Introduction
Fashion bloggers are one of the newest players in the fashion industry and they perfectly represent the progressive democratisation of fashion and communication that we are witnessing nowadays (Allen, 2009). They have brought a shift of control from sender to receiver (Allen, 2009; Halvorsen et al, 2013), since they present a democratic user-generated medium (Jean-Kenix, 2009) that facilitates a quick diffusion of fashions and trends. Besides, they are generally recognised as an effective interpersonal communication channel in influencing consumers’ decision-making processes due to their perceived credibility (Hahn and Lee, 2014; Kulmala et al, 2013; Sadaba and SanMiguel, 2016). This credibility can be related to their independence of the fashion business and their assumed role as experts, which have motivated the public to give power to them. Within the Spanish context, in which we are going to focus, according to some rankings, the most influential bloggers are LovelyPepa, Dulceida, Trendy Taste or Amlul[1].

New technologies have been the cause of fashion bloggers’ birth, but, at the same time, they have also encouraged the prosumer figure, that is, someone who produces and consumes content (Toffler, 1981). Among these new consumers, Generation Y, also referred to as Millennials, are especially relevant since they present special characteristics that make them approach brands in a different way, along with different purchasing habits, more
related to technology (O’Connor, 2016). For them, blogs, that are informal websites run by an individual or small group, have become a reference (Allen, 2009). Therefore, this study will focus on the Millennial generational cohort – from 18 to 36 years old, according to Bolton et al. (2013) – since they are the most influenced group by blogs. As Bazaarvoice’s study reveals, to the question of “how much does user-generated content play in your purchase decisions?” 25 per cent of Millennials answered “a lot” and 59 per cent answered “some”[2], which justifies our focus on this generation.

However, these consumers seem to be progressively less interested in the proper fashion blogs – understood as individual websites that “report extensive brand and product experiences including self-fashioning through outfits, information sharing and tips about fashion” (Kretz and de Valck, 2013, p. 63) – and more in other social networks, such as Instagram or YouTube (Lenhart et al., 2010). Hence, now bloggers share their content through several channels, and when a reference to a blog is made throughout this paper, it refers to the creator activity related to a blog within all these dissemination platforms.

Thus, due to the important influence of fashion blogs and its implications on the marketing activities of fashion companies, the aim of this study is to investigate the fashion blogs’ influence on Spanish Millennials’ buying behaviour. In order to fulfil that aim, the subsequent objectives are proposed:

- O1: identify the most valued motivations for Millennials to follow a fashion blogger.
- O2: measure the impact of fashion blog credibility on purchase intention and consumers’ attitude.
- O3: test whether there is a different impact of covert and overt marketing in fashion blogs on purchase intention and consumers’ attitude.

2. Literature review

2.1 Millennials and their motivations to follow fashion blogs

There is no general agreement on the start and end of Generation Y, so this study, following Bolton et al. (2013), will broadly define them as everyone born between 1981 and 1999. This generation, commonly referred to as Millennials (Colucci and Cho, 2014; O’Connor, 2016), present a series of characteristics that are fully transforming the fashion marketplace (Pate and Adams, 2013). They are a global generation formed by demanding consumers (Pate and Adams, 2013), who want instant gratification and who are constantly seeking purchasing information (Goldsmith and Horowitz, 2006), trying to keep up with the latest fashions (Cheng and Fang, 2015). They also have a strong sense of autonomy, wanting to decide by themselves and choose what to buy independently (O’Reilly and Marx, 2011), but at the same time, they are perfect team-players (Pate and Adams, 2013) who rely on the opinions of other consumers during their purchasing process (Liljander et al., 2015). However, their main difference with respect to other generations is based on their use of technology: they are the first generation of digital natives (Bolton et al., 2013), so buying online and communicating through social networks are common daily actions for them.

In this context, marketers must be aware that these young consumers rely more on this non-traditional media (Cheong and Morrison, 2008), because they look for genuine and honest recommendations (Liljander et al., 2015), formed by peer consumers (Bolton et al., 2013; Colucci and Cho, 2014). Moreover, they may usually be more impacted by their relationship with the blogger (Hahn and Lee, 2014) since this generation tends to consider them as friends (Pate and Adams, 2013) because they think that everybody, even real people like themselves, can become fashion leaders (Palfrey and Gasser, 2013).

Hence, it is not possible to study Millennials’ relationship with blogs without understanding why they decide to use them. Three most usually identified motivations have
arisen from the literature in relation to the uses and gratifications approach, which considers that people consume media, in this case, blogs, to fill a variety of needs (Kaye, 2005). First, the main motive is information seeking (Cheong and Morrison, 2008; Harridge-March et al., 2010; Kulmala et al., 2013; McQuarrie et al., 2013). When consumers access fashion blogs they normally do it trying to find reliable information about products and brands from a credible source (Magno, 2017). They seek advice, verification, inspiration and fashion guidance they cannot get from other sources (Cheng and Fang, 2015; McQuarrie et al., 2013). The second main motivation is entertainment seeking (Courtois et al., 2009; Harridge-March et al., 2010; Huang et al., 2008), because when they visit a blog sometimes they just do it in terms of the experience itself (Harridge-March et al., 2010), looking for fun, amusement and enjoyment (Colucci and Cho, 2014; Magno, 2017). And finally, the third outstanding motive is efficiency seeking (Cheong and Morrison, 2008; Harridge-March et al., 2010; Johnson et al., 2008; Kaye, 2005), since searching on fashion blogs they try to avoid the risk implied in their purchases (Colucci and Cho, 2014; O’Reilly and Marx, 2011).

Furthermore, additional motivations can complement these main ones. And among them, there is one of special relevance: visiting blogs as a result of a social function (Courtois et al., 2009; Kulmala et al., 2013). People intend to fulfil their need of social interaction and companionship through the affective exchange established within the blog community between people of similar characteristics (Huang et al., 2008; Kaye, 2005). 2.2 Fashion blogs credibility and its influence on purchase intention

Nowadays, several authors agree that blogs are crucial in the decision-making processes of consumers (Cosenza et al., 2014; Liljander et al., 2015; Magno, 2017). The truth is that fashion bloggers’ recommendations can modify consumers’ attitudes towards brands, influencing how consumers perceive them and therefore, their brand choices (Lee and Watkins, 2016). Besides, when a fashion blogger uses and recommends certain brand, the use of this brand by the follower can result in an emotional connection with the blogger and, therefore, with the brand. Getting that is making grow a brand community by emotional branding, which requires configuring a community sense through interpersonal links in which the brand is on the base (Fernández-Gómez and Gordillo-Rodríguez, 2015, p. 145). The impact of these blogger recommendations depends on how consumers perceive its credibility (Johnson et al., 2008; Schweiger, 2000), defined as “the reliability on the information showed in the blog” (Saxena, 2011, p. 103). Consumers normally consider these recommendations to be more credible since bloggers have always been perceived as an independent source (Johnson and Kaye, 2004).

It seems to be a general agreement about the positive impact of the credibility on consumers’ purchase intention and attitudes (Liljander et al., 2015; Mir and Rehman, 2013; Saxena, 2011), according to the theory of reasoned action (Ajzen and Fishbein, 1975) and the theory of planned behaviour (Ajzen, 1991). Nevertheless, there is no consensus about how consumers assess this credibility (O’Reilly and Marx, 2011), and in this context, authors like Cosenza et al. (2014), Filieri (2016) and Huang (2015) posited that it is based on three dimensions.

The first one is source credibility and it is the most agreed dimension in relation to the impact on consumers’ decisions (Boyer et al., 2015; Chu and Kamal, 2008; O’Reilly and Marx, 2011). As Esmaeilpour and Aram (2016) affirmed, “if consumer realizes that the source of viral message sent for him is credible, he finds a positive attitude to brand or product” (p. 479). In a fashion blog, this credibility is developed through a connection on an emotional level that creates the illusion of an interpersonal relationship between blogger and follower (Allen, 2009; Ballantine and Yeung, 2015; Hahn and Lee, 2014; Huang, 2015; Lee and Watkins, 2016; Mortara and Roberti, 2017). In this way, bloggers usually disclose aspects of their personal and daily life (Huang, 2015; Mortara and Roberti, 2017), trying to reinforce the homophile perception in their readers (Ballantine and Yeung, 2015; Lee and Watkins, 2016).
The second dimension is message credibility, mainly based on its valence and quality (Cosenza et al., 2014; Ballantine and Yeung, 2015; Huang, 2015), since strong arguments appear to be more influential (Chu and Kamal, 2008). In Appelman and Sundar’s (2016) study, we can find a basic and accurate definition of message credibility, being “an individual’s judgment of the veracity of the content of communication” (p. 63). According to them, message credibility can be measured by asking participants to rate how well the adjectives “accurate”, “authentic” and “believable” describe content (Appelman and Sundar, 2016). Nevertheless, in a practical way related to blogs, it is usually measured by the number of visits or likes (Huang, 2015; Mir and Rehman, 2013), because according to the theory of social impact (Latane, 1981), blogs become more credible when they gain popularity and several users share the same opinions about them through their comments or likes (Mir and Rehman, 2013).

Finally, the third dimension is site credibility and it relies on the characteristics of the platform where the blogger shares the content (Cosenza et al., 2014), either the blog, Instagram or YouTube, for example.

2.3 Covert and overt marketing in fashion blogs

One of the main features of fashion bloggers is brand advocacy: an active engagement in which the person expends more effort in promoting the brand (Keller, 2001). Fashion bloggers usually get involved with certain brands that, consequently, are perceived by the blogger’s followers as good and recommendable. “Celebrity endorsement may generate and retain attention, increase product recall rates in overly cluttered markets, and can be a powerful predictor of an intention-to-purchase products or services” (Duthie et al., 2017). In that way, one of the best things that a brand can experiment is receiving personal support by a well-known fashion blogger, whose followers are the same as the brand’s target. However, if this does not happen, a brand can always pay to a blogger so that she or he lauds it. Thus, it is important to make a distinction between organic and amplified eWOM, due to the fact that they have different impacts on credibility.

The first one refers to the genuine eWOM where the blogger expresses his/her opinion without any economic support (Kulmala et al., 2013; Liljander et al., 2015), while amplified eWOM occurs when the blogger is encouraged to talk about a product or a brand through a monetary or product compensation (Hwang and Jeong, 2016; Kulmala et al., 2013). At the same time, this second type of eWOM is divided into two different categories: overt marketing when consumers are aware of the sponsorship (Liljander et al., 2015), and covert marketing when this incentive is not revealed (Boyer et al., 2015; Liljander et al., 2015).

In this context, there is a lack of consensus about how these marketing tactics affect bloggers’ credibility. Some authors such as Halvorsen et al. (2013) and Magnini (2011) argued that covert marketing reduces credibility, and therefore positive brand attitude and purchase intention, while others like Collander and Erlandsson (2015) suggested that although it decreases credibility, it does not have a direct impact on brand attitude and purchase intention, since despite deception, consumers still trust the sincerity of the blogger. In the same way, Boyer et al. (2015) suggested that covert marketing is more effective when it is used by a high credible source and when there is a high level of para-social interaction (PSI).

In relation to overt marketing, there are also opposing arguments. Authors like Campbell et al. (2013) and Hwang and Jeong (2016) argued that overt marketing has a negative impact on credibility and behavioural intentions, while others like Ballantine and Yeung (2015) and Collander and Erlandsson (2015) indicated that even though it can decrease PSI, and thus credibility, brand attitudes and purchase intention are not affected. In addition, Halvorsen et al. (2013) defended that as long as the sponsorship is disclosed, consumers accept it and it will not have any negative effect. But this disclosure can be also done in a way that, according to Hwang and Jeong (2016), mitigates the negative impact on credibility: including...
“all opinions are my own, although this is a sponsored post”. In this way, followers are more likely to trust in the source.

Besides all the above, Liljander et al. (2015) found that amplified eWOM does not have any negative impact on the youngest consumers, regardless of whether the sponsorship is disclosed or not, because they are social-media savvy consumers and their persuasion knowledge (Friestad and Wright, 1994) is more easily activated. Actually, they assume that their favourite bloggers have to be sponsored, and they are perfectly able to identify them.

3. Methodology

In order to carry out this study, a mono method consisting relying on quantitative research was followed. Regarding the purpose of the research, this study is a “descripto-explanatory” one (Saunders et al., 2012, p. 140), and employed a survey as research strategy. More particularly, a structured self-administered questionnaire data collection technique was used, addressed to Spanish consumers between 18 and 36 years old who fitted the sample criteria.

For the practicality of this study, the chosen sampling method was the non-probability one, combining self-selecting and snowball sample. The questionnaire was published on Facebook, which is a voluntary selection method where individuals can show their desire to take part in the study (Saunders et al., 2012), and it was also shared through WhatsApp, both personal authors’ sites where contacts were asked to complete the questionnaire and share it with their own contacts. This online administration of the questionnaire was considered suitable in this case since the target was Generation Y members, recognised as digital natives (Magno, 2017). Besides, using an online questionnaire promotes its sharing in social networks and thus its possibility of reaching a wider population.

Regarding the items from the survey, that were selected in order to adequately cover the research questions, the majority were closed. A combination between list, category and Likert-style rating scale items in the form of a matrix can be found, where the last design is the predominant[4]. The questionnaire starts with a filter question that identifies the respondents who self-declared followers of fashion blogs and the ones that do not. Depending on the answer given, the survey items are funnelled and two different routes have been designed to include different questions. Besides, at the end of the questionnaire two posts emulated covert and overt marketing.

Following the launch of the survey, 208 responses were collected over the period of one week. Once gathered, the data were exported to IBM SPSS Statistics software package (version 22) where different types of analyses were combined. Descriptive analyses, such as frequencies, means and other measures of correlation, were used to describe the demographic profile of the sample and its main characteristics in relation to the different parts of the research. Hypothesis testing analyses, such as one-sample t-tests and paired-sample t-tests, were used to contrast the results between the different groups of participants. Other types of analyses were also included, like principal components analysis (PCA), to identify the main groups of different people that exist regarding their motivations to follow fashion bloggers and their credibility assessment, or K-means cluster, used to know the profile of the people gathered in those groups identified with the PCA.

The main limitations of the study are a result of the implemented strategy, the survey. Even though it allows the collection of a large amount of data from a sizeable population, the generalisability of the findings can be questioned. Thus, the sample is too small compared with the large Spanish Millennials’ population. Furthermore, because the study is only focussed on Spain, it is not possible to determine whether it could be applicable to other cultures. Finally, because as a result of the selected type of non-probabilistic sampling there is a lack of external validity (Bryman, 2012). Nevertheless, despite these limitations, findings have been relevant enough to bring further discussions.
4. Findings and discussion

Within the 208 responses collected, 79.8 per cent were female (n = 166), while 20.2 per cent were male (n = 42), which shows a higher female participation, since generally they are keener on fashion and blogs. In relation to the age, the major age group was 18-23 (n = 116, 55.8 per cent), followed by 24-29 (n = 56, 26.9 per cent) and 30-36 (n = 36, 17.3 per cent), thus, there is an unbalanced distribution, probably as a result of a major exposition to social media of the younger age groups regarding whether they were fashion blogs’ habitual followers, 55.8 per cent (n = 116) were followers and 44.2 per cent (n = 92) were not, showing a significant difference between males and females (p-value = 0.000 < 0.05). In this way, only 6 of the 42 males reached were habitual followers.

4.1 Motivations to follow fashion blogs

Hence, a frequency analysis was carried out in order to fulfil Objective 1 and thus, identify the most important reasons that motivate Millennials consumers to be fashion blog followers. In Table I, it can be seen that the most influential variables are related to the three most important motivations: entertainment, information and efficiency seeking, while the less influential are related to the social function.

In order to get a deeper understanding of how these variables motivate consumers, a PCA was performed. With this analysis, through the total variance explained in Table II, it can be seen that four factors explain a 66.08 per cent of variance, gathering all the variables.

<table>
<thead>
<tr>
<th>n</th>
<th>Mean</th>
<th>SD</th>
</tr>
</thead>
<tbody>
<tr>
<td>It entertains me</td>
<td>208</td>
<td>2.86</td>
</tr>
<tr>
<td>To get to know new brands</td>
<td>208</td>
<td>2.64</td>
</tr>
<tr>
<td>To get the information I am looking for</td>
<td>208</td>
<td>2.69</td>
</tr>
<tr>
<td>To access information quicker than with other media</td>
<td>208</td>
<td>2.58</td>
</tr>
<tr>
<td>To get information I cannot get from traditional sources</td>
<td>208</td>
<td>2.50</td>
</tr>
<tr>
<td>It helps me with my online purchases</td>
<td>208</td>
<td>2.52</td>
</tr>
<tr>
<td>It passes the time away</td>
<td>208</td>
<td>2.52</td>
</tr>
<tr>
<td>To keep up with the latest releases</td>
<td>208</td>
<td>2.51</td>
</tr>
<tr>
<td>To keep up with the main fashion issues</td>
<td>208</td>
<td>2.50</td>
</tr>
<tr>
<td>To learn about fashion</td>
<td>208</td>
<td>2.41</td>
</tr>
<tr>
<td>To save money in my purchases</td>
<td>208</td>
<td>2.40</td>
</tr>
<tr>
<td>To save time in my purchases</td>
<td>208</td>
<td>2.38</td>
</tr>
<tr>
<td>It helps me to escape from everyday life</td>
<td>208</td>
<td>2.38</td>
</tr>
<tr>
<td>It helps me to relax</td>
<td>208</td>
<td>2.29</td>
</tr>
<tr>
<td>To get different opinions</td>
<td>208</td>
<td>2.25</td>
</tr>
<tr>
<td>To get a better insight into the main fashion events</td>
<td>208</td>
<td>1.95</td>
</tr>
<tr>
<td>So I can talk with other people about what’s on</td>
<td>208</td>
<td>1.88</td>
</tr>
<tr>
<td>It is in vogue</td>
<td>208</td>
<td>1.57</td>
</tr>
<tr>
<td>I identify with its creator</td>
<td>208</td>
<td>1.55</td>
</tr>
<tr>
<td>Those around me follow it</td>
<td>208</td>
<td>1.52</td>
</tr>
<tr>
<td>It helps me to meet people with same interests</td>
<td>208</td>
<td>1.45</td>
</tr>
</tbody>
</table>

Table I. Means of the influence of each of the variables when deciding to follow a fashion blog

<table>
<thead>
<tr>
<th>Component</th>
<th>Total</th>
<th>Initial eigenvalues</th>
<th>Rotation sums of squared loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% of variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>2</td>
<td>2.412</td>
<td>11.488</td>
<td>50.917</td>
</tr>
<tr>
<td>3</td>
<td>1.664</td>
<td>7.925</td>
<td>58.841</td>
</tr>
<tr>
<td>4</td>
<td>1.520</td>
<td>7.239</td>
<td>66.080</td>
</tr>
</tbody>
</table>

Table II. Motivation to follow a fashion blog; total variance explained
Then, through the rotated component matrix (Table III), the variables were allocated to one of the factors, seeing that each of the four factors represents one of the main motivations identified within the literature review. The first one is related to entertainment seeking, the second one to information seeking, the third one to efficiency seeking and finally, the fourth one, to the social function of blogs, confirming that all are statistically significant as motivations to follow fashion blogs ($p$-value $= 0.000 < 0.05$).

Using the factors obtained with the PCA, a K-Means cluster analysis was implemented aiming to classify participants in four different groups regarding the factors that most influence them when deciding to become fashion blog followers. In this sense, all the clusters were statistically significant ($p$-values $= 0.000 < 0.05$), which indicates that the differences between these groups are significant, with the first being the largest one ($n = 87$). From the final clusters centres, the profile of the groups is shown in Figures 1-4.

<table>
<thead>
<tr>
<th>Table III.</th>
<th>Motivations to follow a fashion blog: rotated component matrix</th>
</tr>
</thead>
<tbody>
<tr>
<td>To get the information I am looking for</td>
<td>0.028 0.407 0.525 0.045</td>
</tr>
<tr>
<td>To learn about fashion</td>
<td>0.213 0.725 0.197 0.182</td>
</tr>
<tr>
<td>To keep up with the main fashion issues</td>
<td>0.286 0.804 0.064 0.181</td>
</tr>
<tr>
<td>To keep up with the latest releases</td>
<td>0.145 0.809 0.038 0.257</td>
</tr>
<tr>
<td>To get to know new brands</td>
<td>0.216 0.693 0.185 0.140</td>
</tr>
<tr>
<td>To get information I cannot get from traditional sources</td>
<td>0.306 0.208 0.599 $-0.099$</td>
</tr>
<tr>
<td>To get a better insight into the main fashion events</td>
<td>0.468 0.492 0.011 0.263</td>
</tr>
<tr>
<td>To get different opinions</td>
<td>0.442 0.417 0.399 0.181</td>
</tr>
<tr>
<td>To access information quicker than with other media</td>
<td>0.291 0.240 0.688 0.082</td>
</tr>
<tr>
<td>To save time in my purchases</td>
<td>0.063 $-0.008$ 0.856 0.153</td>
</tr>
<tr>
<td>To save money in my purchases</td>
<td>$-0.161$ $-0.090$ 0.812 0.153</td>
</tr>
<tr>
<td>It helps me with my online purchases</td>
<td>0.243 0.139 0.689 0.256</td>
</tr>
<tr>
<td>It entertains me</td>
<td>0.792 0.314 0.151 0.029</td>
</tr>
<tr>
<td>It helps me to relax</td>
<td>0.832 0.157 0.145 0.226</td>
</tr>
<tr>
<td>It helps me to escape from everyday life</td>
<td>0.848 0.156 0.125 0.222</td>
</tr>
<tr>
<td>It passes the time away</td>
<td>0.786 0.283 0.099 0.223</td>
</tr>
<tr>
<td>So I can talk with other people about what’s on</td>
<td>0.542 0.086 0.054 0.806</td>
</tr>
<tr>
<td>It helps me to meet people with same interests</td>
<td>0.226 0.119 0.185 0.706</td>
</tr>
<tr>
<td>It helps me to identify with its creator</td>
<td>0.368 0.260 0.141 0.394</td>
</tr>
<tr>
<td>It helps me to escape from everyday life</td>
<td>0.182 0.119 0.185 0.706</td>
</tr>
<tr>
<td>It helps me to meet people with same interests</td>
<td>0.226 0.119 0.185 0.706</td>
</tr>
<tr>
<td>It helps me to identify with its creator</td>
<td>0.368 0.260 0.141 0.394</td>
</tr>
<tr>
<td>It helps me to escape from everyday life</td>
<td>0.848 0.156 0.125 0.222</td>
</tr>
<tr>
<td>It passes the time away</td>
<td>0.786 0.283 0.099 0.223</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figure 1.</th>
<th>Motivations to follow a fashion blog: factor 1 (entertainment seeking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>People less influenced by entertainment seeking</td>
<td>People more influenced by entertainment seeking</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Figure 2.</th>
<th>Motivations to follow a fashion blog: factor 2 (information seeking)</th>
</tr>
</thead>
<tbody>
<tr>
<td>People less influenced by information seeking</td>
<td>People more influenced by information seeking</td>
</tr>
</tbody>
</table>
As can be seen in the above representation, there are four different groups of people:

1. The first cluster, the largest one, gathers the participants whose decision to follow blogs is the most influenced by entertainment and information seeking, and moderately by efficiency seeking and the social function.

2. The second cluster gathers the participants most influenced by efficiency seeking, moderately by entertainment, and who are not influenced by the social function nor by information seeking.

3. The third one gathers Millennials who are motivated by information and efficiency seeking, moderately by the social function, and not influenced by entertainment.

4. Finally, the fourth cluster is composed by the ones who are the most influenced by the social function, moderately by entertainment and information seeking, and not influenced by efficiency seeking.

These four groups of people are a way to classify the population in terms of those variables, but, at the same time, this understanding of how they are and behave could be a really valuable information source for bloggers and brands, allowing them to make a better choice of products, topics, brands, etc., to feature in their blogs trying to engage their target audience.

4.2 Fashion bloggers

Some items were included in order to understand how Millennials assess fashion bloggers’ credibility. First, a frequency analysis was conducted, showing that all the proposed variables are somehow important for participants as a measure of bloggers’ credibility since all of them have a mean score equal or higher than 3, as can be seen in Table IV.

4.2.1 Main factors credibility depends on. Concluding that all the items have some influence, the aim was to group them into several factors, ascertaining if they were similar to the ones identified within the literature. For that purpose, a PCA was conducted, where, through the total variance explained Table V, it can be seen that four factors gather all the variables and explain 65.67 per cent of variance.

Then, through the rotated component matrix (Table VI), where the variables are allocated to one of the factors, it can be appreciated how the results are in line with the factors identified within the literature. They match with the main dimensions, since the first three factors represent source credibility through trustworthiness, PSI and expertise, while the fourth factor represents message credibility, confirming that all are statistically significant as items that impact credibility (p-value = 0.000 < 0.05).
It is continually updated 116 4.06
He/She makes good suggestions 116 4.00
His/Her opinions are honest 116 3.98
He/She offers me useful information 116 3.93
The posts have a unique style 116 3.86
His/Her content inspires me 116 3.84
He/She has a broad knowledge 116 3.66
His/Her opinions are objective 116 3.66
He/She really knows the fashion industry 116 3.59
Many people like it 116 3.47
He/She has many followers 116 3.45
He/She has extensive experience 116 3.43
I consider him/her to be an expert 116 3.25
Comments posted on this blog make it more interesting 116 3.00

Table IV.
Means of the influence of each variable when assessing credibility

<table>
<thead>
<tr>
<th>Component</th>
<th>Total</th>
<th>Initial eigenvalues</th>
<th>Rotated sums of squared loadings</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>% of variance</td>
<td>Cumulative %</td>
</tr>
<tr>
<td>1</td>
<td>10.171</td>
<td>4.378</td>
<td>42.378</td>
</tr>
<tr>
<td>3</td>
<td>1.585</td>
<td>6.603</td>
<td>60.060</td>
</tr>
<tr>
<td>4</td>
<td>1.346</td>
<td>5.610</td>
<td>65.671</td>
</tr>
</tbody>
</table>

Table V.
Fashion bloggers’ credibility: total variance explained

<table>
<thead>
<tr>
<th>Component</th>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
</tr>
</thead>
<tbody>
<tr>
<td>He/She really knows the fashion industry</td>
<td>0.328</td>
<td>0.117</td>
<td>0.744</td>
<td>0.205</td>
</tr>
<tr>
<td>He/She has a broad knowledge</td>
<td>0.317</td>
<td>0.128</td>
<td>0.753</td>
<td>0.168</td>
</tr>
<tr>
<td>He/She has extensive experience</td>
<td>0.260</td>
<td>0.124</td>
<td>0.824</td>
<td>0.082</td>
</tr>
<tr>
<td>I consider him/her to be an expert</td>
<td>0.332</td>
<td>0.207</td>
<td>0.766</td>
<td>0.133</td>
</tr>
<tr>
<td>He/She makes good suggestions</td>
<td>0.753</td>
<td>0.160</td>
<td>0.384</td>
<td>0.106</td>
</tr>
<tr>
<td>His/Her opinions are honest</td>
<td>0.704</td>
<td>0.277</td>
<td>0.339</td>
<td>0.078</td>
</tr>
<tr>
<td>His/Her opinions are objective</td>
<td>0.679</td>
<td>0.146</td>
<td>0.235</td>
<td>0.115</td>
</tr>
<tr>
<td>His/Her content inspires me</td>
<td>0.713</td>
<td>0.211</td>
<td>0.300</td>
<td>0.199</td>
</tr>
<tr>
<td>He/She offers me useful information</td>
<td>0.758</td>
<td>0.244</td>
<td>0.313</td>
<td>0.146</td>
</tr>
<tr>
<td>Comments posted on this blog make it more interesting</td>
<td>0.128</td>
<td>0.249</td>
<td>0.403</td>
<td>0.474</td>
</tr>
<tr>
<td>It is continually updated</td>
<td>0.650</td>
<td>−0.079</td>
<td>0.233</td>
<td>0.385</td>
</tr>
<tr>
<td>The posts have a unique style</td>
<td>0.412</td>
<td>0.154</td>
<td>0.373</td>
<td>0.478</td>
</tr>
<tr>
<td>Many people like it</td>
<td>0.221</td>
<td>0.136</td>
<td>0.105</td>
<td>0.882</td>
</tr>
<tr>
<td>He/She has many followers</td>
<td>0.112</td>
<td>0.039</td>
<td>0.106</td>
<td>0.899</td>
</tr>
<tr>
<td>I identify myself with him/her</td>
<td>0.344</td>
<td>0.354</td>
<td>0.162</td>
<td>0.336</td>
</tr>
<tr>
<td>I see him/her as a natural person, like a friend</td>
<td>0.609</td>
<td>0.405</td>
<td>0.067</td>
<td>0.154</td>
</tr>
<tr>
<td>I never miss any of his/her posts</td>
<td>0.463</td>
<td>0.619</td>
<td>0.126</td>
<td>0.127</td>
</tr>
<tr>
<td>I comment on his/her posts</td>
<td>−0.153</td>
<td>0.683</td>
<td>0.295</td>
<td>0.084</td>
</tr>
<tr>
<td>I participate in his/her raffles</td>
<td>0.363</td>
<td>0.595</td>
<td>−0.107</td>
<td>−0.015</td>
</tr>
<tr>
<td>I never miss any content related to that blogger</td>
<td>0.305</td>
<td>0.710</td>
<td>0.111</td>
<td>0.124</td>
</tr>
<tr>
<td>I feel as if I am part of his/her community</td>
<td>0.160</td>
<td>0.839</td>
<td>0.085</td>
<td>0.160</td>
</tr>
<tr>
<td>I would like to meet him/her in person</td>
<td>0.091</td>
<td>0.797</td>
<td>0.174</td>
<td>0.100</td>
</tr>
<tr>
<td>His/Her opinions help me to make up my own mind</td>
<td>0.435</td>
<td>0.512</td>
<td>0.272</td>
<td>0.249</td>
</tr>
<tr>
<td>I feel as if I knew him/her for my entire life</td>
<td>0.160</td>
<td>0.806</td>
<td>0.116</td>
<td>0.148</td>
</tr>
</tbody>
</table>
Using the four factors obtained with the PCA, a K-Means cluster analysis was implemented in order to classify participants in four different clusters regarding the factors that most influence their credibility assessment. In this sense, all the clusters were statistically significant (p-value < 0.05), which means that the differences between these groups are significant, being the second one the largest group (n = 59). Hence, from the final clusters centres, the profile of the groups is shown in Figures 5-8.

As can be observed, there are four different groups of people:

(1) The first group gathers the ones whose credibility assessment is the most influenced by trustworthiness, moderately by PSI and message credibility, and it is not influenced by the bloggers’ expertise.

(2) The second cluster, the one represents the largest amount of people, groups the ones moderately influenced by the four factors.

(3) The third one gathers the Millennials most influenced by PSI and expertise, and moderately influenced by trustworthiness and message credibility.

(4) Finally, the ones that are not influenced by either trustworthiness or expertise, and slightly influenced by PSI and message credibility, compose the fourth cluster.

4.2.2 Platform characteristics and site credibility. Another dimension used by consumers to assess bloggers’ credibility identified within the literature review is site credibility. Since according to Cosenza et al. (2014) it relies on the characteristics of the platform, a correspondence analysis was conducted aiming to identify if there is a relationship between each of the platforms and the features most commonly recognised by consumers in each platform.
one: $\chi^2 = 22.379/p\text{-value} = 0.071 > 0.05$. As can be seen, the null hypothesis cannot be rejected and thus, it cannot be said that this relationship exists.

Therefore, only a descriptive analysis of frequencies was conducted to see which features are the most commonly recognised in each platform (Table VII).

With these results, a paired-samples $t$-test was conducted to examine whether credibility is equally assessed for all the platforms. In this sense, significant differences were found between the blog and Instagram ($p\text{-value} = 0.17 < 0.05$) and between Instagram and YouTube ($p\text{-value} = 0.026 < 0.05$), since in both cases the null hypothesis is rejected, concluding that credibility has a significant higher mean in Instagram.

4.2.3 Purchase intention and brand attitude. As commented in the literature section, blogs are recognised as one of the most effective platforms in influencing consumers' purchase intentions and attitudes towards products and brands. In this way, the survey included an item in relation to these aspects in order to determine if participants show a positive attitude and purchase intention towards the brands and products displayed by the fashion bloggers they usually follow. Therefore, a frequency analysis was conducted to observe the mean obtained by each of the items, and as can be seen in Table VIII both purchase intention and consumers' attitude are high and positive, with means over 3.

Then, in order to address Objective 2 of the research, an ANOVA analysis was conducted to determine if the way people assess the credibility of the blogger has an impact on their purchase intention and attitudes. The results of this analysis confirmed that there is a relationship between the variables, since all the $p$-values are under 0.05, rejecting the null hypothesis of equal means. In this way, people belonging to cluster 4 present significantly lower purchase intention and attitudes. And moreover, participants classified in cluster 2 present a significantly lower purchase intention than clusters 1 and 3. Therefore, this analysis is in line with Johnson et al. (2008) and Schweiger (2000), who defended that the influence that bloggers exert on consumers depends on how credible they are perceived.

<table>
<thead>
<tr>
<th></th>
<th>Blog (Mean)</th>
<th>Instagram (Mean)</th>
<th>YouTube (Mean)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Is easy access one of the characteristics of the platform?</td>
<td>0.56</td>
<td>0.80</td>
<td>0.49</td>
</tr>
<tr>
<td>Is easy navigation one of the characteristics of the platform?</td>
<td>0.36</td>
<td>0.69</td>
<td>0.39</td>
</tr>
<tr>
<td>Is good design one of the characteristics of the platform?</td>
<td>0.57</td>
<td>0.59</td>
<td>0.34</td>
</tr>
<tr>
<td>Is closeness one of the characteristics of the platform?</td>
<td>0.41</td>
<td>0.60</td>
<td>0.47</td>
</tr>
<tr>
<td>Is credibility one of the characteristics of the platform?</td>
<td>0.37</td>
<td>0.52</td>
<td>0.38</td>
</tr>
<tr>
<td>Is this platform useful to get inspiration?</td>
<td>0.42</td>
<td>0.72</td>
<td>0.38</td>
</tr>
<tr>
<td>Is entertainment one of the characteristics of the platform?</td>
<td>0.55</td>
<td>0.80</td>
<td>0.61</td>
</tr>
<tr>
<td>Is instantaneity one of the characteristics of the platform?</td>
<td>0.23</td>
<td>0.66</td>
<td>0.28</td>
</tr>
</tbody>
</table>

Table VII.
Means of the characteristics on each platform

<table>
<thead>
<tr>
<th>Item</th>
<th>n</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>I would like to try the products</td>
<td>116</td>
<td>3.82</td>
</tr>
<tr>
<td>I would like to try the brands</td>
<td>116</td>
<td>3.81</td>
</tr>
<tr>
<td>Think that the products/brands are good quality</td>
<td>116</td>
<td>3.69</td>
</tr>
<tr>
<td>Favourable opinion about the brands</td>
<td>116</td>
<td>3.57</td>
</tr>
<tr>
<td>I consider the products in my future purchases</td>
<td>116</td>
<td>3.49</td>
</tr>
<tr>
<td>Favourable opinion about the products</td>
<td>116</td>
<td>3.46</td>
</tr>
<tr>
<td>I consider the brands in my future purchases</td>
<td>116</td>
<td>3.43</td>
</tr>
</tbody>
</table>

Table VIII.
Means of the items related to purchase intention and consumers’ attitude
Finally, to expand this analysis, more mean comparisons were carried out in order to identify if the degree of PSI established with the bloggers has a significant impact on consumers’ purchase intention. In this respect, every analysis presents a $p$-value < 0.05, rejecting the null hypothesis of equal means, but the one related to the PSI established through comments posting. Therefore, there is a significant relationship between the rest of PSI variables and purchase intention, concretely a positive one, since the stronger the PSI is, the higher purchase intention they show. This confirms what authors like Colliander and Erlandsson (2015), Hahn and Lee (2014) or Lee and Watkins (2016), already said since they considered that PSI strongly influences purchase intention in a positive way.

4.3 Covert and overt marketing

In order to address Objective 3, investigating if covert and overt marketing posts have an impact on consumers’ attitude and purchase intention, two posts that emulated real covert and overt blogger’s posts were shown to participants. Both the blogger and the brand names were false, trying in this way to avoid the impact that using real brands could have on the result, as the answers would be biased as a result of the perception that respondents have about those real brands.

4.3.1 Covert marketing. First, the aim was to determine if the perceived credibility, concretely bloggers’ trustworthiness, is the same than before showing the post, so different analyses were carried out. To begin with, a frequency analysis was implemented to observe the means of the items (Table IX). At first sight, it seems that perceived trustworthiness is lower than before showing this post, since all the means are under 3, so a paired-samples $t$-test was implemented to followers’ responses for the purpose of determining if the differences were significant. In this way, the null hypothesis is rejected for every item ($p$-values = 0.000 < 0.05), confirming the theory of authors like Colliander and Erlandsson (2015), Halvorsen et al. (2013) and Magnini (2011), who defended that employing covert marketing techniques significantly decreases credibility.

After this, several ANOVA analyses were carried out, showing that the perceived degree of trustworthiness depends on the degree of PSI interaction established with the blogger, since for every item but for the comments one, the higher PSI is, the higher the degree of trustworthiness is. It is also revealed that it also depends on how they assess credibility, since people belonging to cluster 4 show a significantly lower degree of trustworthiness than the rest of the people, whereas the ones in cluster 3, the most influenced by PSI, present the highest perceived trustworthiness. This is in line with Boyer et al.’s (2015) argument, which defends that covert marketing is more effective when it is employed by a source with whom consumers have established a strong PSI.

Second, the purpose was to find out the impact on purchase intention and consumers’ attitudes. Thus, as was done for credibility, a frequency analysis was implemented and the means showed that apparently, both had decreased after the presentation of the post, all the items being lower than 3 (Table X). Then a paired-samples $t$-test was applied to followers’

<table>
<thead>
<tr>
<th>Item</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>He/She makes good recommendations</td>
<td>2.78</td>
</tr>
<tr>
<td>His/Her opinions are honest</td>
<td>2.73</td>
</tr>
<tr>
<td>His/Her opinions are unbiased</td>
<td>2.53</td>
</tr>
<tr>
<td>His/Her content inspires me</td>
<td>2.59</td>
</tr>
<tr>
<td>He/She gives me useful information</td>
<td>2.71</td>
</tr>
</tbody>
</table>

Table IX. Means of trustworthiness items after showing the covert marketing post
responses concluding that purchase intention and consumers’ attitudes were significantly lower after viewing the post, and thus, confirming Halvorsen et al.’s (2013) and Magnini’s (2011) reasoning.

As happened with trustworthiness, the ANOVA analyses reveal that purchase intention and consumers’ attitudes in this case depend on how participants assess credibility, showing the same result than for trustworthiness. Therefore, for these behavioural variables, PSI could work as a moderator too, since for most of the items the differences are significant ($p$-values $< 0.05$) between the ones that have established a strong PSI with the blogger, and the ones that have not.

4.3.2 Overt marketing. For the second post, the overt marketing one, the same process was followed, obtaining similar results than for the covert marketing one. In this sense, it was also concluded that trustworthiness had significantly decreased ($p$-values $< 0.05$) after showing the overt marketing post and that it was also influenced by how consumers assess the credibility of the blogger. However, it seems that for overt marketing, PSI does not work as a moderator in the same degree that it does for covert, since in this case less variables were significantly different. In the same way, purchase intention and consumers’ attitudes were significantly lower than before the post was shown ($p$-values $< 0.05$), and it was also related to the credibility assessment of participants, but PSI is not as influential as it was in the covert marketing post, especially for purchase intention. These results support Campbell et al.’s (2013) and Hwang and Jeong’s (2016) statements, which defend that overt marketing negatively affects credibility, and as consequence, consumers’ behavioural intentions.

4.3.3 Comparison between covert and overt marketing impacts. After identifying that both, covert and overt marketing posts, have a negative impact on trustworthiness and behavioural intentions, it is important to determine if that impact is significantly different between them. Therefore, paired-samples $t$-tests were implemented, concluding that there are not significant differences on how covert and overt marketing impact consumers.

In closing the results’ discussion, it is important to highlight that all these results are related to the Spanish context, so it would be appropriate to do a comparison in order to investigate if this practical analysis would show same results in another country.

5. Conclusion and implications
Through different analyses, this study has contributed to a better understanding of fashion bloggers as communication tools for fashion industry, defining their influence in Millennials’ buying behaviour in Spain. According to the proposed objectives, in the first place, it has been concluded that the motives that lead Millennials to follow fashion blogs are in line with the literature review, information, entertainment, efficiency and social relation seeking. However, among them two are particularly influential: information seeking and entertainment seeking. Regarding this, fashion bloggers should focus on giving accurate and new information, as well as including vivid and interesting content, in order to maintain their reputation and catch the attention of their followers.

<table>
<thead>
<tr>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>Favourable opinion about the products</td>
</tr>
<tr>
<td>Favourable opinion about the brands</td>
</tr>
<tr>
<td>Think that the products/brands are of good quality</td>
</tr>
<tr>
<td>I would like to try the products</td>
</tr>
<tr>
<td>I would like to try the brands</td>
</tr>
<tr>
<td>Likely to consider the products in my future purchases</td>
</tr>
<tr>
<td>Likely to consider the brands in my future purchases</td>
</tr>
</tbody>
</table>

Table X. Means of behavioural variables after showing the covert marketing post.
Regarding the second objective, it can be affirmed that bloggers' recommendation are perceived to be honest, showing a high credibility. This credibility depends mainly on the blogger's trustworthiness and expertise, on the degree of PSI established with the blogger and on the message credibility. Besides, it was concluded that credibility assessment has a significant relation to consumers' behaviour. Therefore, bloggers must try to give their followers good and credible information, in order to increase their fashion desire and therefore, positively influence their attitude and purchase intention.

Finally, in relation to the third objective, the analyses concluded that sponsored posts, both covert and overt, have a negative impact on credibility and behavioural intentions, no matter whether this sponsorship is revealed or not. That is linked to Halvorsen et al.'s (2013) and Magnini's (2011) arguments. Hence, these results could lead to assume that the best idea when sponsoring a blog post is to create it trying to resemble as much as possible organic ones, leading to positive credibility and behavioural intentions. Brands must focus on encouraging brand advocacy without a monetary compensation between fashion bloggers, and consequently, as Fernández-Gómez and Gordillo-Rodríguez (2015) proposed, constructing a strong brand community through emotional connections.

As a result, it can be said that fashion blogs can function as a marketing tool to influence consumers' behaviour. However, a series of recommendations can be made for both, fashion bloggers and marketers. First, these bloggers should try to connect with consumers on an emotional level. This way, consumers are more likely to consider them as a reference and therefore both, credibility and behavioural intentions, would be positively influenced. Then, the study has shown that collaborating with bloggers does not necessarily lead to a more favourable brand attitude and purchase intention. Therefore, brands need to select bloggers very carefully, they cannot just choose them because of their large number of followers, but go beyond this and consider also more significant and influential aspects, such as their perceived credibility and degree of PSI established with the target the brand wants to reach. Moreover, they have to select the ones that are somehow involved with the brand, or at least that share its values, in order to seem more credible.

To conclude, we cannot forget that these recommendations derive from an analysis of Spanish fashion bloggers' followers, so they are bound to the cultural component of Spanish Millennials. Hence, this research functions as a sample of Millennials’ buying behaviour in certain territorial context, and it could be compared with another context in future research as cultural influence has been under-researched in this area although it has been shown to be influential in many aspects of fashion (Carey and Cervellon, 2014).

Notes
3. The eWOM (e-word-of-mouth) is defined by Hennig-Thurau et al. (2004) as "any positive or negative statement made by potential, actual or former customers about a product or company, which is available to a multitude of people and institutions via de Internet" (p. 39).

References
Ajzen, I. and Fishbein, M. (1975), Belief, Attitude, Intention and Behaviour: An Introduction to Theory and Research, Addison-Wesley, Reading, MA.


Hwang, Y. and Jeong, S. (2016), “‘This is a sponsored blog post, but all opinions are my own’: the effects of sponsorship disclosure on responses to sponsored blog posts”, *Computers in Human Behavior*, Vol. 62, pp. 528-535, doi: 10.1016/j.chb.2016.04.026.


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Fashion misfit: women’s dissatisfaction and its implications

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Abstract
Purpose – The purpose of this paper is to draw attention to the link between underdeveloped and ill-informed sizing practices, fit dissatisfaction and the creation of textiles waste. The literature review identifies: issues that limit the effective development and application of sizing systems, the link between the complexities of consumer fit expectations, body image and self-esteem and maps the link between fit dissatisfaction and the creation of textiles waste.

Design/methodology/approach – Data analysis draws from a wider study designed to investigate women’s experiences of dress fit and body image. In total, 20 women aged 18-45 years were audio recorded while they tried on a number of mass-produced dresses, and were asked to select one dress, which they could keep.

Findings – All the dresses were selected except one style, which failed to satisfy any of the women’s fit requirements. The findings clearly demonstrate why this dress was considered to be unsatisfactory as well as the subsequent link between poor fit and body dissatisfaction.

Social implications – Findings support the theory that women identify with their clothes’ size and when this link is disrupted it causes discomfort and body dissatisfaction, which, in turn, contributed to rejection of the garment increasing the potential for the creation of waste.

Originality/value – This study is the first to link unsatisfactory fashion sizing practice with the production of textiles waste. The process of capturing women’s interactions with high street fashion dresses whilst trying them on enabled a detailed analysis that contributes new evidence to the debate around sizing practice, poor fit and its impact on body image and self-esteem.

Keywords Fashion, Consumer satisfaction, Body image, Clothing fit, Sizing systems, Textiles waste

Paper type Research paper

Introduction
The historical development of UK women’s sizing systems
Sizing systems for mass-produced clothing should meet the size needs of a whole and varied population. However, systems both in the UK and globally have been the focus of much criticism both from academic authors (Beazley, 1998; Winks, 1997; Ashdown, 1998; Lee et al., 2007; Gill, 2016) and the popular press (Shabi, 2004; Fox, 2007; Smithers, 2011; Street Porter, 2016). This study provides further evidence to show that current methods of sizing are unsatisfactory and highlights the resulting implications on body image and the creation of textiles waste.

In the UK, clothing was constructed on an individual basis well into the twentieth century (Kunick, 1984; Aldrich, 2007). This individual approach enabled the tailor or
dressmaker to adjust garments for each specific wearer. Manufacturing skills and the application of body measurement were developed within this context. The introduction of mass production, initially in America and later in Europe, eliminated the opportunity to fit on the individual. It is this change that initiated the need to solve a far more complex problem, involving statistical analysis of data sets and the development of new sizing systems. New skills and data sets were therefore in demand in the clothing industry.

To gather anthropometric data for mass-produced clothing, scientific sizing surveys were initiated. The first, in America during the 1940s, collected data from approximately 1,500 female agricultural workers (O’Brian and Shelton, 1941). This became a model for future surveys including one in the UK, in 1951 (Kemsley, 1957). The UK survey report recommended that at least three female body shapes should be considered in subsequent sizing systems (Kunick, 1984; Winks, 1997). However, British retailers’ based their systems on only one body shape and up until fairly recently this practice remained unchanged (Bougourd, 2007; Gribbin, 2014). Sizing systems are influenced by two conflicting needs: to provide the most appropriately fitting garments for a population, and to reduce costs for the manufacturer (Ashdown, 1998, 2014). Basing systems on one body shape reduce the number of sizes, which can reduce costs for the manufacturer. Studies conducted in a variety of countries have demonstrated the limitations of this narrow approach when applied to large populations (Tamburrino, 1992; Winks, 1997; Ashdown, 1998; Beazley, 1996; Lee et al., 2007; Gill, 2009). There is also evidence to show that sizing and grading practices predate these large scale surveys, raising questions regarding their grounding in population differences (Schofield and LaBat, 2005).

**Literature review**

**Current problematic sizing practice**

A number of issues can be identified that result in problematic sizing practice including: subjective fit evaluation; the failure to recognise variances in body shape; changes in purchasing behaviour as a result of online consumption; and the preference for idealised body shapes within the fashion industry.

Many large scale sizing surveys, using 3D body scanning technologies, have been conducted globally (Yu, 2004; King, 2014). However, in order to apply the survey findings effectively further research is required. Recent studies demonstrate that outdated and inappropriate practice has prevailed in many clothing companies (Ashdown and O’Connell, 2006; Brownbridge, 2012; Gribbin, 2014). To establish fit each individual prototype garment is fitted on a fit model, whose body conforms to a company’s sample size (Pisut and Connell, 2007; Wren and Gill, 2010; Ashdown, 2014). This method replicates historical practice used when garments were constructed for individuals. Bye et al. (2008) evaluated industry grading practice and found that it did not provide good fit. They condemned commonly used sizing practice comprising of: fitting prototypes on a model who complies to a small sample size, grading this prototype to develop a range of sizes, and failing to conduct any further fit tests. It was suggested that fit tests should be conducted throughout the size range. Although it may be logical to test the fit of prototypes, it is difficult to see how creating good fit on one person can achieve good fit for a population of people. In fact, a previous study that compared 3D body data from 637 women and a retailer’s fit model demonstrated that this method is not appropriate. Only nine of the women were found to conform to the bust waist and hip measurements of the fit model. Further, visual analysis of the 3D images showed postural, height and proportional variance (Brownbridge et al., 2014). No matter how rigorous the fit testing process is, once the item of clothing is worn by anyone other than the fit model, the fit relationship changes and is likely to be compromised. In addition, this method of achieving fit is said to rely on subjective personal judgement (Pan et al., 2004;
Ashdown and O’Connell, 2006) and create bottlenecks and expensive iterations within the product development cycle (Brownbridge, 2012).

The failure to recognise more than one body shape within a population has been discussed in previous studies (Gill and Brownbridge, 2015; Gribbin, 2014). Although there may be production savings when producing a reduced number of sizes, there must also be a cost related to the alienation of consumers who are dissatisfied with fit and the inevitable returns of clothes to retailers. This is of particular concern because the online sector eliminates the ability to try garments on before purchase and is becoming increasingly popular. It is perhaps understandable therefore that 54 per cent of young women aged 16-24 have said that they have returned clothes bought online and nearly half of these blame poor fit for their dissatisfaction (Goody, 2016).

An issue that is more reflective of the aspirational nature of fashion is the use of idealised bodies during design and development processes. This has led to a focus on slim female bodies. Designs are conceptualised on exaggeratedly tall slim templates (Brownbridge et al., 2014). Garments tend to be produced for a slim female body (in the UK a size 10 or 12) (Jenkyn Jones, 2005; Bougourd, 2007), yet according to the findings from SizeUK (Taylor, 2004), the average woman is larger than a size 10 or 12. If designers and product developers are predominantly focussing on slim female bodies they are unlikely to be addressing the specific preferences of the increasing number of larger women. Studies show that women tend to have very specific preferences according to their body size and shape (Apeagyei, 2008; Grogan et al., 2013). This tendency to only use idealised body shapes must surely have a negative impact on the ability to satisfy the preferences of a varied population.

Non-standard and inconsistent sizing provision

Any attempts to introduce sizing standardisation at a national level, let alone globally have failed (Winks, 1997). It is left up to each individual retailer to develop their own system of sizing. This current lack of standardisation has been claimed to create more choice for the consumer (Workman, 1991) and this opinion is often cited in popular discussion of sizing (Hardy, 2011; Shabi, 2004). It is hard to see how such a haphazard approach presents a solution. In fact, it causes much confusion as sizes between retailers vary so much. Whilst there is evident variation in UK sizing (Gill, 2015), this does not equate to similar variation in proportional (shape) offerings in existing sizing (Gill, 2015).

Size coding used to communicate the size of the garment to the consumer presents further opportunities for inconsistency and non-standardisation. Both the methods of communicating size and the amount of increment between sizes vary (Winks, 1997). Kinley (2003) recognised the frustration that sizing inconsistency causes women and investigated the extent to which sizes vary on the high street. An evaluation was conducted on trousers. In total, 1,011 pairs were measured at the waist, inseam and crotch. Measuring garments bought from retailers to establish variance is not an exact science, as it is difficult to distinguish between dimensional variance caused by styling choices from those caused by size chart variance. The study did, however, indicate a large degree of dimensional inconsistency across a range of providers within single sizing categories. Kinley (2003) recommended a de-emphasise of the number on the size label in order to focus on achieving comfort through appropriate fit.

A more recent study collected all the published size chart data from UK retailers and presented it in a visual format to guide consumers (Powell-Smith, 2012). This study highlights sizing inconsistency in the UK and the generous press attention received by this work indicates a high level of public interest. Vanity sizing, a strategy used by retailers to flatter women into thinking they are a smaller size than they expect to be (Shabi, 2004) has also been criticised for creating further inconsistency between retailers (Labat, 2007; Kennedy, 2008). Size coding systems are not being used as a consistent means to
communicate garment size, but as a marketing tool. Further complicated by the global nature of the industry, often resulting in the inclusion of multiple size codes from various global regions on one label (British Standard Institute, 2002).

Garment fit and the female body
If sizing systems consistently fail to meet the fit needs of a broad range of consumers, the subsequent implications are more than just economic losses for the retailer. The way a garment fits a person has been found to signal a range of subtle messages to the wearer about their body. Women can monitor changes of body size by the fit of their clothes. They identify with their clothes' size and blame their own bodies if clothes do not fit. This can impact on body image, self-esteem and identity (LaBat and DeLong, 1990; Grogan et al., 2013; Grogan, 2016).

This present study presents a very focussed analysis of apparel-related data from a larger interdisciplinary study, which interviewed and observed women when they were trying dresses on. The initial output focussed on the women's comments in relation to dress fit and body image (reference blinded for peer review). The thematic analysis found a consistent preference for the slim hourglass body shape. These aspirational preferences influenced the choices women made; they tended to seek garments that balanced the hip and bust dimensions, created a well-defined waist, and avoided styles that made them feel larger. Participants wanted the dresses to conceal body regions that they thought were unattractive or socially inappropriate and emphasise regions that they thought enhanced their attractiveness. The desire to conform to the slim hourglass body relates to the idealised fashion body used by the industry for shop mannequins, catwalk models and models used to sell clothing online.

de Klerk and Tselepis (2007) explored the relationship between fit evaluation, fit expectation and fit satisfaction for adolescent female consumers. They found that consumer fit preferences were influenced by a range of characteristics, such as comfort, the ability to flatter the body, suitability for the occasion and adherence to current fashion. Apeagyei (2008) found that 77 per cent of survey respondents experienced problems with garment fit relating to specific problematic body locations. They sought clothes that enhanced their body shape and were aware if their own body shape did not conform to industry standards. Shim and Bickle (1993) focussed on women aged 55 and over. Differences in fit satisfaction between tall, medium and petit women were compared. This study demonstrated that satisfaction levels were low and identified specific issues such as length of trousers, skirts and dresses as problematic. Indication that sizing systems were not catering for a diverse range of heights was evident. It was recommended that retailers should address this lack of diversity and introduce sizing systems that cater for various heights and different ages. After 25 years, most fashion retailers are still operating limited sizing systems and fit problems are still manifest.

Eckman et al. (1990) included fit analysis within a broader context whilst exploring the decision-making processes, consumers experience when purchasing apparel. In total, 80 women were interviewed in two stores in the same city. The women were only questioned after they had tried garments on, so observation on how the garments were selected was retrospective. Three decision-making phases were identified: the selection of the garment (the interest phase), the trial phase (in the changing room) and the purchase decision (to buy or reject). Results suggested that women focus on different characteristics during the initial selection of the garment (colour/pattern, styling and fabric) than they do when they decide to purchase a garment (fit and appearance) or reject a garment (fit, appearance and styling).

All these studies show that fit assessment at an individual level is subtle and complex and women's fit expectations relate to interpretations of bodily aspirations. If these expectations are not acknowledged by fashion product developers the subsequent garments are more likely to remain unsold or returned post purchase.
The clothing industry’s contribution to waste

Unsold garments and returns are both signifiers of non-sustainable fashion practice. A growing number of studies are acknowledging that current fashion systems do not comply with definitions of sustainability. Cataldi et al. (2013) blame fast fashion production for causing serious environmental damage including: the depletion of fossil fuel and fresh water reservoirs; contamination through pesticides use and synthetic fibre production and the release of toxic waste water pollutants. Given that the production of clothing can be so harmful it is appalling that such a high percentage is discarded so casually. According to Fletcher (2014), 1.1 million tonnes of textiles (approximately 18 kg per person) are discarded every year in the UK. Lapolla and Sanders (2015) reported on figures from the environmental protection agency of just over 41 kilos of clothing and textiles wasted per person every year in the USA. Textiles waste in landfill sites produces methane emissions, pollutes the ground and can contaminate water systems. Levels of waste disposal appear to be growing as consumption levels rise (Fletcher, 2014).

Waste is also generated by the production of fashion ranges that are rejected by the consumer and never leave the store, forcing redistribution (Grose, 2013). Businesses like TK Maxx buy up and sell unsuccessful lines. The vast scale of this global player is an indication of how significant the quantities of unsold fashion goods are. Even more worrying are the reports of clothing being sent straight from the shop to landfill. H&M and Walmart have both been accused of slashing or damaging unsold clothing, before leaving it out for municipal rubbish clearance providers (Dwyer, 2010). Reports also claim that faulty goods are incinerated even before they get into the store (Grose, 2013).

The link between inconsistent and limited sizing systems and the creation of textiles waste has not been previously addressed. This study identifies the relationship between current sizing practice and waste creation, by analysing responses about one particular dress, which was rejected by all 20 participants.

Methodology

The project involved a multi-disciplinary team of researchers from Manchester Metropolitan University and Health Psychology researchers from Staffordshire University. Qualitative data were collected whilst participants were trying garments on, and in subsequent interviews (see reference blinded for peer review for linked psychology research from the larger study). A variety of dress styles were purchased from four UK retailers (see Table I). Participants were told that they could take one of these dresses home with them. At the end of the data collection period, all the dresses had been selected except one particular style. The data analysis for this study seeks to determine the reasons why this dress remained on the rails, rejected by all 20 participants.

Recruitment of participants

In total, 20 participants were recruited by word of mouth and e-mail, sent initially through a university network then snowballing to include a wider demographic. This study was designed as an in-depth, qualitative study and therefore the number of participants was limited to 20 in order to enable a thorough analysis of the rich data. The majority of participants worked in administrative roles, with only 2 of the 20 recruited having direct clothing industry experience. All were between 18 and 45 years old and self-selecting as UK size 10, 12 or 14. One participant self-identified as a size 14, 8 as size 12 and 11 as 10. It was not possible to ascertain why less women who were a size 14 volunteered for this study but speculatively it is possible that women who are smaller are more comfortable about talking about their bodies. The limitation on size was implemented because dresses were purchased specifically for this study. Restricting the size
range of the participants meant that a greater variety of dresses could be purchased with the limited funding that was available. Each participant was given a separate timeslot. Dress availability was a factor that required careful management in order to ensure that there was one of an appropriate size available for everyone who participated. Participants were sent details explaining research procedures in advance and consent forms were completed before data collection. Women agreed for quotes to be used anonymously in reports.

**Retailer and garment selection**

Four retailers (H&M; M&S; Newlook; Topshop) were selected from a larger sample who matched the criteria of: providing dresses in sizes 10-14; having a national UK presence; providing primary sizing data online; and having retail outlets marketing to consumers between 18 and 45. Dresses were chosen because they have a fit relationship with the primary (bust) and secondary (waist and hip) dimensions used to designate clothing size to the customer (BSI, 2002). A total of 24 dresses were purchased (Table I) from the retailers where they had available stock in 10-14. The dresses were selected in order to provide a wide selection of styles in order to replicate what would typically be available to them during a shopping visit to one of the selected retailers. Where possible, each style of dress was purchased in only one colour in order to differentiate between the influence of garment characteristics (style and colour) during the selection process. All the dresses were made from woven non-stretch fabric except one which was slightly stretchy due to

<table>
<thead>
<tr>
<th>Retailer</th>
<th>Code</th>
<th>Description</th>
<th>Colour</th>
<th>Fabric</th>
<th>Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>H&amp;M</td>
<td>H&amp;M-PktTunic</td>
<td>Plain garment with little bust, waist or hip shaping. Garment cut as a simple tunic style</td>
<td>3 × Pink</td>
<td>100% Woven Polyester</td>
<td>£24.99</td>
</tr>
<tr>
<td>H&amp;M</td>
<td>H&amp;M-ShrtBttn</td>
<td>Fitted style with shirt placket opening to waist level, capped sleeves and collar detail</td>
<td>3 × Salmon</td>
<td>97% Cotton 3% Elastane Stretch Weave</td>
<td>£24.99</td>
</tr>
<tr>
<td>New look</td>
<td>NL-FCapeTea</td>
<td>Fitted bodice with flared skirt, cuffed sleeves and collar detail</td>
<td>1 × Scarlet (10)</td>
<td>100% Woven Polyester</td>
<td>£27.99</td>
</tr>
<tr>
<td></td>
<td>NL-Shrt</td>
<td>Short sleeve, loose fit dress with flared lower skirt and unfitted bodice, belt provided to cinch in waist level</td>
<td>2 × Blue (12 and 14)</td>
<td>100% Woven Viscose</td>
<td>£27.99</td>
</tr>
<tr>
<td>M&amp;S</td>
<td>M&amp;S-Twist</td>
<td>Fitted dress style with exposed CB zip and twist detail above bust area on the bodice</td>
<td>6 × Red</td>
<td>100% Woven Polyester</td>
<td>£39.50</td>
</tr>
<tr>
<td>Topshop</td>
<td>TS-PitTunic</td>
<td>Fitted tunic style with exposed CB zip and pleat detail on the front of the bodice</td>
<td>1 × Purple (10)</td>
<td>Main 100% Woven Polyester Lining 100% Woven Acetate</td>
<td>£46.00</td>
</tr>
<tr>
<td></td>
<td>TS-DrapeDtl</td>
<td>Loose fitted long sleeve with slit opening down the CB. Skirt is full with unfitted bodice, elastic and a belt at the waist provides shaping</td>
<td>2 × Green (12 and 14)</td>
<td>100% Woven Polyester</td>
<td>£55.00</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2 × Cream and Yellow (10 and 12)</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>1 × Blue and Green (14)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Table I. Details of dresses
its 3 per cent elastane fibre content. During the research garments were coded (Table I) using either the codes on the swing ticket or a short abbreviated code to make managing data easier.

Coding of the participants to preserve anonymity
Each participant was provided with a unique code, these codes were then converted to alphabetic letters and full names beginning with that letter for qualitative results relating to wearer perceptions. This coding retained the anonymity of the participants.

Qualitative data collection
The initial stage was for each participant to select a dress from the seven different styles provided. They could try as many of the dresses on as they liked before they made their final decision. This stage was set up to mimic the decision-making processes that take place when a garment is purchased within a store. The selection stage was broken down into two separate processes:

1. assessment and selection from the rail when the garment was still on the hanger; and
2. assessment of the dress on the body and the subsequent selection or rejection.

Women were provided with a private cubicle with a mirror. Once they had the dresses on they were joined by one of the researchers who audio recorded their observations as they tried the dresses on. A further short interview probed into their body image perceptions related to their selected garment. All the data were transcribed.

Analysis of the results
Although the aim of the larger interdisciplinary study was to investigate women’s experiences of dress fit and body image, it became clear during the analysis that one particular dress was constantly rejected. This rejection was of particular concern for the apparel experts, both of whom have research interests in sizing and garment fit. Therefore, a focused analysis was conducted to identify why the dress was rejected by so many. Keyword searches were initially used on the transcripts of the participants’ observations made during the dress selection and fit trials in order to identify why the dress was rejected. To establish whether this rejection was related purely to fit problems or whether other factors influenced the rejection the data were coded to identify categories. Categories were then combined and relationships between the categories were explored.

Findings
Rejection of the pink dress
In total, 20 participants took part in the study. During stage 1 of the assessment, the pink dress was selected at least as many times as the other dresses. In fact, exactly half of the participants (10) chose to try it on. Out of those who did not select it to try, eight did not mention why and two participants rejected the dress because of colour preference. Only one other dress was selected by more participants (11 times) and the dress selected the least number of times was tried on by four participants. All the other dress styles were tried on by either eight or nine participants. It was during stage 2 of the selection process, when the participants were assessing the garment on the body that the problems with the pink dress began to emerge. The most predominant theme was that of poor fit which caused or contributed to the rejection of the dress by all ten participants who tried the dress on. Colour preference also featured as an influential factor causing rejection. Themes and relationships between themes are illustrated in Figure 1.
Fit rejection: too tight: hips, thighs and buttocks
The most common complaint from those who tried the pink dress was that it was too tight around the hips, buttocks and thighs. Eight out of the ten participants who tried the dress on experienced this fit problem. One participant complained about the dress being so tight across the hips, she could not get it on:

THERESA: I couldn’t get it over my hips, I had to take it off again.

However even the next size up was considered to be too tight.

THERESA: This one goes on but I still had to pull it over my hips.

Size code smaller than expected
Seven participants found that the initial dress they tried was generally too small. Two could not even get the dress on. Only one of them went on to try the larger size, which was still too tight. Five participants were clearly perturbed when they found that the size that they initially selected was too small. Comments were indicative that slimness was perceived to be desirable and consequently misleading size coding contributed to making the women feel larger and less attractive:

ISABELLE: It’s even tighter than the other one […] it’s not doing anything for my self-esteem.

PETRA: It’s too small around my hips and bum […] [it makes me feel].

[…] not very attractive […] yeh it makes me feel bigger.

Some participants reacted indignantly at the idea that they had to try a larger size than normal:

QUEENIE: I’ve never been a size 14.

LISA: If this is a 10, then it should be a breeze to put on.
Too revealing: fit, style and fabric

Seven of the participants complained that the dress was too revealing. Two of these comments related to the fact that it was too tight over the hip region:

ANNA: It’s quite tight on my bum [...] Yeah, I don’t want my ass on show.

Two participants were conscious that the fabric revealed their underwear and “lumps and bumps”, whilst others were uncomfortable that the styling or cut of the dress revealed specific regions of their bodies that they preferred to conceal including: knees, cleavage and arms:

ANNA: I can just imagine giving everyone a good eyeful [...] from bending over. I get told off by my Mum and Dad.”

Shapeless: too loose on waist

Many of the participants who said the dress was too tight on the hips also complained that the dress was too loose around the waist. This “shapeless style” was considered to be unflattering. One participant realised that the dress was designed to be unfitted at the waist but it was not a style that she was usually attracted to:

OLIVIA: I usually go for a dress that has more of a waist but I suppose that’s missing the point.

It was the combination of tight hips and loose waist that caused the most concern:

ANNA: Gosh it’s dead baggy round here [the waist] […] Oh my god!

Do you remember I said about those ones that cling to your bum?

There it is, it’s quite tight on my bum.

Shape: looser on the top

The second issue relating to shape was that it tended to be looser around the top (bust, armholes, shoulder) than it was on the hips. A number of participants who complained about tightness around the hips were satisfied with the fit around the bust. More extreme examples of this problem also occurred with the dress being too tight on the hips and too loose on the top.

Rejection: colour

In comparison to fit the influence of colour was minor. It caused two participants to reject the dress before trying it on and one participant was swayed by colour in her decision making. The participants’ comments indicate that colour preference in clothing is closely related to the enhancement of personal attraction. Participants had clear opinions about which colours suited them or enhanced attraction and which were perceived to deter it:

LISA: I tend to stay away from pinks and reds because they make me look pale.

One other colour subtheme emerged and that was the notion of seasonal colours. One participant was deterred from taking the dress because the colour was one she associated with summer, thus limiting its wearable lifespan:

THERESA: It’s more of a summery dress, so if it was a dark dress, more of a wintry colour, I think I could wear it with black or dark brown tights and boots.

Discussion

The importance of fit

The analysis highlights some important issues relating to fit. First, although none of the women selected the pink dress to keep, half of them selected it to try on. This is worth noting
because it identifies the difference between how women assess clothing on and off their bodies. The study demonstrates that it is only once a garment is on the body that the decision about purchase is made. This concurs with Eckman et al. (1990) who found that women initially selected dresses using a different set of criteria to the criteria used in the changing room. In the context of online retailing, these findings highlight the difficulty of meaningful consumer assessment of a garment before purchase. It helps to explain why the percentage of women returning clothing is reported to be as high as 54 per cent (Sender, 2015). In a similar way to catalogue purchase, online retailing forces the secondary and crucial assessment of a garment on the body to be conducted at home, only after the purchase has taken place.

The findings of this study not only demonstrate how important it is for women to assess a garment on the body prior to purchase but it also reveals that women have a clear idea of what they expect from a garment in terms of fit. This concurs with previous studies (Shim and Bickle, 1993; de Klerk and Tselepis, 2007; Apeagyei, 2008; Grogan et al., 2013) and indeed familiar themes emerged from the analysis: the preference for flattering garment shapes, specifically those that enhanced the waist and emphasised or created an hourglass body shape. The rejection of anything was too tight, too revealing and therefore inappropriate and a preference for a proportionally balanced body shape.

The findings also add evidence to support the claim that the use of fit models in industry is outmoded and inappropriate and the cause of fit problems for anyone who does not conform to the body shape of the model (Ashdown and O’Connell, 2006; Bye et al., 2008; Brownbridge, 2012). Shim and Bickle (1993) who conducted a much larger qualitative study identified length of trousers, skirts and dresses as being the primary cause of fit dissatisfaction. The results from this study focus more on girth measurements. The rejected dress did not conform to any of the participants’ body shapes. This nonconformity was, however, consistent in that it was too tight on all the participants’ hips and either too loose or fitted across their bust. Speculatively, this dress was developed for a fit model with a very different body shape to that of the participants in this study. This observation may appear to be contradicted by the acceptance of the second dress from the same retailer (H&M) by three of the participants. Both dresses were pink, would presumably conform to the same size specification and potentially be fitted on the same fit model. The rejected dress, however, was a shift shape, styled to skim over the hips and made from a non-stretch woven fabric. The accepted dress was a button through shirt dress that flared slightly from the hips and was made from a stretch cotton sateen. This comparison indicates that good fit is more crucial for some garment styles than others. In this case, the shirt dress was still tight across the participants hips but the inclusion of elastane in the fabric and the flared skirt prevented the participants rejecting the dress.

Finally, the size coding on the pink dress was also problematic. When the participants tried the dress on and it was tighter than they expected, their responses indicated that they were frustrated by what they considered to be misleading information. There was also evidence to support the theory that women identify with their clothes’ size (Grogan, 2016) and when this link is disrupted and the familiar size is replaced by a larger size it causes discomfort and body dissatisfaction. The frustration of being misinformed and the feelings of discomfort both contributed to the dress being rejected. Size coding is a complex issue and this finding indicates that garments that have been coded smaller than the prospective purchaser expects are more likely to be rejected. It is well documented that many retailers avoid this pitfall by implementing vanity sizing, in order to flatter women into purchasing (Treleavan, 2007). Paradoxically, although vanity sizing may please women and influence them to purchase, it also increases sizing inconsistency amongst retailers, which increases frustration for consumers, prevents purchase and increases the risk of returns (Labat, 2007; Kennedy, 2008). Findings from this study show that women can feel disappointed and
deflated when they find that the size number on the label of the garment they are trying does not match the size they identify with. These sizing numbers can actually have a very tenuous relationship to how a garment fits and negative feelings invoked by the number on the label appears to contribute to the rejection of the garment. This finding supports Kinley (2003) who suggested that retailers de-emphasise the number on the size label in order to focus on achieving comfort through appropriate fit.

Poor fit and its contribution to textiles waste

This small-scale study provides insight into how sizing, a very specific area of clothing practice can contribute to waste and pollution. As the debate around the fashion industry’s contribution to non-sustainability matures (Cataldi et al., 2013; Fletcher, 2014; Binotta and Payne, 2017), it is important that specific problems that contribute to poor practice and result in waste are identified. Only then can real initiatives for improvements be implemented. This is already starting to happen as individual experts from particular fields of research start to acknowledge the environmental impacts caused by established methods of practice. Cassidy (2013) for instance suggested that current methods of colour forecasting should be amended in order to consider customer preference and therefore limit levels of unsold stock due to the use of colour that does not appeal.

Even when sustainable manufacturing practice is used, the application of flawed sizing practice, resulting in garments that do not fit compromises sustainability. Evidence from this study suggests that garments are currently being produced that do not fit a large proportion of the population. There is clearly a need for a different, more considered and accurate approach.

Speculative practice leading to waste

The fashion supply chain currently works on a system where the provider (retailer) decides what to produce and the consumer selects from this predetermined offer. In order to develop fashion goods, a complex number of processes must take place, all requiring skills, knowledge and the acquisition of appropriate data. Sizing is just one of these processes. This system is not fail-safe and consequently every time a batch of garments is produced, the retailer is taking a risk on whether the batch will sell through. The demand for ever increasing efficiencies creates a situation where personnel are expected to work shifts of 12-15 hours (Grose, 2013) and therefore decisions are often made under extreme pressure. In addition to this highly pressurised environment, problematic and underdeveloped systems such as those used to size mass-produced (Aldrich, 2007; Ashdown, 2014) clothing add to the risk that a product line will not sell.

Conclusions

This small-scale study set out to understand why women rejected one particular dress, as a way to investigate broader issues around clothing rejection and clothes waste. Poor fit of the target dress was the predominant theme in interviews with women who rejected the dress, and women were frustrated at inaccurate sizing information. Lack of fit linked with body dissatisfaction as a result of the dress being tighter than expected. Consumers need to be able to read some kinds of coding system in order to identify their size; however, it is clear that the current sizing chaos is no nearer being solved despite many attempts to do so. This study demonstrates how current systems of numerical size coding can contribute to the rejection of garments. Further research to develop and evaluate less emotive and more informed systems of coding are necessary. In addition, manufacturers appear to be unable or unwilling to sacrifice the perceived need to minimise the
amount of sizes produced in order to facilitate systems that cater for greater size diversity. Further, qualitative research would help to gain insight into why it is so difficult to create change within the fashion industry. In addition to this, consumer research is needed on sizing communication and coding systems in order for any meaningful improvement to be made.

Poor clothes fit has important implications for creating clothes waste and this study demonstrates a link between poor sizing practice and textiles waste. Further research is needed in order to gain insight into the extent of this issue. Very little known about how retailers deal with this issue and it remains hidden. Research that tackles this problem and brings it into the public sphere is needed.

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Further reading


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285 Editorial advisory board

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    Kaisa Vehmas, Anne Raudaskoski, Pirjo Helkkila, Ali Harlin and Aino Mensonen

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    Jyeon Kim, Joohyung Park and Paige L. Glovinsky

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    Ui-Jeen Yu and Ji-Hyun Kim

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    Sivasankari Gopalakrishnan and Delisia Matthews

369 Price and perceived product quality: a comparison of denim jeans in three price categories
    Behnoosh Ghaani Farashahi, Elizabeth Easter and Kate Annett-Hitchcock

387 Effects of multi-brand company’s CSR activities on purchase intention through a mediating role of corporate image and brand image
    Jihyun Lee and Yuri Lee

404 Consumer online purchase behavior of local fashion clothing brands: information adoption, e-WOM, online brand familiarity and online brand experience
    Muhammad Sabbir Rahman and Mahafuz Mannan

420 Fashion bloggers: communication tools for the fashion industry
    Laura Esteban-Santos, Irene Garcia Medina, Lindsey Carey and Elena Belido-Pérez

438 Fashion misfit: women’s dissatisfaction and its implications
    Kathryn Brownbridge, Simeon Gill, Sarah Grogan, Sarah Kilgariff and Amanda Whalley