

ABSTRACT

HELLER, ASHLEY NICOLE. "Lingerie Enthusiast in a Digital Age: Consumer Behaviors and Sense of Self" (Under the direction of Drs. Anne Porterfield and Delisia Matthews).

Lingerie has the power to bolster self-esteem, encourage self-actualization and give enthusiasts an avenue to explore their ideal self. There are gaps in current available research regarding who lingerie enthusiasts are in terms of their psychographics, what their consumer motivations are, and the best way to cater to their purchasing needs within an ecommerce industry. The purpose of this qualitative study was to examine the consumer motivations and online shopping habits of seven lingerie enthusiasts, and how 3D lingerie product simulations might influence their purchasing decisions. The researcher also joined and participated in an online lingerie community. Lingerie enthusiasts were determined by a pre-screening questionnaire to gauge hedonic shopping values distributed in Facebook groups for lingerie enthusiasts. After the sample was secured, the researcher used a discussion guide to conduct individual interviews with the seven lingerie enthusiasts selected. Conversations were transcribed and coded to reach data saturation where six themes were identified: Power of the Perfect Pair of Panties, The Typical Atypical Body, The Queens of Lingerie, Luxury is a Click Away... or is it? Your Virtual Tailor, and A Digital Disturbance. These six themes identified the congruency between lingerie and enthusiasts' perception of self/self-esteem while exploring social media as an avenue of consumption and found the enthusiasts who struggled with fit are open to 3D visualizations of lingerie and find value in the capabilities. The data also resulted in information that demonstrated a discomfort and a lack of believability towards avatars from several of the participants. These findings allow future studies to build upon the foundational discovery of lingerie enthusiasts' consumer motivations. This study provided insight towards further defining the psychographics of lingerie enthusiasts but also insight for future research within the consumer behaviors

category for industry use. The data can further ensure a positive customer environment in ecommerce. The work was considered academically seminal and provided opportunities for future research to build upon.

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Lingerie Enthusiast in a Digital Age: Consumer Behaviors and Sense of Self

by
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A thesis submitted to the Graduate Faculty of
North Carolina State University
in partial fulfillment of the
requirements for the degree of
Master of Science

Textiles

Raleigh, North Carolina
2022

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DEDICATION

In dedication to my darling children and loving partner who fill my time with such joy and excitement without whom this thesis would have been completed in an organized and timely manner (about two months ago).

BIOGRAPHY

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Chapter 1

Introduction

This paper qualitatively explores consumer behaviors in relation to lingerie (also known as intimate apparel and inconspicuous fashion) relating to self-image, body image, and ecommerce purchases (lingerie in this research can be defined as a fashion bra and panty set, garter belts, stockings). The lingerie industry is a sizable and growing market with consumers varying in age, gender, and geographical location that lends itself nicely to ecommerce success. The intimate apparel industry is growing with an estimated worth of US\$30 billion with a growth of nine percent over the next five years (Hume & Mills, 2013).

Currently, lingerie is the most successful fashion product purchased online (Ashworth et al., 2006) and the lingerie market allows customers a variety of brands, choices, designs, and in some instances, customization from the privacy of their home. E-commerce is rapidly expanding towards 3D product visualizations within the apparel industry (Jiang et al., 2019), although ecommerce-based shopping needs in the intimate apparel industry are still not widely studied. Lingerie enthusiasts by nature are hedonic shoppers, defined by adventure, gratification, role, value, social, and ideal shopping motivations (Kang & Park-Poaps, 2010). Kim introduced the concept that hedonically motivated shoppers had a stronger positive relationship with product visualization technologies (Kim & Forsythe, 2007). To provide the best online shopping experience and tailor it to their needs, more information on enthusiasts' needs is required.

As Elizabeth Wilson says in *Adorned in Dreams*, a feminist discourse that brought fashion into academia, "Underwear is a product that seems to serve no obvious purpose" (Wilson, 2013, p. 90). The idea behind lingerie is that the value is not in what it does, but what it means to the consumer. Consumer behaviors for lingerie are different from all other types of

apparel. The relationship between apparel, body, and self is intertwined and should be recognized to accurately address the needs of each consumer (Johnson et al., 2014). Self-concept, the sum of a person's thoughts/feelings about themselves, has been shown to be influenced by what they purchase and put on their body, including lingerie (Hume & Mills, 2013).

Unfortunately, there is a gap in consumer behavior studies within the intimate apparel industry, particularly around lingerie enthusiasts purchasing online. One could hypothesize that there is a vast majority of consumers who are not yet being reached. Given this, the aim of this research study is to first define who a lingerie enthusiast is in terms of their psychographics, then determine their purchasing motivations by conducting open-ended conversations. The goal in understanding purchasing motivations is to see how self-image and esteem contributes to consumption in this apparel segment. This research also aims to determine lingerie enthusiasts' openness to 3D and virtual product visualization in their online purchasing process to better serve their individualized needs.

Statement of Problem

Intimate Apparel can be seen as both a symbol and tool of identity while also providing satisfaction to the wearer by fulfilling functional needs. While intimates are the first thing feminine dressing individuals put on, they mostly remain unseen. Intimate apparel provides compression, shaping, and lift that can enhance the wearer's confidence and shape of body. Intimates are the framework for an entire outfit and can quite literally transform the wearer in both body and mind (Tsarenko & Lo, 2017). With an article of clothing that powerful, one would expect a plethora of research and knowledge available. Examination of current research led to the three areas which needed further development. Who lingerie enthusiasts are, the way intimate

apparel is so delicately interconnected with a sense of self, and the best way to reach lingerie consumers are questions that require further attention.

Identifying Lingerie Enthusiasts

When measuring consumer involvement in relation to purchases, there are vast differences between hedonic and utilitarian motivations. The way consumers shop can influence advertising strategies, involvement profiles, prices, visualization technologies, and where company values are placed (Kang & Park-Poaps, 2010). Fashion behaviors in general are rooted in both emotional and psychological motivations but can be narrowed down to two distinct drives, hedonic, which is gratification and adventure seeking and utilitarian, which is rational, and task related (Kang & Park-Poaps, 2010). When determining who a lingerie enthusiast is, Tsarenko & Lo (2017) concluded in their study that enthusiasts are hedonic shoppers who derive significant hedonic value from bra purchases, claiming lingerie shopping to be, “one of life’s pleasures” regardless of its nature as a high-risk purchase (Tsarenko & Strizhakova, 2015). In opposition, pragmatists/utilitarian shoppers held the lowest score in hedonic motivation, did not derive pleasure from lingerie shopping, and did it less often. Enthusiasts were a more demanding group of consumers with a high score on projected identity that aligns with brand imaging, suggesting that their self-image is closely tied to brand identity. While Tsarenko and Lo (2017) delved into who an enthusiast is, most lingerie research has been conducted through random sampling of women which captured a picture of the population, rather than focusing on a specific group (Tsarenko & Strizhakova, 2015) (Jantzen et al., 2006) (Hart & Dewsnap, 2001). There is an additional need for research that both identifies and defines the psychographics of enthusiasts.

Self-identity and the Power of the Perfect Pair of Panties

Intimate apparel facilitates a sense of worth and fantasy, allowing the consumer to control their sensuality and femininity while also transforming their self-image and strengthening their self-esteem (Jantzen et al., 2006). Lingerie has the capacity to preserve the wearers' identity while allowing them to explore who they want to be, encouraging that definition through a deeply intimate journey between self and silk. Self-esteem can be described as feeling of affection for oneself and self-image can be described as how the consumer sees themselves (Brown et al., 2001). These two concepts are not to be confused with confidence, which is an externally based projection of assuredness (Oney & Oksuzoglu-Guven, 2015). While confidence is a valid consideration within a lingerie enthusiast's consumer motivation, it does not accurately represent their psychological journey as confidence can be perceived/projected (Oney & Oksuzoglu-Guven, 2015). With perception of self intricately intertwined with consumer motivations, it is especially important in intimate apparel. Research gaps in qualitative studies show updated research is required. The sense of self and identity is related to commercial beauty culture and with the current open dialog of inclusivity and growing body acceptance, the data sources available are dated (Tsarenko & Strizhakova, 2015). For example, lower self-esteem was associated with women who had smaller breast size in 2000 therefore lingerie that altered the breast size was shown to be desirable (Hart & Dewsnap, 2001).

Lingerie in ecommerce

Meeting a customer in the buying arena of their preference is essential to fostering customer loyalty and satisfaction. As mentioned earlier, lingerie is the most successful fashion product purchased online (Ashworth et al., 2006) and has a substantial virtual community. More recently there has been an influx of bloggers, social media influencers, and reviewers that have shifted the reputation of lingerie and the perception of quality and product innovation. Because

of consumer desire for product innovation and ecommerce, there is an opportunity to expand on user experience and interactive product displays (Sanchez Torres & Arroyo-Cañada, 2017). By implementing 3D product images with 360-degree full rotation view and interactive technologies, time spent on apparel websites and purchasing conversion rates can be increased (Kim & Forsythe, 2007). Online 3D product displays are primarily hedonic in nature, devised for entertainment and click-ability. With lingerie being a hedonic purchase and the potential for interactive 3D virtual displays, the hedonic value of technology could be explored further. Building customer loyalty and trust while also capitalizing on a growing industry of ecommerce and 3D design could prove beneficial. Through further study and qualitative research methods, addressing and then defining who lingerie enthusiasts are, what intimate apparel means to them, and how to meet their ecommerce needs can address the overarching issue of understanding and better aiding the once taboo, lingerie industry.

Background and Need

The research behind what we wear and why provides a critical component in the development of the social psychology of dress and how it influences our thoughts, ideas, attributions of self and others, and relationships we form with ourselves (Johnson et al., 2014). Dress being defined as, “an assemblage of modifications of the body and/or supplement to the body” (Roach-Higgins & Eicher 1992, p. 1) illustrates the idea that what we wear modifies and gives meaning to the body, not only physically but also supplementing areas we previously found lacking. What consumers wear can lead to negative judgments and connotations (a red dress being deemed as racy) by others whereas intimate apparel is not as obviously seen and can give that self-expression back to the wearer without external judgments. Researchers Johnson, Lennon, and Rudd (2014) delved into the social psychology of dress, determining that women

were directly affected by what they wear in how they viewed themselves and how others viewed them. This reiterated Bem's self-perception theory that indicated the same way we form opinions and ideas about others, we form inferences about ourselves (Johnson et al., 2014). This research showed that consumers are more likely to purchase products that align with their actual self (who they are) and their ideal self (who they would like to be). Without having depictions of who lingerie enthusiasts are and how they shop, the intimate industry is unable to grow this segment to match the demand within this rapidly changing ecommerce setting.

Defining the Target Market

As previously discussed, defining the market of lingerie enthusiasts is instrumental in discovering consumer behaviors and perceptions of products. Tsarenko & Lo (2017) inferred that surveying women, whether they are interested in lingerie products or not, did not provide accurate results in determining consumer motivations towards lingerie. Lingerie and intimate apparel are considered a specialty and occasionally luxury purchase with high hedonic value. To better understand purchasing behaviors of lingerie customers, several studies have embarked on solutions including age categorization (Tsarenko & Strizhakova, 2015), evaluation of the involvement theory to better understand consumer consumption segments (Tsarenko & Lo, 2017), and ethnographic work within private at-home parties hosted by Anne Summers (a female centered shop that includes pleasure products as well as lingerie) representatives (Amy-Chinn et al., 2006). In several studies, age was shown to be a better indicator of hedonic lingerie consumption over social or economic factors (Tsarenko & Strizhakova, 2015).

Tsarenko and Strizhakova (2015) hypothesized that hedonic consumption and store personnel helped to bridge the gap between the moment a consumer steps foot into a store and when they left with a purchase. Findings confirmed that younger consumers required less help

from associates and store personnel but were more hedonically motivated to purchase a larger amount. In addition, they were less likely to engage in the fit process. Older consumers were not hedonically motivated, appreciated assistance with fit, and were more loyal to brands, but purchased less. The lingerie industry bombards consumers with images of youthful beauty and sexuality when that image does not accurately depict the variety of lingerie consumers. This in return alienates those who do not align with that narrow self-concept. By excluding varying bodies, cultural backgrounds, and age, the lingerie industry discourages a segment of financially stable and loyal shoppers (Tsarenko & Strizhakova, 2015). This study also included a wide variety of women, not just lingerie enthusiasts. There is potential to build upon this study by determining what older women need in order to feel catered to and recognized by the lingerie industry and by providing them with the same environment and feeling younger women get.

Tsarenko and Lo (2017) defined lingerie enthusiasts in their research to expand the dialog within the lingerie industry, ranking Australian females within three distinct categories of bra shoppers based on enjoyment and comfort of purchase: Enthusiasts, Dilettantes, and Pragmatists. This study provided a basis on which to gauge who an enthusiast is by reviewing the hedonic value scale used to measure consumer involvement. It was determined that enthusiasts found bra shopping to be special and exciting/fun. Enthusiasts projected their identity and interests beyond just the bra purchase, showing that the shopping experience and product enhanced their self-image and individuality (Tsarenko & Lo, 2017). Tsarenko developed research where enthusiasts standing can be determined, but additional research is required to understand who they are as individuals and how they are motivated.

Updating Resources

Modern and up-to-date research is important in gathering the most accurate findings. The seminal research articles regarding consumer's perceptions of self/identity are now eight to fifteen years old. Self-perception, esteem, and body image are greatly affected by cultural shifts and societal standards (Yip et al., 2011) and each year, the culture shifts to become more inclusive and bodily aware, encouraging a multitude of shapes and sizes. While media still portrays an ideal, shifts toward body acceptance have gained traction with companies like Aerie which emphasize unedited figures in a wider range of sizing. Research in consumer behaviors in the lingerie enthusiast's category is nonexistent but foundational work can be found in prior studies that expanded consumer motivations in the intimate apparel industry. Hume and Mills explored women's luxury perceptions of intimate apparel and their purchasing behaviors by utilizing research interviews, group forums, and narrative capture to support their findings that self-image and brand image are intrinsic to one another in the intimate segment (Hume & Mills, 2013). Another link was shown in their findings that lingerie, while being a private product, was strongly related to the perceived sexy self. In other words, while intimates are not seen by most, the consumer's self-image is influenced so they perceive themselves in a different and more positive self. The research showed that women who had a strong self-image and saw themselves as sexy preferred brands that reflected that same image back within their marketing. This further identified the link between a consumer's perceived self and actual self. It was shown that when their perceived self was mirrored, more purchases were made (Hume & Mills, 2013). Hume & Mills' research can be further expanded by researching the changed ideas of what "sexy" is and defining what sexy means to the modern consumer. Before, lingerie was thought to be made to

be worn for someone else, now studies show it is about the consumer's needs before anything else (Hume & Mills, 2013).

Jantzen et al (2006) expanded on the technologies of self as they related to consumption and identity in intimate apparel. This research touched on the idea of the modern woman "seizing control" of her femininity and sexuality rather than being controlled as well as the notion of lingerie fulfilling those ideas of who the wearer truly is (Jantzen et al., 2006). The group studied were white middle-aged women, with the majority being 23 to 32 years old in Denmark. While this study provided some great initial information on who lingerie consumers are and how they feel, it was not a diverse or inclusive sampling. As a result, more research is needed primarily within the lingerie enthusiast category.

Meeting Enthusiasts purchasing needs

Discovering the avenue the consumer wants to purchase from is important in building consumer loyalty and trust. The nature of lingerie purchases is hedonic as is the utilization of technology in online apparel shopping (Kim & Forsythe, 2007). As mentioned prior, lingerie is the most successful fashion product purchased online (Ashworth et al., 2006). Therefore, there is a need to connect these areas of research to capitalize and meet the growing need for virtual lingerie product development and visualizations, which has yet to be done. The research that is needed can be built upon articles like Jiyeon Kim and Sandra Forsythe (2007)'s research, which delved into the hedonic enjoyment of the online shopping process and how shopping online offered a different virtualized form of entertainment that could include 3D visualizations as part of the hedonic experience. Data were collected based on a survey where an online shopper opened a virtual 3D rotational view of a product with virtual try-on technology and completed a survey. The empirical results concluded that the virtualization technologies and 3D product

visualization had a positive impact on online apparel purchasing behaviors (Kim & Forsythe, 2007). While this study implemented the factors of online hedonic consumption, it was not geared towards the lingerie market and there is another level of fit that goes into buying lingerie items online. A bra being a high-risk purchase may not be as open or accepted as another apparel item.

Determining loyalty within e-commerce in intimate apparel is another aspect to address. Torres and Arroyo-Canada (2017) demonstrated the importance of virtual communities within the lingerie industry and that reputation and trust is built upon branded entertainment and user experiences (Sanchez Torres & Arroyo-Cañada, 2017). Greater depth is needed to understand what online communities are being utilized (blogs, Instagram, Tiktok) and what branded entertainment and user experiences the consumers are looking for. There is a need to expand on whether 3D virtualization can be incorporated within those online communities, their members' openness to it, and how user experiences relate to product virtualizations.

With assorted studies addressing the areas of research and need, it is evident that in determining who a lingerie enthusiast is, greater conversations are required in defining a distinct and marketable consumer analysis. From there the research can further delve into updating specific resources surrounding the self-identity and purchasing motivations of these lingerie enthusiasts. Finally, with a solid grasp of who lingerie enthusiasts are and how they purchase, the research can identify purchasing needs in the ecommerce arena, introducing 3D product visualizations to expand on a purely hedonic experience.

Purpose of Study

The purpose of this qualitative study was to examine the consumer motivations of seven lingerie enthusiasts and their online shopping habits, and how 3D lingerie product simulations

influence their purchasing decision. In addition, this study captured an understanding of individual needs in the context of a growing digital and ecommerce industry, while also expanding on the relationship of lingerie and how it is tied to self-image.

Shedding light on an industry that was once kept behind closed doors because of the intimate nature of the product will encourage an already rapidly growing apparel segment. Through in-depth conversation and a well-defined customer base, the lingerie industry can better understand what motivates their consumers and by utilizing 3D visual elements as well as ecommerce strategies to satisfy the hedonic motivations of lingerie enthusiasts, companies can encourage confidence and trust within the brand. Without a thorough grasp on these elements, the lingerie industry could fall behind on innovation and cease to meet consumer's needs which would encourage a lack of understanding or acknowledgment of the link between not just what lingerie does but what it means to the wearer. Additionally, there is currently a functional definition of lingerie enthusiast, this research sought to provide a psychographic definition of lingerie enthusiast (Tsarenko & Lo, 2016).

Research Question

The following research questions guided this current study in investigating lingerie enthusiast's consumer motivations as it pertains to e-commerce, sense of self, and openness to 3D simulations.

RQ1: In what ways do consumer motivations dictate a lingerie enthusiast online shopping habit?

RQ2: What is the relationship between lingerie enthusiasts ' sense of self (esteem and efficacy) and consumer motivations?

RQ3: How do 3D lingerie product simulations relate to consumer motivations of lingerie enthusiasts?

Limitations

Limitations within this study were a small research sample group of seven people. The participants lacked diversity because they were all from the United States and were between the ages of 27 and 37. Answers were based on the sample's honesty and openness with the researcher about their lingerie consumption. There was potential for discomfort or dishonest responses due to the subject matter. The pre-screening questionnaire to select the lingerie enthusiast sample could potentially have swayed responses and reduced the sample's external validity.

Definitions

- Body Image: How one perceives their body.
- CLO3D: 3D computer aided fashion design software used for virtual simulation of garments.
- Dom/Dominatrix: A woman who physically or psychologically dominates her partner in a sadomasochistic encounter (Dominatrix, 2022).
- Drag Queen: A person, usually male, who uses drag clothing and makeup to imitate and often exaggerate female gender signifiers and gender roles for entertainment purposes (Wikipedia contributors, 2022b).
- Enthusiast: A person with a high hedonic shopping profile (Tsarenko & Lo, 2017).
- Hedonic motivation: motivations associated with fashion leadership, adventure, emotional appeal, and pleasurable (Laurent & Kapferer, 1985).
- Self-Esteem: Feelings of affection for oneself (Brown et al., 2001).
- Self-Confidence: Feelings of assuredness and certainty, not to be confused with self-esteem and predictor of buying behavior (Oney & Oksuzoglu-Guven, 2015).
- Sex Worker: A person who provides sex work, either on a regular or occasional basis. The term is used in reference to those who work in all areas of the sex industry. (Wikipedia contributors, 2022)
- Normative Body: A normal body based on your society's social and cultural norms. (Bradley University: Disability, Illness & Non-Normative Bodies, n.d.)
- Utilitarian motivation: Motivations that are task oriented, rational, cognitive, and value driven (Kang & Park-Poaps, 2010).

- Virtual community: A set of individuals who voluntarily relate to each other over the internet, motivated by professing interest in a brand, organization, or product (Sanchez Torres & Arroyo-Cañada, 2017).

Chapter 2 Review of Literature

Introduction

Even with an estimated worth of US\$30 billion (Hume & Mills, 2013), studies within the lingerie industry were exceedingly rare. There was a vast gap in consumer behavior studies, geared towards lingerie enthusiasts and their online purchasing habits. The research questions are, in what ways do consumer motivations dictate a lingerie enthusiast's online shopping habit, how do 3D lingerie product simulations relate to consumer motivations of lingerie enthusiasts, and what is the relationship between lingerie enthusiasts' sense of self (esteem and efficacy) and consumer motivations. In addition, the researcher aimed to define lingerie enthusiasts.

The literature review addresses the three areas related to lingerie enthusiast's consumer motivations and lack of representation. The first section addresses research related to defining lingerie enthusiasts. The second section focuses on research studies about lingerie enthusiast's consumer motivations and self-identity, self-esteem, and body image. Finally, the third section discusses research related to lingerie in e-commerce and implementation of 3D virtual technologies.

Defining Lingerie Enthusiasts

Having a clear image of your consumer is imperative in attempting to study, understand, and cater to a particular market. Unfortunately, the research was limited to the lingerie category. The studies analyzed in the literature review surveyed women without indicating their interest or desire for lingerie products. Therefore, the results included a sample of those who considered themselves enthusiasts and those who did not have any desire to shop for lingerie. The way consumers shop influenced advertising strategies, involvement profiles, prices, visualization

technologies, and where company values are placed. Before we can define the previously mentioned list, research must define the consumer (Kang & Park-Poaps, 2010).

The Enthusiast, The Dilettantes, and The Pragmatist

The bra is considered a gendered product and it has undergone significant transformations in style, technology, and cultural meaning (Tsarenko & Lo, 2017). The bra accounts for 55.5% of the world lingerie market and global bra sales. In 2016, the bra industry was estimated to be worth US\$16.42 billion (Tsarenko & Lo, 2017). Tsarenko and Lo (2017) addressed that the bra is exclusively designed for women, it consists of multiple subcategories, and is closely intertwined with self-concept and image. Utilizing the involvement theory, conclusions were drawn between the person-object relationships to a broad scope of consumers (Tsarenko & Lo, 2017). While some saw lingerie shopping as a chore that imposed on their time and energy, others found pleasure and confirmation in the shopping process. There was a broad scope of brands that targeted specific customer behaviors to meet certain needs, whether it was age related or bra-usage behavior. Before brands invested in understanding their consumer more, they tended to broaden their product range in hopes of capturing their target audience without employing marketing tools, like segmentation (Tsarenko & Lo, 2017). Tsarenko and Lo worked to define who is an enthusiast and who is not.

The purpose of Tsarenko and Lo (2017)'s study was to expand the dialogue on the consumer-product relationship within the intimate apparel segment by implementing the involvement theory. This study employed a sample of 221 Australian females to unveil three distinct segments (Enthusiasts, Dilettantes, and Pragmatists) of female bra shoppers. Demographics, attitude, age, and brand importance were areas surveyed (Tsarenko & Lo, 2017).

The study took place in Australia where their population of interest was Australian females, over the age of 18. Six hundred seven-page questionnaires were distributed at various retail outlets (high end department stores, discount department stores, independent boutique lingerie stores) with a prepaid return envelope attached and 221 usable questionnaires were returned (36% response rate). The returned data were entered in SPSS software to decipher the 221 questionnaires. Four factors of involvement were analyzed: hedonic value, interest in the product, projected identity, and competence. Confirmatory Factor Analysis (CFA) was used as the measurement model. The sample consisted of 42.1% of women within the 25 –39 age range.

As female shoppers entered department stores and boutiques, they were handed a seven-page questionnaire to complete in private due to the intimate nature of the product. The questionnaire was designed to focus on five aspects: fashion consciousness, attitude towards bra shopping, product and service attitudes, and demographic characteristics. The four factors of involvement (hedonic value, competence, interest, and projected identity) were adapted from Kapferer and Laurents's (1985) involvement facets and implemented as a scale of measurement within the survey. These facets were used as a proxy to understand the link between product and consumer. Through Exploratory Factor Analysis and Confirmatory Factor Analysis, the measurement model was deemed satisfactory to gain data.

The results indicated three shopper segments, enthusiasts, dilettantes, and pragmatists. Enthusiasts scored highest on the hedonic scale and were strongly attached to the experience of bra purchasing. Their enjoyment extended beyond the shopping experience into their self-image and the purchase enhanced their individual identity. The Enthusiast preferred bras from high-end, well-known brands that allowed them access to better styles and quality. This market comprised women under 40. The Dilettantes lacked bra purchasing competence but acknowledged the

necessity/importance of the process and found little pleasure in the purchasing experience. Pragmatists considered themselves competent lingerie shoppers yet saw bras as a functional item. The Pragmatists did not value assistance in the shopping experience. While the article did not address a specific age for the Pragmatist group, they were labeled as “older women”.

Several conclusions and implications were drawn from this research’s findings. In the past, there were no direct classifications between bra purchasers other than the acknowledgement that if you were female identifying, you have shopped for a bra before. Tsarenko and Lo (2017) demonstrated that not only are there differences between bra shoppers but that the Enthusiasts are hedonic shoppers that had a vastly different purchasing profile than the utilitarian Pragmatist. Establishing the purchasing clusters and the connection between the Enthusiast, self-esteem, and identity set the tone for future studies to embark on what that meant to a company and consumer. The consumer involvement models this study developed and tested can be implemented to distinguish Enthusiast standing in the current study.

By choosing bras for the study, the research was gendering and limited to one article of lingerie. Bras can be broad in scope, with assorted styles for assorted reasons (sports, lounge, push up, fashion). By narrowing down the scope, choosing fashion bras or lingerie in general, a better idea of specific usage may be obtained.

Who Wears Lingerie?

While Tsarenko and Lo (2017) provided the framework for determining who an enthusiast is, it is important to search for resources that have defined who was consuming the product. Jantzen et al (2006) provided insight into who these lingerie consumers were. Through their dialog-based interviews/research, they established significant findings in the bra and underwear category intending to shed light on the complexity behind the purchase. They

hypothesized that consuming lingerie might be a way of defining femininity and who the wearer “really” is. The authors defined the term underwear to describe casual garments under your clothes whereas lingerie was defined as delicate specialty undergarments (Jantzen et al., 2006). They drew connections between consumption and identity constructs as they pertain to intra-psychology and social/external factors (Jantzen et al., 2006).

This study took place in Denmark. The group surveyed, composed of 22 women, were in the age group of 21 to 41 with the majority being 23-32 years old. Participants were white and middle-class, raised and currently residing in Denmark. The interviews were semi-structured. Of the 22 interviews, fifteen were conducted with female students about purchasing behaviors and two were conducted with lingerie shop associates to gain knowledge about firsthand buying behavior. These 17 interviews were each 50 minutes long. The five remaining interviews were conducted with the same set of subjects to discover how lingerie fits into their everyday life and these interviews averaged two hours in length. All were employed, established in private enterprises and the interviews were conducted by female research assistants.

The group were first asked questions to categorize the uses and users of several types of undergarments. They were shown an advertisement for a pair of casual everyday white cotton brief underwear. In the second round of questions, participants were asked to make distinctions between types of underwear they preferred for different events. This information was then sorted into a scheme of classification and forms of presentability (Jantzen et al., 2006). These interviews ranged from 50 minutes to two hours and were conducted one-on-one.

The researchers found from the data that within the scheme of classification, underwear can be broken up into negative valorization or positive valorization. Negative valorizations include housewife type and harlot type, describing people. Positive valorizations include

weekdays or feasts, describing occasions. Furthermore, they can be viewed on a scale of presentability. For example, the housewife type is practical, but not presentable while the harlot type is sensual and not presentable. Furthermore, two anomalies pertaining to control were established. One concerns the wearer not being prepared and not wearing the correct lingerie/undergarments and the second was the intra-psychological identity where the wearer creates an extraordinary occasion by selecting to wear lingerie to transform herself. This form of data collection and analysis was derived from interview answers.

The results indicated that consuming underwear is about many things other than sex. Three major points were discovered. Undergarments contribute to social identity; they tell you who you are. Undergarments are a tool that can be a catalyst for exploration of self and can also provide a way to connect with yourself and manipulate your “intra psychological” mood. To take it a step further, underwear is considered a technology; “an instrument that furthers the production of emotions and feelings thereby giving its users the opportunity to experience a particular version of modern femininity” (Jantzen et al., 2006, p. 197).

To conclude Jantzen et al., (2006)'s article, lingerie is worn to express self, social standing, and social identity. It is used by women to define themselves and classify themselves as a “real woman.” It is both a symbol and tool of identity and works as a technology of self. It also opens the door to having an experiential experience. As the article states, “Consuming lingerie foregrounds continuity, distinctiveness, self-efficacy, and self-esteem by bringing together past and future in a socially and privately meaningful present.” (Jantzen et al., 2006, p. 200) Although this research could have been conducted using a more diverse sample, this is a fundamentally important understanding in defining who lingerie wearers are. Understanding the

range of who the woman/purchaser is and their thought processes behind the purchase and choice is imperative in the discovery and discussion in defining who they are.

Female Consumption at what age?

A similar study built off the previous article's findings of age variations and delved deeper into the differences between younger and older segments and their intimate apparel needs. Tsarenko and Strizhakova introduced the "moderating effect of age in female consumption" as it pertains to lingerie (Tsarenko & Strizhakova, 2015, p.41). The researchers aimed to inform retailers on how to best suit their customer's needs, including what females of varying ages want. This study was again, based on gendered consumption and used the terms intimate apparel, lingerie, and inconspicuous fashion interchangeably (Tsarenko & Strizhakova, 2015). Focus was on hedonic consumption, store personnel, age, and purchases.

This study aimed to first gain a better understanding of purchasing factors and consumer behaviors in the context of intimate apparel utilizing hedonic variables and store personnel as catalysts to the final purchase. Secondly, the study aimed to input age and see how that influenced the above factors (Tsarenko & Strizhakova, 2015).

A survey method was employed and gathered data from 225 participants (out of 600 surveys distributed with a paid return envelope at three retail locations in an Australian city, a 38% response rate). The locations these questionnaires were distributed at were an upscale department store, an exclusive lingerie boutique, and a discount department store for a range of socio-economic differences and diversity. The at home survey was the chosen method because of the sensitive nature of intimate apparel. 57% were completed by women under 40 years old and 43% were completed by women above 40 years old. The median age was 37 years old. The

survey asked the participants to think about the most recent bra purchase, what store, and general attitude about the shopping experience and derive their responses from that.

Those surveyed were asked how many bras they purchased each year, two questions regarding the fit process and how important that was to them or how it impacted their decision, three questions to determine their hedonic consumption, and lastly, a question about how important the role of the store personnel was to their purchasing decision. All items were ranked on a seven-point scale. The women were also asked what attribute was important to them out of these five: bra fabric, cut, position of seam, available colors, and matching lingerie. The independent variables were product attributes and fitting process, and the dependent variable was purchasing. The moderator was age.

After compiling results, the researchers indicated that both hypotheses were supported. The attitudes towards purchasing and hedonic consumption were elevated when a retail associate was included. The purchase of goods varies based on the age of consumers. Consumers who were younger and purchased hedonically were affected by the engaging fitting environment and purchased more, but older customers did not.

This research provided important insight into hedonic purchasing motivations and external influence however, body image fluctuations with age were not addressed, diversity in location was also an issue, and the data given was limited to the questions asked based on last purchase. The last purchase could have been particularly good or bad and that does not give an accurate picture of an overall mood or feeling towards lingerie or bra shopping. In this study, the researchers addressed a range of questions and regionally diverse participants were selected.

For both younger and older customers, their level of consumption went up the more joy they felt when making purchases. For younger consumers, the joy they felt could be affected by

the sales environment, fit, or options therefore they spent more. Hedonic consumption mediated the fitting process and purchase amount positively in younger customers. Older consumers were not as affected by those factors. Findings also suggested that younger customers relied more heavily on external assurance which could be achieved by the fit process. While this study provided important insights, utilizing the more emotive hedonic aspect of lingerie shopping and applying it across the board does not always appeal to everyone, further increasing the need for a discussion surrounding enthusiasts. Older women are bombarded with youthful standards of beauty and sexiness within stores which can turn customers off and leave them less interested in the experience. Defining who the customer is and what their needs are would alleviate that sense of alienation.

Lingerie Enthusiast's Consumer Motivations and Self-Identity

In the past, lingerie was thought to be for the pleasure of a significant other or to be enjoyed by anyone other than the wearer, however, now studies show it is about the consumer's needs before anything else (Jantzen et al., 2006). As mentioned prior, lingerie has the capacity to preserve the wearers' identity of who they are while allowing them to explore who they want to be, encouraging that definition through a deeply intimate journey. Updating prior knowledge and findings would improve the conditions for customers tomorrow.

The Higher the Self Esteem, the Closer to... Lingerie?

Studies within the intimate apparel industry are lacking and steps should be taken to rectify the silence within this US\$30 billion-dollar industry (Hume & Mills, 2013). Hume and Mills (2013) addressed lingerie as discrete or inconspicuous fashion, undergarments, intimate apparel, or lingerie. The research aims addressed in the Hume and Mills study included an

evaluation of what luxury in lingerie and hedonically motivated consumer behaviors is and how it contributed to consumption. This qualitative study intended to explore consumer behaviors and psychological perspectives in the luxury segment of women's lingerie consumption while also examining if the consumption of luxury lingerie was the same in terms of examination as other luxury goods purchases.

This study sampled 119 female consumers. Multiple methods were used to gain information including group narrative projection, follow-up verification, focus group forum discussions, and extensive in-depth interviewing. The requirements for this sample were gender driven and the group was derived by convenience sampling using a snowball technique. There was a mix of women with children, and women with no children, from all social demographics, all employment types, varying relationship status, and levels of education.

Data was collected via narrative collection involving 53 women. They were encouraged to speak freely about their consumption, desires, and perspectives. Following the narrative data collection, a group forum was utilized. This involved mini focus groups where the researcher's showed pictures of garments, led small group discussions, and encouraged an ecommerce review. The groups concluded with written comments from the members. Additionally, 15 respondents were selected out of the initial group of 53 respondents. With those participants, in depth interviews were held where the subjects discussed advanced topics relating to the subject matter. Body image, self-image, hedonism, function, price, and lingerie were the subjects touched upon. From there data coding was implemented and themes were derived. Open ended questions were utilized. The researchers continued until theoretical saturation was achieved. Questions included but were not limited to, "How do you describe yourself, your shopping habits and social style?;" "What luxury purchases do you make?;" "How do these purchases affect

you?” and “How do they make you feel? How do you evaluate the success of the purchase?” (Hume & Mills, 2013, p. 468).

The results showed a wide variety of information. Of the surveyed group, the responses showed that luxury items were intended for personal pleasure only (self-indulgent) and were limited to those who could afford them. Subjects perceived lingerie as quality products, including French silks and high-end prices whereas cheaper and flashier lingerie products were considered “undies and knickers” (Hume & Mills, 2013, p. 472). Luxury lingerie repeat and repurchase ranked low, suggesting it was a one wear only item for a special occasion. One interesting finding was that those with poorer body image had less brand recognition of sexy lingerie companies and consumers purchased items that aligned with their perception of self (Hume & Mills, 2013).

In conclusion, when self-image and esteem were involved, the subjects with higher perceived self-image and high self-esteem purchased more sensual products and had a keen sense of erotic value to those products. Low self-esteem subjects preferred functional garments. This relates with the findings that women with strong self-image and esteem purchase more sexy fashion lingerie. This confirmed that the luxury lingerie market is linked to self-esteem and body image. While this study presented some insights, further investigation is needed in questions directed only towards lingerie. Additionally, women and beauty are defined deeply by culture surrounding and information with modern ideas should be updated.

Appearance Orientation and shopping

Yip, Chan, Kwan, and Law (2011) looked at the attitudes towards lingerie shopping within Hong Kong while exploring body image and appearance orientation and the expectation of retail service. The researchers addressed the lack of studies pertaining to lingerie and

acknowledged that the information available was vastly outdated. Within this research, intimate apparel was used interchangeably with lingerie and was defined as any garment worn on the skin and underneath clothing (Yip et al., 2011).

This study explored appearance orientation, body image, and purchase intentions with expectations of service quality for intimate apparel in Hong Kong (Yip et al., 2011). The goal was to increase research data on consumer self-image and sexuality in relation to intimate apparel. This study took place in Hong Kong, at Polytechnic University and the surveys were distributed in Wacoal, Triumph, Marks and Spencer, Calvin Klein, and H & M, a total of 15 shops in various parts of Hong Kong. One Thousand five hundred surveys were distributed and 204 were usable. The participants ranged from below 20 years old and above 46. The income in HK\$ ranged from below 10k to 50k or above and education levels ranged from primary school to Graduate. Participants reported a variety of relationship status, but the majority were single.

The participants were given a questionnaire with four sections: lingerie shopping behaviors, expectations of service, appearance orientation derived from the multidimensional body self-relations questionnaire, appearance scales, and demographics. There were revisions also made to refine the data that included eight purchase intentions which consisted of four hedonic intentions and four utilitarian intentions.

The results were sorted by SPSS16.0 and AMOS 7.0 software. The AO (appearance orientation) and BI (body image) were correlated to expectations in service quality. The higher the AO, the more extensive grooming as well. AO was the strongest indicator of service expectations and demanding excellence; they also expected products to be neater and well displayed. Participants with positive BI (Body image) had higher expectations for things as well including grand expectations of customer service. Data revealed that a high appearance

orientation can result with a greater evaluation of appearance and service requirements as well as those with higher body image also required the same. The implications were that by looking at someone, you can infer the expectations they will have.

Positive Thoughts and Self Esteem

Brown et al (2001) looked at the affective model of self-esteem and made a conclusion from it regarding what it meant and who it was about and how it affected the person. Implications were addressed about understanding nature and functions of self-esteem, which was defined as, “feeling affection for oneself” (Brown et al., 2001, p. 616). This research intended to examine the nature and function of self-esteem in relation to self-esteem and how people evaluate themselves in certain domains. Three ways that self-esteem was used are also distinguished. In this research, experiments were conducted with participants to examine links between self-esteem, attribute importance, and self-evaluations. One hundred and three student participants at the University of Washington were selected for experiment one. One hundred and six student participants from the University of Washington were selected for experiment two. Sixty-four students were selected for experiment three. All were undergraduate and tested on a computer.

Through three experiments the students were tested to see how their cognitive ability was impaired or encouraged based on external factors having to do with self-esteem, ability, and importance of self. The results indicated that high self-esteem participants rated their integrative orientation more highly in important conditions than low self-esteem participants who rated the same. High self-esteem participants said, “if it's an important ability to have, I have it.” (Brown et al., 2001, p. 620-621). In experiment two the participants were given similar tasks but instead of manipulating importance, they manipulated ability. The high esteem participants did better

and said, "if I have the ability, it is an important ability to have" (Brown et al., 2001, p. 620-621). And in experiment three, a conclusion was gathered that highly self-esteemed people arranged their thoughts and perceptions to believe and promote positive feelings of self. Despite people attempting to manipulate and inflate it, the core of high self-esteem was self-promotion.

The implications of this study are that self-esteem and self-evaluations are two of the same kind. People with self-esteem liked the way they looked, they imbued themselves with positive qualities and they appreciated their talents. Applying self-esteem principles to the way people are attractive is closely related to self-esteem. People who liked themselves liked the way they looked and people who liked the way they looked, liked themselves. While people could not perceive their own attractiveness, they could perceive the attractiveness in others. This has implications for how lingerie consumption is studied, as how people modify their outward appearance with intimate apparel may bolster a greater more attractive sense of self. Also, surrounding oneself with attractive things or images or images that relate to them in an attractive way could help encourage self-esteem. Self-esteem also shifts with age which could also be related to lingerie/intimate research with hedonic consumption dwindling as consumers age.

While this research contributed to how participants see themselves and the way self-esteem principles relate to how an individual saw themselves some gaps remain, including the lack of application in body image could potentially render this information less likely to be considered seminal although it is substantial to the self-esteem role. Also, the participants surveyed were college undergraduate students in an academic setting. While confidence and self-esteem can be greater in some areas than others, this only proves self-esteem in an academic setting.

Lingerie in E-commerce and Implementation of 3D Virtual Technologies

E-Commerce is here to stay and with lingerie being the most purchased item online, the need to expand on consumer technologies and 3D virtualization within online communities is a hot topic. With lingerie consumption being considered hedonic and the hedonic nature of online shopping, developing both simultaneously could prove to be profitable (Ashworth et al., 2006).

Niche Markets in E-retailers

Ashworth et al., (2006) developed a study which sought to explore online success within lingerie e-retailers by utilizing multi-niche strategies, including the surveying of the developers of a fashion Cyberstore with five stores under it. The researchers acknowledged an absence in information within the e-lingerie marketplace, therefore saw a “cue for investigation” (Ashworth et al., 2006, p. 499). The study gave an in-depth overview of how an e-retailer can develop and sustain an e-business while it described the importance of electronic marketing, customization, and distinct product breadth. This study by Ashworth et al. (2006) had three research aims: 1) to explore ways in which a small lingerie e-retailer could successfully operate online, 2) to determine critical factors in success while also developing a structure of sustainability, and 3) to develop the framework for future businesses to refer to a successful and profitable e-retailer.

The study took place in the United Kingdom with the researchers looking at 30 transactional lingerie e-retailers within the UK which were found by internet search engines. Afterwards, the researchers held screening phone calls including interviews to determine the most suitable participants. From the screening process, one suitable retailer was selected, LadyBWear.

The study was of a qualitative design which included in-depth interviews and data analysis, as mentioned above. Findings were transcribed and thematic data emerged from

crystallization (Ashworth et al., 2006). Through data analysis, the researchers developed a framework for a lingerie e-retailer to be successful. Key affective themes were addressed which were linked to greater customer satisfaction with added value for customization online and competitive advantages for an ecommerce business (Ashworth et al., 2006).

Over a six-year period, LadyBWear was able to successfully develop five different e-retail websites that catered to multiple lingerie niche markets. This allowed the consumer to feel special as they felt their interests were being seen. Additionally, this helped LadyBWear build loyalty (Ashworth et al., 2006). Instead of investing in one site, LadyBWear invested in multiple smaller websites as it was a better opportunity to supply niche customers. LadyBWear characterized an extreme customer, words mentioned included: big, beautiful women and transgender women which allowed them to supply a significant global market (Ashworth et al., 2006). Twenty key factors emerged from the study on how to build success and sustainability. LadyBWear added additional consumer value by including customization such as women's clothing with specific reinforced fasteners for a transgender female audience. Customers were also able to forward their own designs and an in-house manufacturer would work with them for a bespoke design (Ashworth et al., 2006). These product offerings paired with high service levels led to customer satisfaction, confidence, trust, and loyalty. LadyBWear experienced repeat purchase levels over 80 percent (Ashworth et al., 2006). LadyBWear also sought out affiliations and reciprocal linking to reach more customers. Online communities and community sites provided significant website referrals and touched on the importance of viral marketing and engaging in an online audience (Ashworth et al., 2006). Along with marketing findings, the concept of web-weaving was explored. The web-weaving process was a strategic approach

which can spread risk throughout an entire portfolio of revenue streams therefore spreading the risk and targeting niches as mentioned previously (Ashworth et al., 2006).

Several conclusions could be made about the research discussed. The research aims were to explore a lingerie ecommerce store, produce a successful ecommerce strategy for future research, and to investigate critical success factors. While the study was able to address those questions with the statements made in the above paragraph, there was less of an emphasis on the consumer choice and motivations and more emphasis on the recreation of LadyBWears success. For future research in the web-weaving strategy, researchers could investigate the user experience side of what makes that business so successful. An emphasis was placed on online communities and niche markets in the findings, yet no direct research was conducted by the researchers to explore this avenue. Additional research in the consumer behavior category would prove to strengthen the study. This study can apply to the current study by relating consumer strategies on customization. Overall, the article provided great insight into a potential avenue of business for lingerie ecommerce. In future research, studies could build upon this successful framework and expand to more companies.

Hedonic Motivations and Product Visualization

Understanding hedonic motivations as they pertain to virtualizations in online shopping would provide a greater understanding in the current research. Kim and Forsythe (2007) stated hedonic motivations “reflect the enjoyment of the shopping process” (Kim & Forsythe, 2007, p. 502). Their research showed that those who purchase with intention of function are quick and to the point while hedonic shoppers are inclined to want entertainment and enjoyment from their shopping experience. They observed that, to encourage online shopping, some retailers used product virtualization technologies to enhance the experience and capture the audience that was

hesitant to purchase, but only as a hedonic shopper (Kim & Forsythe, 2007). Multimedia features employed included a variety of angles and virtual models.

Kim & Forsythe (2007) sought to evaluate online fashion apparel shopper's acceptance and implementation of product virtualization technologies. The researchers' aim was to answer whether consumers are facilitated more by hedonic motivations (3D rotation views) or functional motivations. Kim & Forsythe (2007) defined Hedonic systems as they pertain to 3D visualizations as:

A function of the degree to which the user experiences fun when using the system. To have a pleasurable experience, individuals often seek sensations on multiple sensory channels. Therefore, the hedonic content (e.g., interactive images) of product virtualization technologies is important in enhancing online shopping. (p.503)

The study was conducted with a focus group of 11 undergraduate students. An online survey was deployed to a randomly selected pool of participants from a database that was purchased from a survey company. The characteristics of the sample were U.S. residents, online shoppers, and over 19 years of age (Kim & Forsythe, 2007). Fifty two percent of participants were male and 48% of the participants were female. Eighty four percent of the participants had previously used 3D rotation views for online shopping and 58% had used virtual try-on, indicating that the participants were medium to heavy online apparel shoppers with product virtualization experience. (Kim & Forsythe, 2007)

An online survey was deployed in which four constructs (perceived entertainment value, perceived usefulness, intention, and value) were measured with a Likert-type scale ranging from one (strongly disagree) to seven (strongly agree). There were two versions of the survey, one that examined 3D rotation views and the other that explored virtual try-on. This online survey was

dispersed to the database that was purchased through a survey company. In addition to the online survey, the researchers employed a focus group interview. The focus group participants interacted with the 3D and virtual try-on models and participated in an interviewer led discussion.

Nine hundred and seventy-eight valid and complete questionnaires were returned from the online survey out of 3,000 survey requests. The Data was analyzed by structural equation modeling (SEM) to indicate the intention to use the technology again, revisit a site with the technologies, and purchase using these technologies. This data measurement was used on both surveys geared towards 3D view and virtual try-ons resulting in virtual Try-on being a greater hedonic system than 3D views. After reviewing the results from the SEM analysis, discriminant function analysis was deployed to detect dependent variables. The focus group interviews resulted in data that supported quantitative analysis as well.

The results indicated that hedonic motivations had a positive relationship with product virtualization technologies. The entertainment value of virtualization satisfied hedonic needs and was perceived as useful. Virtual-try on had a greater role as a hedonic system than 3D rotational views. The virtual-try on was a hedonic system that appealed to hedonic shopping tendencies that influenced hedonic motivations. There was value seen in both from the participants, but they did mention that the clothing looked too graphic and not like real clothing shown in a 3D rotational view (Kim & Forsythe, 2007). One participant was quoted as saying, “The way the clothing looks on the model didn’t really help in examining it or how it would look on me,” indicating there is a greater need for a more customizable option to the participants measurement and form (Kim & Forsythe, 2007, p. 510).

The implications of the study of Kim & Forsythe (2007) are that product virtualization technologies do provide hedonic benefits in the sense that it shows clothing details, it can help with fit, and it can also be fun and entertaining to the consumer. The adoption of both 3D views and virtual try-ons would benefit online sales as in the example of Eddie Bauer's Daypack, which showed a 25 percent increase when online advertising featured an interactive 3D view (Kim & Forsythe, 2007).

Virtual Community and Brand Loyalty

Through e-commerce, lingerie companies can build loyalty, trust, and satisfaction by investing in and promoting a virtual community. With the luxury sector supporting the growth of the lingerie market, latest trends and eco-friendly products are becoming readily available to consumers while the market grows increasingly competitive with a variety of options with little to no consumer motivation studies focusing on lingerie enthusiasts (Sanchez Torres & Arroyo-Cañada, 2017). Through analysis of virtual communities and their online shopping habits in the luxury lingerie industry, more understanding and growth can be achieved, and the consumer better represented.

Sanchez Torres & Arroyo-Cañada (2017)'s exploratory study sought to determine the loyalties of online purchases of lingerie customers within product quality and brand reputation. This study also addressed the online community of lingerie customers and how their reputation within them affects their sales. Trust and reputation in fashion ecommerce were primary subjects of interest. The setting of this study was in Barcelona, Spain where the researchers' collected data from Leonisa International, a company selling Lingerie for the past 20 years in Spain and Europe through their website (Sanchez Torres & Arroyo-Cañada, 2017). Ninety-five questionnaires from women in Spain and Europe were collected.

Surveys were dispersed through Leonisa International's marketing team who emailed their entire current customer base the survey. One hundred and thirteen questionnaires were returned and 95 were usable (completed clearly and fully). The data was analyzed with the empirical method of partial least squares (PLS). The reliability was calculated using Cronbach's values and the predictive ability was tested with a bootstrapping procedure. Constructs tested were trust, satisfaction, community influence, loyalty, innovative product, reputation, and quality product (Sanchez Torres & Arroyo-Cañada, 2017).

Several conclusions were made from this study. Of the two objectives, one being to determine "the importance of quality and product innovation in achieving a high level of customer satisfaction in the e-commerce lingerie fashion market and generating positive effects in terms of trust and loyalty" and the second, "whether the reputation acquired by a company related to interactions in the virtual community reinforces brand loyalty among its e-commerce customers," both were confirmed (Sanchez Torres & Arroyo-Cañada, 2017, p. 109). The relationship between quality and product produced trust. The company interaction within a virtual community also was integral to brand loyalty. Quality, innovation, and satisfaction related directly to brand constructs (trust, reputation, and virtual community). The findings confirmed that social media allows opportunities for brands to increase interactions through branded entertainment (Sanchez Torres & Arroyo-Cañada, 2017). Sanchez Torres & Arroyo-Cañada (2017)'s research provided crucial understanding of virtual communities and demonstrated how a greater influence could be placed on community and brand associations.

Summary of Literature Review

Within three distinct areas of research reviewed; it was clear that lingerie enthusiasts needed to be defined more accurately. Updated research was needed within the consumer behaviors segment, and the technology within 3D CAD and ecommerce was expanding rapidly towards the lingerie industry but more questions needed to be answered. In the literature review, the research indicated that bra shoppers can be segmented into sections (Tsarenko & Lo, 2017). The Enthusiasts are hedonic shoppers that have a vastly different purchasing profile than the utilitarian Pragmatist (Tsarenko & Lo, 2017). Lingerie was worn to express oneself, social standing, and social identity. It was used by women to define themselves and classify themselves as a “real woman” (Jantzen et al., 2006). It was both a symbol and tool of identity and works as a technology of self. When self-image and esteem was involved, the subjects with higher perceived self-image and high self-esteem purchased more sensual products and had a powerful sense of erotic value to those products (Hume & Mills, 2013). People modified their outward appearance with intimate apparel which bolsters a greater more attractive sense of self. Also, surrounding oneself with attractive things or images that relate to them in an attractive way can help encourage self-esteem (Yip et al., 2011). Self-esteem also shifted with age which can also relate to lingerie/intimate research with hedonic consumption dwindling as consumers aged (Tsarenko & Strizhakova, 2015). Within ecommerce: quality, innovation, and satisfaction are important characteristics that can be encouraged by reviews, social sharing, and an online community (Sanchez Torres & Arroyo-Cañada, 2017). Also, virtual product simulation was a hedonic consumption that lingerie users would like to know more about. Concluding, the information acquired was foundational and built a strong jumping-off point to continue and grow within this research.

Chapter 3 Methodology

Introduction

Even with an estimated worth of US\$30 billion (Hume & Mills, 2013), studies within the lingerie industry were exceedingly rare. There was a vast gap in consumer behavior studies geared towards lingerie enthusiasts and their online purchasing habits. It is important to understand this consumer group, as their purchase habits may differ from other groups. Thus, the research aim of this study was to define lingerie enthusiasts in terms of their psychographics and then determine their purchasing motivations by conducting qualitative in-depth interviews.

A qualitative approach is an observation of behavior where “the researcher seeks to establish the meaning of a phenomenon from the views of participants” (Creswell & Creswell, 2018, p. 17). By utilizing qualitative research methods, the researcher gained insight into lingerie enthusiasts' experiences and explored their individualized view on the subject (Merriam, 2009). Qualitative research allowed the researcher to understand the experiences and perceptions of a specific individual.

In the context of studying the consumer behaviors of lingerie enthusiasts, an in-depth semi-structured interview methodology was employed to gain insight into the participants' subjective experiences, feelings, and ideas (Merriam, 2009). Through this approach, interview questions were open-ended to encourage the lingerie enthusiasts to share in-depth views and opinions (Creswell & Creswell, 2018). Moreover, face-to-face Zoom interviews allowed the researcher to view and record expressions, mannerisms, pauses, and other subtleties which would be part of the lingerie enthusiasts' experiences (Creswell & Creswell, 2018) Furthermore, holding interviews through Zoom gave the participants the opportunity to be in an environment that they were comfortable in.

Lastly, this research aimed to determine lingerie enthusiasts' openness to 3D and virtual product visualization in their online purchasing process to better meet a growing need for 3D simulated garments. In addition, the study's goal was to examine the consumer motivations of seven lingerie enthusiasts and their online shopping habits, and how 3D lingerie product simulations influence their purchasing decision to meet individual needs.

Research Questions

This research was guided by the following research questions:

RQ1: In what ways do consumer motivations dictate a lingerie enthusiast online shopping habit?

RQ2: What is the relationship between lingerie enthusiasts' sense of self (esteem and efficacy) and consumer motivations?

RQ3: How do 3D lingerie product simulations relate to consumer motivations of lingerie enthusiasts?

Research Design

As discussed in Chapter 1, this thesis study followed a qualitative model. Qualitative Data is described as, “an approach for exploring and understanding the meaning individuals or groups ascribe to concerning a social or human problem” (Creswell & Creswell, 2018, p. 4). Qualitative research allowed the researcher, as the key instrument, to approach the subject with an exploratory purpose of data collection and analysis to better understand and meet the needs of the research subjects (Creswell & Creswell, 2018). Within the data analysis, the researcher worked inductively to code the data. The researcher categorized, built patterns, and compiled abstract information to deductively answer research questions and decipher themes (Creswell &

Creswell, 2018). A qualitative research design entailed an interpretive study whose purpose is to “understand how people make sense of their lives and their experiences” while also uncovering and interpreting the meaning behind it (Merriam, 2009, p. 23). Data analysis in a qualitative research method involves identifying recurring themes and ideas and developing interpretations based on the researcher’s understanding of the participants' interview responses (Merriam, 2009).

Qualitative research can be conducted in multiple ways including observation of behaviors, interviews, document examination, audiovisuals, and digital media (Creswell & Creswell, 2018). Oftentimes, in qualitative research, data is collected in more than one way. Specifically, this thesis study employed one-on-one interviews.

The one-on-one interviews entailed the researcher and subject meetings over Zoom. The researcher recorded each session to later transcribe. In each interview, the researcher used a predetermined open-ended semi-structured discussion guide which allowed the researcher to ask direct questions while allowing room for the interviewee to expand on questions and ideas as they came into conversation. This approach allowed the researcher and subject privacy to elicit participant views, stories, and opinions (Creswell & Creswell, 2018). In addition, the researcher identified as an expert in the lingerie enthusiast field. Through research, participation in online lingerie communities, and a similar hedonic shopping value, the researcher self-identified as a lingerie enthusiast. This encouraged a welcoming environment for the participants to have open honest conversations. As Merriam (2009) discussed, researchers who are part of the group being researched can facilitate an open discussion without power dynamics and the potential for the respondents to fear misrepresentation (Merriam, 2009).

After data was fully collected and transcribed, categorization of the data began. Categorization involves the researcher labeling and classifying the units of data (Saldana &

Leavy, 2011). This was done intuitively and with respect to the organization of the discussion guide. The researcher reviewed the categorized data and themes began to emerge among the subject's responses. The researcher went further after categorization into open coding to gain more insight within those predetermined categories. Open coding is the "process of making notations next to bits of data that strike you as potentially relevant or important to your study" (Merriam, 2009, p. 178). Through open coding, the researcher is open to all possibilities and can narrow down into more distinct categories (Merriam, 2009). The last form of data analysis the researcher used was analytical coding where the researcher was able to group different responses into a category based on interpretation (Merriam, 2009). From the categorized data, the researcher was able to group themes and answer the research questions in relation to lingerie enthusiasts.

Setting

This study took place at a university in the southeastern United States. Due to Covid-19 restrictions, one-on-one interviews were held virtually through Zoom. While this was unexpected, it allowed diversity in sampling and expanding on research within the online community. The researcher posted the hedonic screening survey (Appendix B) on Facebook groups targeting lingerie enthusiasts. As a result, seven participants were selected to meet the requirements of female identifying and residing in the United States.

Participants

The sample procedure used by the researcher was purposive sampling. Merriam (2009, p. 77) states that purposive sampling is, "based on the assumption that the investigator wants to discover, understand, and gain insight and therefore must select a sample from which the most can be learned". For this thesis study, identifying and selecting lingerie enthusiasts were

necessary as the interviewees should be representative of the group the study is based upon. The prescreening questionnaire was distributed through posts on lingerie Facebook groups as well as word of mouth in the lingerie community. The questionnaire was distributed by Qualtrics. Twenty-one completed prescreening questionnaires were returned to the researcher, seven of which answered ‘Yes’ to all the questions on the questionnaire developed by Tsarenko and Lo (2017) (Appendix B) ranking hedonic lingerie consumption to indicate Enthusiast classification. Geographically, the participants ranged from the West, Northwest, and Southeastern parts of the United States. Out of the seven participants, five of the participants were Caucasian, one Latina, and one African American. Participants' ages ranged from 27 to 37. All participants self-identified as a “lingerie enthusiast,” female, and residents of the United States. In the table below, participants are listed with names changed to preserve anonymity.

Name	Age	USA Region	Ethnicity
Melissa	30	Northwest	Caucasian
Caitlyn	32	Southeast	Caucasian
Tessa	27	Southeast	Caucasian
Maureen	34	Northeast	African American
Krissy	33	Southwest	Caucasian
Jean	29	Southeast	Caucasian
Korin	37	West	Latina

Measurement Instruments

Prescreening Questionnaire

The researcher initially used a prescreening questionnaire through Qualtrics based on the findings of Tsarenko and Lo (2017) (Appendix B) ranking hedonic lingerie consumption to indicate Enthusiast classification. The assessment consists of four questions. If “Yes' ' answers were selected, the hedonic consumption pertaining to lingerie usage and purchase ranked high in the Lingerie Enthusiast category established by Tsarenko and Lo, (2017). The assessment included broad consent and verification of their US residence as well as an area for the participant to put in contact information and location. Twenty-one results were gathered by the researcher and sorted by those who answered “Yes" to all questions and those who did not. Out of the 21 surveys, the seven which responded with “Yes" to all questions were then selected.

Interview with Semi-Structured Discussion Guide

The researcher interviewed each Lingerie Enthusiast with the aid of the Semi-Structured Discussion Guide that was developed prior to the interview. The discussion guide included 19 questions with additional probes included for open discussion. The questions were open ended to lead the interviewee into a more expansive dialogue (Appendix C). Several questions are also considered “Devil’s Advocate” questions to challenge the participant to answer in opposition or explain a situation. Probes were interjected as needed.

3D Interaction and Demonstration

When developing the semi-structured discussion guide, the researcher included a multi-view image of a lingerie set designed in CLO3D (Appendix D) that corresponded with questions relating to ecommerce and 3D design. The lingerie set and avatar were sized to the researcher’s exact measurements. This allowed the participants to see how the software can accurately

distribute mass on the avatar form, therefore providing a more precise representation of body and fit rather than an idealized version.

Validity and Reliability

The validity and reliability in both the prescreening questionnaire and the semi-structured discussion guide are re-creatable and dependable due to the information which they were built upon, and the transcripts and guides given. To test both validity and reliability, both the prescreening and discussion guide was evaluated by the thesis committee chairs. In recreating the study, challenges may arise in replicating the open-ended conversation that was facilitated by the discussion guide. The coding was confirmed by the thesis committee chairs.

Procedure

The data were collected through an initial survey and interview. The prescreening hedonic questionnaire was posted on social media outlets and solicited to known Lingerie Enthusiast in the online community. The responses were submitted to a Southeastern Universities secured Qualtrics site. The interviews were conducted one-on-one with the researcher in a private room through Zoom and the participant at a location of their choice that was geographically convenient to them.

Data Analysis

As discussed in the research design, a qualitative research design was utilized to explore the consumer behaviors of lingerie enthusiasts. A qualitative research design allowed the researcher to explore the phenomena within depth one-on-one interviews with participants who identified as lingerie enthusiasts. In conjunction with the IRB, the participants were de-identified. This process included changing their names to pseudonyms to protect their anonymity and recording their location by region (Table 1.1). A semi-structured discussion guide was

followed with options for participants to include any information they deemed relevant (Appendix C). The interviews were audio and video recorded through a secured Zoom account with the participants' consent and lasted 30 minutes to one hour and 20 minutes long. Zoom interviews allowed a larger reach of participants that without video conferencing would not have been possible.

After the interviews were concluded, the researcher transcribed the interviews verbatim, including but not limited to pauses, contemplative sighs, laughs, and inflections in voice. Through the categorization process as explained in Spiggle (2019), the data were classified and labeled based on research questions. This happened intuitively because of the structure of the semi-structure discussion guide. After categorizing the data, open coding was utilized to analyze bits of data to ensure recurring themes within the research questions were identified. The open coding began with notes and key words in the margins of categorized data. After which the data were narrowed down to key words and findings that resulted in the grouping of ideas that went together. Analytical coding, defined as "coding that comes from interpretation and reflection on meaning" was the last step which developed the resulting themes used to interpret the data (Merriam, 2009, p. 180).

Chapter 4 Results

Summary

This chapter discusses the results of the qualitative methodology discussed in the previous chapter. The semi-structured interview guide (Appendix C) was organized into three sections. Each section had questions geared towards the research questions. Those objectives were:

RQ1: In what ways do consumer motivations dictate a lingerie enthusiast's online shopping habit?

RQ2: What is the relationship between lingerie enthusiasts' sense of self (esteem and efficacy) and consumer motivations?

RQ3: How do 3D lingerie product simulations relate to consumer motivations of lingerie enthusiasts?

With the nature of the discussion guide, the data results were already categorized into three categories. From there, the researcher further sorted the data into themes within these categories. Six themes were assessed after data saturation.

Within the subject matters of consumer motivations and sense of self, four themes emerged from this section. (Theme One) Power of the Perfect Pair of Panties, (Theme Two) The Typical Atypical Body, (Theme Three) The Queens of Lingerie, and (Theme Four) Luxury is a click away... or is it?

Power of the Perfect Pair of Panties

Within the qualitative analysis of data, the overwhelming theme that was made prevalent was the power of the perfect pair of panties. All seven of the participants began the interview telling the researcher their favorite piece of lingerie, and from there recounted why shopping for lingerie was enjoyable. They told stories about how it empowered them, helped them admire themselves, and showed them how beautiful their bodies could be. From the responses, it became clear the pivotal role lingerie played in their formative years as Caitlyn recounted:

Caitlyn: "...it makes me feel sexy. It makes me feel empowered. It makes me feel how I felt when I was 10 years old, going through Playboys and looking at these women and thinking, I want to feel powerful like them, and I want to be sexy when I grow up. (Laughs)"

Others found lingerie to be a catalyst for self-love and admiration on their self-esteem journey. For instance, Tessa found herself beginning her lingerie journey at 19 when she questioned her relationship with her body:

Tessa: "I grew up with the squat test (as my mom called it) like, very modest! Very Southern Baptist, very reserved and then I go to college and ...I hate that, and I hate my body... And it's like the idea of hiding... It almost became a shameful thing where it was like... Well, why do I have to hide? Like, what's so different for me? [Am I] not pretty enough to be seen and to be existing? ... A big moment of me kind of changing the view of my body and my body shape and type [was through] lingerie. [Lingerie] definitely played a part in that because it was a reason to celebrate and decorate... Me just standing in a mirror naked, there's no purpose, there's no reason for me to just stop and stare at myself. But in lingerie, I'm like, Oh! But I feel pretty now, and I like to look at myself again."

While Tessa explained how she felt restricted because of family and religion, Krissy talked about how she was just super self-conscious growing up and electively hid her own body until she had a safe and secure environment:

Krissy: "But for me, the journey from being [a] super self-conscious teenager and not wanting anyone to see my body to being in a roller derby game where I was totally comfortable in like, wearing pasties and a corset... it was a journey being able to feel comfortable in lingerie in a space that was obviously safe and other people were also doing that... Roller derby in and of itself makes me feel really good and powerful... But being able to do that in lingerie and in clothing that I find so important was just like an extra boost of, [the idea that] people can look powerful [in lingerie]."

Lingerie gave the enthusiasts a way to celebrate themselves without being prompted. Aesthetically, the participants decorated their bodies with silks and lace while others used corsetry and structure to "architect their curves" as Caitlyn put it. Jean shared how she reclaimed control in a situation where she felt displaced:

Jean: "So during my first school interview, I wore a corset and that was super empowering to me because it was a time where I didn't feel in control. Because you're in front of all these people that you've heard of... You are one of a million interviewees... who they don't give a fuck about and so you're just like, man, how do I gain some control of this situation of myself? And that for me was corsetry. Sitting a certain way and like holding yourself a certain way transformed the whole day for me because I didn't feel like I was this wallflower, you know? And people notice those details... like one of the interviewers was very observant of it. He's like, 'Are you wearing a corset?' I was like, 'Yeah' and so there's almost a sense of respect when people do observe it, they're just like... "Oh my God, you're wearing a corset, like, how are you

doing it?" So that's been a consistent experience for me. If I'm feeling out of control or I want to leave a certain impression, I always wear a corset".

Lingerie also played a part in the enthusiasts' wellness or selfcare. Wearing and purchasing lingerie was seen as a celebration of self, not meant to be shared with the public unless for work or a special event. The participants described scenarios of doing laundry in lingerie, relaxing at home in lingerie, wearing lingerie simply because it looked good and felt good, and purchasing lingerie to pamper themselves. Caitlyn talked about living a fantasy:

Caitlyn: "It makes me feel the most... sensual and fancy side of myself to be hanging out in a slip or in a nice robe? With little pom poms on my heels. It's just kind of like living the fantasy..."

While Caitlyn enjoyed relaxing in lingerie and fantasizing about how luxurious she feels, Tessa talked about her excitement in doing everyday chores in her lingerie and how it was a whole affair:

Tessa: "... Once you're in it and it's like, I don't even want to go out in clothes!! I'd rather just wear this because I feel like I look so much better in this. And you're like, I'm going to do laundry and I'm going to be sitting in my new [lingerie] set having a good ol' time! Let me get the heels out. We'll have a whole day... It's a whole affair! Then the Lord forbid, my husband gets a thousand texts where I'm just like, 'Look at this angle of it!'"

Tessa got so excited about the way she looked; she even sent her husband photos. Maureen on the other hand spoke about how lingerie at her home was an everyday affair and her friends were shocked by her lounge wear:

Maureen: "The latest that I treated myself to was a little black baby doll to wear around the house. That's actually my favorite thing to wear around the house... And it was so funny, like

a friend of mine came over and she was just like, “Girl, this is just what you do all day??” I’m like, “Yeah, I don't even wear this for someone else...”

Much like the sentiments above which all concluded that lingerie brought a sense of self care and appreciation, Krissy went into greater detail about how lingerie led to a feeling of well-being:

Krissy: “I'm a very aesthetic person, so I enjoy looking at things that are pleasing to the eye, and then also, if I get to put them on my body, like ... that translates into kind of a feeling of well-being in a way”

Additionally, as the theme suggests, lingerie gave the participants a sense of empowerment, confidence, confirmation, and transformation. The concept of power and empowerment was a central topic when the Enthusiasts opened up about their lingerie journey. Describing how lingerie makes them more present in the room, they felt as if they had a prize under their black dress and are enhanced by the lingerie. Caitlyn talked about how lingerie made her more present:

Caitlyn: “You're sticking your tits out... You're not shrinking back. You're owning it.”

While Caitlyn talked about owning it, Jean described the transformation she subconsciously undergoes when wearing lingerie:

Jean: “You don't have to have anyone's approval for it. It's whatever the hell you want it to be. So, I think that's what's empowering about it and transforming. Another subconscious thing is if you find something that really makes you feel a certain way... It's very, very confirming to see someone else design something that was like, “You ARE this beautiful.”

Krissy had similar sentiments to Jean, and described the empowering feeling she got when she found a set that fits her perfectly:

Krissy: "... So when you find that lingerie that fits you so perfectly, it feels empowering. It feels like a really easy avenue to admire yourself. In a world where you're encouraged not to do that, you're encouraged to go buy more to feel good about yourself. But when you do find lingerie, it's just like, Nope, this is perfect. It was made for me, and I feel great."

Overall, the participants found lingerie a vessel for strength and self-admiration. Lingerie gave the participants pleasure and encouraged them to appreciate their bodies when in the past they had struggled seeing its worth and their own true worth. In some circumstances lingerie provided the wearers with courage, while other times it let them live in a silk pom-pom fantasy.

The Typical Atypical Body

In describing their bodies, the words atypical, plus sized, larger, different, not symmetrical, bigger, curvy, and bony were all used. In a group of seven women, 100% of the participants described their bodies as a difficult fit. Melissa and Caitlyn talked about how their bodies are different from most:

Melissa: "...Just because I don't have the typical body type."

Caitlyn: "I am the size of the average American woman, but short. I'm a size 16 to 18 and so with clothing manufacturers, it seems like I can't fit into straight sizes. But the plus sizes are kind of big too... I don't feel like a lot of them cater to very short and very curvy people with a bigger than 10-inch difference between their bust, waist, and hips."

While Caitlyn and Melissa discussed their trouble with being plus sized, Tessa described how important three-way sizing was:

Tessa: “... On the top, I've always been a [size] small and... my hips and waist have always been more on the large side... Finding something that meets in the middle, especially if it's a one piece, doesn't exist. “

In a different vein, Korin had the opposite problem from the other participants:

Korin: “For a top, I'm a 32C, so that's kind of a rare size... I'm very small. My torso is very small. So, for me, that was really difficult because everything starts at 34... Everything was too big, always. “

But the most powerful story came from the participant, Maureen. Maureen is six foot four inches tall with an HH to J cup size. While getting custom clothing is normal for her, she shared a story of finally getting measured for a bra and the power of being celebrated at whatever size you are:

Maureen: “I just didn't really feel like I looked good in lingerie. It was just always such a struggle to find anything (you know) nothing ever really fit. I was on my way to Atlanta with my mom, and we stopped at the ... Hanes outlet and I was talking to a sales associate there, and she did a bra fitting for me, and she was like, ‘You know, actually, you need to go to Libby Ray’ and I had heard the show, Double Divas, but like I didn't realize like where (you know) their shop was. And so, it was right outside of Atlanta... My mom and I went, and it was great! I got a bra fitting and had the sweetest woman in the boutique helping me out. And she made me feel sooooo good about myself [with] the things that she was picking out... She was telling me about my bra size and how to fluctuate from brand to brand. And she was saying that I would be like a [size] HH and I or K and it was funny because when I was taking my bra off, she said something to the effect of, “Oh, you have perky I's!” And it was funny!! It was just the perfect timing that just made me feel good because I always felt like I had these really saggy sloppy breasts. But no,

they're just a lot bigger than other people's [breast]. So yeah, finally getting to the right size and feeling so much better in a bra... Yeah, it was great. ``

Traveling for specialty bras was seen as a privilege and not every person has the time or money to either order custom garments or head to a big city. Krissy explained:

Krissy: "I definitely have some privilege in the sense that I live in Southern California, and so L.A. is not very far away, and L.A. is where [I have access to] that store that does literally start with D Cups... "

Bra size aside, there are asymmetric breasts and different breast shapes to take into consideration. One of the participants spoke about her difficulty finding bras that fit her breast shape. Breasts come in a variety of shapes and according to Jean there are limited options:

Jean: "I would say most lingerie caters to an even breast... and there's a lot of different breast shapes out there. Mine is more bottom heavy. So, it works for a balconette bra, but like, it's hard for me to find a well fitted full coverage bra because they assume that you have all the weight in one place and that's pretty much catering to a younger audience... I don't know many older women who have [the weight distributed] all in one place. So that can be difficult and limiting."

Tessa recounted a conversation with her husband about asymmetry and how it affected so many women, yet had never been addressed in the lingerie industry:

Tessa: "...My husband asked me the other day and I didn't have an answer for him... He was like, every woman has different boob sizes. (Like, my left boob is bigger than my right) and he's like, "Why don't you have mixed match bras that you can like, cut in half and you can like, clip together the size you need for each side?" And I was like, I don't know... because that's convenient and easy? and I guess we don't like that?... There are so many functional things that

we've skipped to look pretty and then it leaves people feeling like, [their] body doesn't fit into this archetype. And then it automatically affects confidence. [If we] mesh a little bit better, we'd be perfect!!"

Throughout conversations with the group of participants, the theme of “my body doesn’t fit into this archetype,” as Tessa mentioned above, was prevalent. The participants felt their bodies were abnormal or different and it affected how they saw themselves. Lastly, the options available to large breasted women were lacking. Words like matronly, grandma, and not functional were used to describe available options:

Maureen: “...You know, once I do find something in my size, like sometimes things are (like, you know) very maternal or like, a lot of times when you get up to a size that is that big, everything is just like a bra that looks like it's almost a turtleneck... “

Maureen described the matronly qualities for a large-busted bra, while Melissa talked about how frumpy bras begin looking:

Melissa: “...A lot of times it's like bigger girls, it gets frumpy. And like, just because I have bigger boobs doesn't mean I want straps this thick.”

Overall, the participants loved adorning their bodies with lingerie. This encouraged love and self-expression, although the fit process and designs available to them left them feeling as if their bodies were a problem. Having a 32-inch rib cage led one participant to say she was smaller than normal, having a greater than ten-inch difference between hip, waist, and bust left one participant saying clothing was not made for her. The idea that we make our bodies fit in lingerie available rather than lingerie being made to fit on the bodies we have, came to the surface of this data analysis. The participants had negative experiences with sizing which affected how they viewed their body shapes after experiencing what was offered mainstream.

The Queens of Lingerie

A prevalent part of this theme were the drag queens, the sex workers, the dominatrix, and the lingerie influencers. The Queens of Lingerie wore their sexuality and fierce presence for all to see. From this brazen celebratory act of self-love and acceptance, the enthusiasts found their inspiration and influence from those identified above. The individuals most willing to be public and celebrate themselves in intimate wear gave the enthusiasts the courage and confidence to do the same. Within this context, these figures captivated the participants' attention. The catalyst delivering the “Queens of Lingerie” to the enthusiasts was social media. When asked where they find new lingerie brands to try, the importance of social media was undeniable as explained below:

Krissy: “I find most of my stuff on social media by following the people that I already like. Like that woman who does silk scarves. She's always promoting different lingerie companies that she wears and also The Lingerie Addict, the person who runs it, Cora. I find a lot of things in both of them... But just kind of like the more independent lingerie companies you follow (algorithmic things or whatever) you just kind of like, find them... So, it's definitely all pretty much all through social media stuff.”

While Krissy contributed her discovery of latest brands from social media algorithms, Korin described specifically who she follows on social media, dubbed “the queens of lingerie”:

Korin: “I follow so many burlesque dancers and strippers like everybody... The queens of lingerie. So, it's just kind of like, you see so much like all the time. I mean, on a daily basis, I feel like I'm seeing so much new stuff...”

Unlike Korin, Maureen caught live bra expert videos through her social media:

Maureen: “I follow like Libby, the owners of Libby Ray. And I follow Curvy Kate. They have a Bra expert who does live videos every once in a while, if I can like, I'll catch some of that. ...I probably follow drag queens more than anything... I'll see something on a drag queen, and I'm like, Ooh, I want to find something like that!!”

In Maureen’s case, she used social media for informational purposes as well as inspiration whereas Korin primarily followed Dominatrix and Sex Workers on her Twitter:

Korin: “My Twitter is primarily nothing but sex workers and DOMS and so there's a lot of a lot of lingerie information happening kind of in those feeds and people suggesting things “

Facebook, Twitter, Blogs, Newsletters, and Instagram were all avenues where the Enthusiasts sought out new and interesting lingerie brands. While scrolling through Instagram, Melissa, Korin, and Maureen spoke about seeing advertisements:

Melissa: “... I'll get like random ads and I'm like, Oh, that's pretty. I'm like, Ooh, sparkles.”

Maureen: “Every once in a while, an ad will pop up and that's how I'll see a new brand.”

Korin: “I get a lot of sponsored ads and targeted marketing and stuff like that, and sometimes it's good.”

The primary motivation for the lingerie enthusiasts to follow and subscribe was the sense of community, diversity, representation, and reflection of self within the content. The community aspect allowed the participants to celebrate their bodies with like-minded individuals while also feeling safe and accepted. With lingerie becoming more inclusive and more representation of different bodies and ethnicities, the participants found themselves drawn to accounts that reflected their image. Jean, Krissy, Caitlyn, and Korin told us a little more about why they followed certain accounts:

Jean: "community surrounding it and body shape... I definitely like The Lingerie Addict, you know? Like she's pretty good. She can be a little too opinionated sometimes, but she, you know, has a collective community kind of watching her and like, yeah, she keeps them accountable, they keep her accountable, so it feels less one sided. Whereas you can go to a curvy blog like Blossom and Buttercups (I don't know if you follow her) in the UK and it is all about, you know, "Like your body and be powerful!!" and like the vintage vibe and everything... And so, it's very emotion focused, you know which you need both, you know? I [also] love following curvy models..."

Jean commented on the importance of community within the lingerie enthusiast environment, she also touched on how the influencers interacted with the community and the benefits they provide. Krissy on the other hand spoke about representation within the community and the importance of seeing something a little different:

Krissy: "The first thing that tends to catch... It's either the representation, so if it's like, I'm going through it and the first thing I see is a non-normative body, I'll be like, Okay... I'll go look more into it. But often when I start following a new company, it's because they're doing something that's a little bit different. Whether that's just like design or detail or style or color or anything like that... Definitely if something is a little bit different."

While Krissy liked seeing non normative bodies and differences in model, Caitlyn liked to see her body type represented:

Caitlyn: "100 percent body type. If I see my body represented, or if I see pictures that aren't overly edited, where you see skin texture or rolls or anything like that, it immediately makes me interested because I'm like, "Maybe that'll look good on me."

Much like Caitlyn, Korin also appreciated representation that mirrored herself:

Korin: "I do follow a lot of accounts that I feel like are kind of similar looking.... but also, just a huge variety.... You know, the pale girl with dark hair... "

Concluding, the participants felt as if the representation in the lingerie community was shifting and the taboo behind lingerie consumption was next to nonexistent. They found community with those who embraced their sexuality, and, in return, it helped them embrace theirs as well.

Luxury is a Click Away... or is it?

The internet gives access to a variety of purchasing options. A consumer can choose to purchase from bespoke lingerie houses in Australia or have a corset drafted custom for them in Ukraine. In theory, sizing is not an issue when customization is introduced. However, the real question is, is customization attainable for the majority? Earlier in the "Typical Atypical Body" section, the researcher noted that many of the lingerie enthusiasts had issues with fit. Whether it was considered too small, too big, poor underwire drafting, not long enough, or too long, there were a plethora of fit issues that, in the enthusiasts' minds, came back to issues with their body. Mass produced lingerie from places like Victoria Secret or department stores left a bad taste in the participants' mouths with inadequate quality and bad fit, yet many of the higher end companies were not affordable. Korin talked about her dreams of one day being able to afford her favorite lingerie while Krissy explained the importance of splurging on those higher end companies:

Korin: "I feel like I can't afford my favorite brands! ...We have our couture dream of what we would love to be able to purchase and then what is actually affordable and reasonable."

Krissy: "...People will ask me pretty often, "I love that... Where did you get it?" and I'll tell them, and they'll ask me how much it was... And then when I tell them that they're like, "Oh..what? I couldn't" and "Can I get that on Amazon"... It's taken me a long time to understand how long [it takes for] various things to be produced... I do wish that people would think about why things are cheap and why they can get it so quickly, and why they have to buy so much... Often, I buy really expensive stuff, but I buy it once or twice a year and it lasts me for years because I've paid that price point and it's come from really high-quality people. Unfortunately (...or fortunately, depending on what you look at it like) the way that our world is set up, anything that comes out, somebody is going to copy it in a cheaper way. So, there's a lingerie piece, [it is] one of those very iconic robes with the ostrich feathers... I think the one I want is like \$400 and one of my friends was like, oh yeah, I saw that on Amazon for like [X amount] I know you're going to get it and it's going to fall apart immediately. But the original one will last me my whole life, so I'm willing to pay for that. That's worth it to me. And also, I'm willing to spend some money on luxury. Lingerie is an extravagance that is a luxury. And I'm not willing to predicate my luxury by underpaying someone along the production line. So, I wish people understood that a little bit more."

Opposing what Krissy said, Caitlyn spoke about how she simply does not have the money for it. She had to shop fast fashion and felt like her needs are not met because of her price point:

Caitlyn: "If I had the budget, I'd be in Agent Provocateur or La Perla just dropping all the money or even Hanky-Panky, you know? But I don't. So, I'm on Amazon, Yandy, Frederick's of Hollywood, Shein. Just fast fashion, the cheapest I can find..." "I would love to be in a

Catherine D'Lish feather duster and walk around in a Mr. Pearl corset, if I could afford it... So, I don't think what I want is accessible at my price range. Unless you are into DIY... "

The final thought comes from Tessa who wondered why functional intimate wear at an affordable price does not exist:

Tessa: " *If I want to find something that's super sexy but is a nursing bra that I'm able to wear as a mom who's going to be like, "Oh, I want to go out to dinner, but I might have to pull this out and feed my child" ... there's not the same options. Function and appearance have kind of gone separate paths when it comes to any intimate wear. We all love the high waisted granny panties, but there's no pretty ones, you know? You get Hanes brand and you've got the comfort... but you're like, I would DIE if anyone saw me in this. There's definitely a purpose in them. Also, if I walk into some boutique, it's just basically like a sex shop. I just get that energy... It's like, it's either sexy and its sex focused, or it's geared towards everyday use. So, I think there's definitely a disconnect, but like there are some places that bridge [the gap], but you have to hunt for them, and you have to find those places and they are small businesses. So, they're not in my price range because they don't have the ability to make it cheaper or it's because it is a specialty item and now [the price has] gone up again."*

To quote Krissy, "*Lingerie is an extravagance that is a luxury*" and unfortunately lingerie was not a luxury that all could afford but the participants made do with what they had. While some budgeted and purchased once or twice a year, others shopped fast fashion. Price restrictions affected those who desired functional lingerie while others simply just made do.

Within the subject matter of 3D product simulations and Ecommerce, two additional themes emerged from this section of questions. (Theme Five) Your Virtual Tailor and (Theme Six) A Digital Disturbance.

Your Virtual Tailor

The exposure to 3D apparel visualizations/CLO3D and customizations gave the participants a look into customization options. As mentioned in previous themes, the group of enthusiasts all found themselves to be a difficult fit. When a participant put on an ill-fitting lingerie piece, they claimed it made them feel bad about themselves and were excited that a 3D prototype of their garment could potentially curb that feeling of disappointment. Tessa described below what this would mean to her as a customer:

Tessa: "I actually think it's wonderful. So, the idea that you could just see it [lingerie set on their body/measurements] ... it would be super changing for women. Plus, it would build your confidence. You're not getting something thrown on you that doesn't fit you... So, when you do get your final piece... you're not going to look at yourself and be like, " Ew I feel gross. "'"

In addition to sizing options, there was an inclusive aspect to it. Those who are disabled or have a difficult fit could have access to different clothing options that they thought were not available to them in the past. Krissy shared her thoughts on this:

Krissy: "...If you had any kind of disability where your shape is different from the average or normative body... if you were able to do this, it would also make it so much easier..."

As the participants had mentioned, purchasing online was a leap of faith and the option to have a fitted garment to their specifications would add value to their purchasing experience. The group inferred that a service that allowed them 3D visualizations of a garment that included their specific measurements would feel like a high-end luxury item. The added value would reduce the risk they felt so they would be inclined to pay more. Moreover, if the program/fit worked for them, they would be a customer for life. Tessa and Maureen discussed this sentiment in greater detail below:

Tessa: "...You think about how much money goes into lingerie and if you pay twenty dollars more for it, and you know that it's going to actually fit you versus having to buy six of the same size or the same thing to figure out which one's the right one... like bra measurements are a mystery to most people. I barely understand them..."

Maureen: "...Yeah. If I use the software and it works... I would definitely be a customer for life."

Concluding, the participants who struggled with fit in the past saw value in the potential for a 3D mockup and custom lingerie experience. Having had negative fit and try-on experiences in the past, the enthusiasts saw value in a program like this and were open to spending more money to save the emotional turmoil that the try on process can induce.

Digital Disturbance

While some of the participants loved the CLO3D and 3D visualizations as mentioned in the previous theme, there were several participants who felt more hesitant towards the program. 3D visualizations were described as detached, weird, idealistic, and distracting. There was skepticism over the hardness of the avatar and it not portraying fat or the squish of a human.

Tessa reacted:

Tessa: "... it's so weird, like seeing it like, almost like a video game where it's like, yeah, so detached..."

While Tessa compared the avatar to a detached video game, Korin was not offended by the body but instead thought the avatar's face was distracting:

Korin: "Hmm.... It's a little weird. Yeah... it's a little weird. The body not so much, but the face and the head... but if that's off, then it's kind of just like a mannequin, you know? But

yeah, it is a little odd seeing like, the head and the face, like everything else, seems pretty like, OK, yeah, it just looks like a cropped photo of a person's body, right? BUT as soon as the head is in the picture, it's like, "what?" It's distracting, ultimately..."

There were also concerns over individual body features, like nipple placement on breast and certain factors that the software could not dictate. While the CLO3D lingerie details were easy to point out, it did not account for individual features. Korin explained more:

Korin: "“I mean, I can tell it's a balconette and high waisted, but I can't tell if my nipple is going to be showing”

The last sentiment came from Jean. Jean felt that there was something to be said about an ill-fitting bra. Perhaps getting a bra two sizes too small gave you the cleavage you desired. By having an exact fit and seeing yourself in the set before purchasing it, it could kill the romance and fantasy that goes along with lingerie. She went into more detail below:

Jean: "...Lingerie is also kind of a fantasy and there can be a point to something being too small... Sure, correct fit is one thing but if going 2 cup sizes smaller gives you the overflow that you actually envision for yourself, you'll go 2 sizes smaller. So, I don't know how the correct fit merges with your personal idealization of yourself.... There is a lot of romance in lingerie, not just with whoever it is for, but like with you. To fantasize yourself as something. No matter who you're buying it for or with or on what occasion."

Concluding, CLO3D and 3D simulations can be a polarizing topic in lingerie. On one side, there are those who have struggled with fit their whole life who can appreciate the capabilities and on the other side, those who cannot see past the avatar and preferred seeing garments on themselves or the softness of a human.

Chapter 5 Conclusion, Implications, and Future Research

Introduction

As mentioned in previous chapters, lingerie is one of the most successful fashion products purchased online and even so, research is lacking in the consumer motivations and behaviors of lingerie consumers (Ashworth et al., 2006). E-Commerce is rapidly expanding and with that, a need for apparel technologies (Jiang et al., 2019). There is also room for growth in customization, inclusive sizing, and options which are not currently available to all. The purpose of this qualitative study was to examine the consumer motivations of seven lingerie enthusiasts, how lingerie relates to their self-image, their online shopping habits, and how 3D product simulations could influence their purchasing decision. Through acquired data, the researcher intended to define who lingerie enthusiasts are, to discover how intimate apparel is interconnected with a sense of self, and the best way to reach/market to lingerie consumers. The following research questions guided this research: (1) In what way do consumer motivations dictate a lingerie enthusiast's online shopping habit? (2) What is the relationship between lingerie enthusiasts' sense of self (esteem and efficacy) and consumer motivations? (3) How do 3D lingerie product simulations relate to consumer motivations of lingerie enthusiasts?

To address these research questions, in-depth interviews were conducted with seven lingerie enthusiasts. The research participant selection/indication of lingerie enthusiast's categorization was based on a pre-screening questionnaire that ranked hedonic shopping motivations as they pertained to lingerie. It was necessary to interview participants who were representatives of the current phenomena to gain accurate and rich data that would help to further define the group. Through transcription and data analysis, six major themes emerged.

Power of the Perfect Pair of Panties

Lingerie proved to play a pivotal role in the lingerie enthusiasts' sense of wellbeing. It gave the enthusiasts an opportunity to admire and celebrate their bodies when in the past they struggled with oppressive households or poor self-esteem. Brown et al (2016) spoke on the power of surrounding yourself with beautiful things. An implication in the Brown et al (2016) study based on self-esteem principles stated that surrounding oneself with attractive things or images that relate to them in an attractive way can help encourage self-esteem. Findings from the current study supported this, as the enthusiasts mentioned simply putting beautiful lingerie on their bodies made them feel beautiful. Several Enthusiasts compared it to accessorizing or decorating their bodies, appreciating their natural curves, or architecting the curves they want to have. With lingerie, they were able to highlight the things they loved about themselves and edit the things they did not.

Lingerie empowered each of the enthusiasts in diverse ways. From the participant data, it was gathered that empowerment can come in the form of control in a high-pressure environment, empowerment can be feeling comfortable in public, and empowerment can be seeing your body decorated when in the past it was an avenue for shame. Whatever way the enthusiasts approached lingerie and how it made them feel, strong and confident was the result. Lingerie made the enthusiasts feel more present, valued, and affirmed. This finding supported Jantzen et al., (2006)'s conclusions on consumption and identity constructs as they pertain to intra-psychology and social/external factors. Based on participant data, three major points were mirrored: undergarments contribute to social identity (they tell you who you are), undergarments are a tool that can be a catalyst for exploration of self and can provide a way to connect with yourself and manipulate your intra psychological mood. Lastly, his results indicated that lingerie

is a technology of self as it relates to the data gained through this study by allowing the lingerie enthusiasts the ability to transform how they see themselves and perceive themselves through what they wear, influencing their happiness and outlook of self.

The Typical Atypical Body

When describing their bodies, the enthusiasts all saw themselves as out of the realm of normal. Several shopped at specialty stores like Curvy Kate, Torrid, and DD + boutiques while others had budget restrictions and were forced to shop fast fashion and discount brands in hopes products would fit. The CDC reports that the average woman over 20 years old is 63.5 inches tall, weighs 170.8 lbs., and has a waist circumference of 38.7 inches (FastStats, 2022). That puts the average woman at five foot three inches and a size 16 - 18 according to the ASTM D5585 11e1 (U.S. Standard Clothing Size, 2021). One of the participants self-identified as between a size 16-18 but claimed she did not have a normal body and said garments were not made to fit her. The researcher identified a relationship between issues with fit and the enthusiasts feeling as if their bodies were to blame. Unfortunately, there is a lack of affordable and desirable lingerie options readily available to lingerie enthusiasts who identify themselves as the average size American woman. The participants reported that the options made available to them can be described as matronly, grandma-esque, and bulky. While marketing tactics are more geared towards an inclusive image in lingerie companies' branding, the lingerie enthusiasts still struggle with finding things that fit their needs, are affordable, and stylish. A key takeaway from the data within this theme would be that the enthusiasts' self-esteem was affected when poor fit was a part of the purchasing process. Their self-esteem was also affected when lingerie was not available to them in their size. Additionally, when the options that were available in their size were seen as matronly or needed to be custom made, this resulted in the enthusiasts having low self-esteem,

feeling shame about their body shape, and considering themselves non-normative. Marketers or industry leaders can adjust these feelings held by the enthusiasts by showing more variety in models in their marketing while also catering to a variety of sizes. There was potential for fit models to be present for varying sizes to see how the undergarments fit rather than just scaling up or down from their more standard sizes. Marketers and industry leaders could also participate in consumer panels and control groups to discuss the negative effects of a poorly fitting undergarment and how it goes deeper than simply sizing up.

The Queens of Lingerie

The Dominatrix, the drag queens, the influencers, the sex workers, and the bra experts all paved the way for the enthusiasts to discover and learn about new lingerie which involves interaction with each other, suggestions of latest brands, sponsorships, and reviews. These unique groups cultivated their image and encouraged community engagement in their online posts which is like personal branding. This related to Torres & Arroyo-Cañada (2017)'s research findings which indicated that company interaction within a virtual community was integral to brand loyalty. Beside the influential people behind the garments, social media played the primary role in introducing new and interesting items. Social media algorithms and advertisements were how the participants were introduced to items if not worn by the above mentioned. What influenced the participants to sign up for newsletters, subscribe, and follow accounts were aesthetic factors. Many of the participants followed accounts based on representation. They were more inclined to follow the accounts showing their body type, size, and appearance in lingerie. The mirror of self was affirming to the participants as well as giving them a visual representation of how the garments may look on them. This aligned with previous research by Hume & Mills (2013) who related the way women perceive themselves influenced their purchases. This

included brand images and self-image being related (Hume & Mills, 2013). Additionally, enthusiasts found comfort in the inclusivity of an online community. Participants suggested that lingerie, while it is intended to be private/intimate, is a community event for them. New and interesting brands, cleaning instructions, and even books about care are available to them through these communities. They felt as if the taboo views about body conformity and hiding oneself were shifting given media outlets such as HBO's show Euphoria, all girl Lingerie Parties, and Rhianna's streamed lingerie fashion show on Amazon TV. Community importance within media as it relates to brand recognition is supported in the Ashworth et al. (2006) study. Lingerie online communities provide significant referrals while the relationship between the brand and its community is of high importance for consumer trust (Ashworth et al., 2006).

Luxury is a Click Away... or is it?

E-Commerce has given the lingerie community options from around the world. Consumers have access to French silks and lace from a click of a button. Customized bralettes and matching underwear can be purchased online in a matter of minutes. The lingerie world is at the enthusiasts' fingertips, but for a premium. Unfortunately, the cost associated with custom and individually produced lingerie items is at a price entirely too high for many of the participants. Two of the seven participants interviewed had experience with customized garments and only one had purchased customized lingerie. Another piece of lingerie that was included in luxury/customizable items was functional lingerie, in particular breast-feeding bras. Thus, participants are interested in more accessible options for all stages of a woman's life. Additionally, the more the participants spent on lingerie, the more interested they were in an accurate fit or boutique experience because of the risk of high dollar purchases, especially when purchasing from overseas.

Your Virtual Tailor

The qualitative data found that there was value derived from 3D's ability to be inclusive in sizing, transparency in the customizability and a 3D prototype is associated with high end products for consumers who struggle with fit. The exposure to 3D product visualization as well as CLO3D allowed them the opportunity to see there are options out there for those with sizing needs that deviate from the ASTM standards. Some participants derived from the visuals that if they were able to utilize a virtual mock-up of a lingerie set with their measurements, they would be saved from the try-on process which can negatively impact their self-esteem and perception of self. One participant described CLO3D as a virtual tailor, allowing them to customize their clothing in a virtual bespoke setting from the privacy of their home. Others appreciated the customization options of the avatar including skin color, hair texture, and exact in-depth measurements. With the value the lingerie consumers saw in the product visualizations and fit, they aligned this process with a high-end garment, given a range of \$200 and above. The same participants who commented on the expense of lingerie offered to pay more for a set because of the lowered risk CLO3D could offer. Inclusive sizing to those with disabilities was mentioned as well as an indication that if the software worked, the participant would be a customer for life. As demonstrated in the LadyBWear case, customization and bespoke offerings lead to customer satisfaction, trust, and loyalty (Ashworth et al., 2006). As LadyBWear did, offering inclusive options gave the company a competitive advantage. This was related to this current study's findings as participants indicated customizable and perfect fit options would influence the value and their loyalty towards a company. As mentioned within Chapter 1, Lingerie is a hedonic purchase and 3D virtualizations are hedonic in nature as well. This relates to how the enthusiasts reacted when exposed to the CLO3D simulation. This confirms and relates to Kim & Forsythe

(2007)'s research indicating that hedonic motivations had a positive relationship with product virtualization technologies.

A Digital Disturbance

On the opposite end of the spectrum, several of the participants distrusted the CLO3D avatar's idealistic form. It was compared to a SIMS character, video game, and a cartoon. The participants felt uneasy with the hard body of the avatar and doubted how straps and tight garments would accurately be shown on the hard body of an avatar. The participants felt a detachment and coldness to the avatar that resided in the face of it. All the participants felt that while the body (excluding the fleshy part) was an accurate representation, one participant felt that the face was "distracting and weird." When faced with the opportunity to "ghost" (hide) the avatar, one of the participants mentioned that they would rather have an avatar than nobody at all. The interesting part of this data analysis was the two participants most in opposition of the avatar and 3D visualizations were the two participants who did not identify themselves as either plus sized or a difficult fit. Lastly, with the correct fit and 3D visualization aspect, it was mentioned that the romance around lingerie purchasing, and the fit process could be ruined.

Based on the themes discussed and the data derived from it, it is essential to readdress the research questions:

RQ1: In what way do consumer motivations dictate a lingerie enthusiast's online shopping habit?

Lingerie enthusiasts purchase online similarly to purchasing in person. The consumer motivations behind lingerie enthusiasts online shopping habits are hedonic in nature, meaning the purchases fulfill adventure seeking, emotional appeal, and are pleasurable (Laurent &

Kapferer, 1985). While initially, the researcher thought lingerie enthusiasts would prefer shopping online because of the nature of online shopping being a hedonic one, the enthusiasts all enjoyed both the in-person and online experience. Online offers more customization, exclusivity, sustainable options, and the results are easily sortable whereas in person shopping has a limited selection but offers a sales representative and a luxurious boutique experience where feelings of self-care and self-admiration were expressed. Putting on lingerie was a way to glamorize their bodies, and, to the enthusiasts, that was a pleasurable experience. In-person lingerie stores are designed to make the consumer feel and look beautiful with warm moody lighting and curated lingerie displays. As lingerie is an aesthetically pleasing garment, intended to accentuate and celebrate the body, the aesthetics of a store selling those items were deemed important. The same idea was expressed for online shopping and the images the website curates and how the models are composed. This speaks to the consumer's emotional appeal.

Additionally, an in-store setting allows consumers who struggle with fit to try on items without the pains of overseas returns or nonrefundable intimates and gain assistance from knowledgeable associates. This finding coincided with Tsarenko & Strizhakova (2015)'s research which concluded that the attitudes towards purchasing and hedonic consumption were elevated when a retail associate was included.

Shopping for lingerie, whether online or in person, was a deeply emotional process. The consumers were able to envision when they would wear the set and anticipate how they would feel wearing it. A whole intimate experience was sought after by several of the participants. That is, they appreciated when a store either online or in-person offered upscale lingerie that coincided with a sensual experience like restraints, sex toys, and scents. Not to be confused with a sex-shop, this experience was related to the stores/online shops of Honey Birdette, Coco

DeMer, and Agent Provocateur where luxury lingerie was their primary area of business. This gave the consumers a sense of adventure, pleasure, and excitement, encompassing the hedonic experience.

RQ2: What is the relationship between lingerie enthusiasts' sense of self (esteem and efficacy) and consumer motivations?

With lingerie being an emotional and personal purchase, the relationship between lingerie enthusiasts' sense of self in terms of self-esteem and efficacy was tied closely to their consumer motivations. When wearing well-fitting lingerie, the enthusiasts felt a transformation that left them with feelings of empowerment, confidence exuding, celebratory, sexiness, luxury, confirming their beauty, and admiration. The perfect lingerie set gave the lingerie enthusiasts a certain superpower and an avenue for them to admire their bodies. This is confirmed by the research done by Brown et al (2001) which concluded that people who can see beauty in themselves imbue positive qualities about themselves. Self-esteem and self-efficacy affect a person's thoughts and ideas about themselves so when the lingerie wearer puts on their intimates, the feeling of power and confidence rises with their appreciation of their own beauty. In this study, many felt shame or discouragement for not fitting the idealized mold of what a woman should look like. However, lingerie gave them the opportunity to express and rejoice in themselves in a world that thrives on dissatisfaction. This translated into the type of lingerie advertisements and media the enthusiast consumed. The participants looked for and purchased from companies that aligned with their perceived sense of self. They enjoyed seeing their body type, shape, and skin color represented because it gave them a more accurate representation of

what the lingerie would look like on them. More inclusive advertising and a variety of body shapes and types was exciting and adventurous to the participants as well as confirming. In general, the participants considered themselves to have high self-esteem and had worked on themselves in the past to achieve it. They celebrated their bodies and saw value in them. These findings aligned with the researcher's ideas of consumer motivations and sense of self and were confirmed through the research discussed in the literature review by Hum & Mill (2013) which concluded that subjects with higher perceived self-image and high self-esteem purchased more sensual products and had a powerful sense of erotic value to those products and that those with strong self-image and esteem purchase more sexy fashion lingerie (Hum & Mill, 2013).

RQ3: How do 3D lingerie product simulations relate to consumer motivations of lingerie enthusiasts?

3D lingerie product simulations were a new concept for lingerie enthusiasts. This study was the first time many of the participants saw virtual runways and CLO3D simulations of a lingerie set on an avatar. The response primarily was positive with five of the seven participants who all indicated trouble with fit in the past being most interested. Those participants saw CLO3D as a virtual tailor and were excited about inclusive sizing opportunities. Many found the CLO3D software and product visualizations fun and interesting. The participants wanted options to customize their avatar to their skin color and hair texture for their shopping experience. This interest reminded the researcher of the previous work done by Kim & Forsythe (2007), and their study on hedonic online purchases and 3D visualization which indicated that hedonic motivations had a positive relationship with product virtualization technologies and the

entertainment value of virtualization satisfies hedonic needs and is perceived as useful in a shopping environment.

In the lingerie enthusiasts online shopping experience, there were times when items would come and not fit and negatively affect their self-image. The introduction of customization and product simulations on their exact measurements allowed them to alleviate the anxiety of the fit process. As it pertains to future consumer motivations of lingerie enthusiasts, it was indicated that CLO3D or product simulations of that sort encouraged the enthusiasts to purchase luxury lingerie items at a higher cost because of the value associated with the virtual tailoring capabilities. Pending the software's success in an accurate fit, participants would be inclined to be a customer for life, suggesting this produced customer loyalty and trust. This aligned with the conclusions of Ashworth et al. (2006) and their study of LadyBWear where customization paired with high service levels led to customer satisfaction, confidence, trust, and loyalty. Additionally, LadyBWear experienced repeat purchase levels over 80 percent (Ashworth et al., 2006).

While many of the participants accepted 3D product visualizations, there were two participants who felt more hesitant in seeing the value. While one participant was wary of the face of the avatar, calling it disconnected and weird, the other felt that the truth of the avatar in their measurements disrupted the fantasy of lingerie.

Implications

With the taboo views behind purchasing intimate apparel on the decline and lack of research on consumer behaviors of lingerie enthusiasts, it was necessary to conduct an in-depth study that could be foundational in future studies when establishing who lingerie enthusiasts are, how intimates play a role in their self-perception, and how they best can be marketed to. With the rise of ecommerce and 3D product visualization, this study also gauged the interest of

lingerie enthusiasts because of the hedonic nature of online shopping and 3D product visualization in relation to how the enthusiasts could best be served. The reviewed literature lacked a clear picture of who a lingerie enthusiast is and what is important to them. This current thesis provided understanding into these topics.

Within this qualitative research study, multiple themes were assessed as well as research questions answered. The data pointed to an overall picture of the lingerie enthusiasts and what lingerie meant to them as consumers. Through data analysis of the in-depth qualitative interviews, lingerie enthusiasts can be described as open individuals who relate to their bodies and feelings in an intrinsic way. They have high body awareness and either have high self-esteem or have worked for body acceptance. They can acknowledge when an article of clothing influences them in a positive or negative way and either lean in into the feeling or disregard it. Lingerie enthusiasts are hedonic purchasers who appreciate the new, the exciting, and the adventurous. A lingerie enthusiast's budget is diverse and regardless, they will either save and splurge or purchase less expensive items, depending on their personal purchasing criteria (sustainability, ethical, fast fashion). Lingerie enthusiasts are accepted by multiple ethnicities, genders, and sizes within the lingerie community. They appreciate the celebration of body and self in all forms. Social media allows an outlet for the enthusiasts to practice their art of self-expression through lingerie. They follow a variety of accounts that encompass the qualities mentioned above. Through social media, lingerie enthusiasts discover innovative ideas and new lingerie options as well as ways to care for their lingerie. Many of the enthusiasts saw lingerie as transformative in the fact that they could be whoever they wanted to be in intimate wear, and it was for them and them alone. There was no indication in the data that lingerie enthusiasts wore lingerie for anyone but themselves. The enthusiasts acknowledged that lingerie can be utilized in

intimate situations but for them, it was an avenue of self-appreciation and pampering. This data can be used to better understand and reach the lingerie consumer category.

Applied Implications

Through the review of who is a lingerie enthusiast and in what ways they can best be served, companies can benefit from this current research by taking note of the quality enthusiasts seek in a company. Those qualities are inclusiveness, social responsibility, and a large breadth of sizing options. By expanding size ranges and choosing fit models in those sizes, companies can capture more of an audience, especially within the United States. Companies can also conduct case studies with a panel of customers regarding fit and feeling of their lingerie. Findings from this research indicated that a poorly fitting lingerie item (bra was most mentioned) can result in the consumer feeling negatively about their body while also deeply disliking the brand associated with those feelings. Once a consumer had those initial feelings, they indicated the likelihood of trying that brand again was low. By curbing this negative response, companies can build a consumer base that trusts their size guides and abilities in making lingerie of quality and good fit.

Companies participating in social media communities could prove to be beneficial. Community is a key element in lingerie enthusiasts' interaction when discovering the latest brands. Seeing body representation and non-bias positive reviews on social media helps lubricate the purchasing process. Partnerships with influencers, drag queens, sex workers, and burlesque dancers would be beneficial.

Additionally, companies can expand in customizable options across the board. Adopting tools like CLO3D could grow consumer loyalty and trust by offering inclusive sizing that could fit anyone's needs. CLO3D would be a tool used in the design process but then a virtual mockup could be sent digitally to the purchaser before signing off on a custom garment. This would add

value to the customization process and reiterate the feeling of luxury. Lastly, this thesis research can also help disband any feelings of discomfort towards lingerie in hopes more consumers will purchase and appreciate lingerie as a form of self-expression and self-care. Advocating for an appreciation of body and self would hopefully encourage a community movement towards a more loving and accepting environment regarding consumers' bodies and consumer differences.

Academic Implications

In researching the phenomenon of lingerie enthusiasts, literature was almost nonexistent. Academic implications for this study could include insight into technologies of self when it comes to the clothing we wear, whether visible or not. Additional information was gained in how self-esteem can be influenced by articles of clothing and a definition developed regarding lingerie enthusiasts. This research could be considered seminal within the consumer behavior category in lingerie.

Limitations

Although every effort was made to make this study as inclusive and encompassing all data as possible, this thesis study had several limitations. The first limitation was geographical. This sample was not representative of the entire lingerie enthusiast population. Ideally, sampling lingerie enthusiasts around the world would be more inclusive of data as different countries have different social norms which can affect how lingerie plays into self-esteem. In addition, the U.K. has more boutique type lingerie store options than the United States therefore data could be different when describing online shopping vs in person experiences. For example, perhaps in the U.K. no one shops online and the development of CLO3D and product visualizations would be useless because all garments are bespoke and utilize a different form of measurement than the US. The second limitation is the age range of participants. The participants for this study were

between the ages of 27 and 37 therefore both a younger and older audience is missing so this does not represent the general audience of lingerie enthusiasts. More diversity in age would potentially yield a different self-esteem journey and have a different relationship with social media and online shopping. The third limitation would be the participants are all females. As indicated in the in-depth interview, there are many different genders who appreciate lingerie. The inclusivity of lingerie by nature means it can be worn by males, females, and nonbinary persons. By excluding men and nonbinary people, the research is less rich in discovering lingerie relates to those who are not particularly feminine dressing or who are feminine dressing but do not identify as a female. A wealth of information could be provided in purchasing motivations and individualized needs for those consumers. Lastly, the study was limited by the number of participants. While seven was acceptable for this qualitative study, it would have been ideal to have closer to 10-15 to gain as much data as possible. While there were over 350 minutes (about six hours) of in-depth interviews for this thesis study, there is always room for more data to achieve saturation. Within this thesis study, the qualitative interviews and interactions with the participants left the researcher without a doubt in the validity of their responses. The participants were open and excited to discuss their experiences, thoughts, and ideas.

Future Research

Future research can improve upon the study by taking the limitations discussed in the last section and implementing the suggestions. The limitations of this study can be eliminated by first expanding the study to a worldwide sample to get a better idea of the general audience. Expanding could bring light to differing perspectives, social norms, sizing challenges, and opportunities for the lingerie industry to grow internationally. Secondly, a more diverse age group sample could expand the knowledge gained in future research. Self-esteem journeys are

different at different ages as well as how an enthusiast decides to shop and fit challenges. A third recommendation would be to make the study inclusive of all genders to better understand the lingerie enthusiasts' market as increased purchasers are men and nonbinary persons. The fourth suggestion would be to expand the research to a more robust sample of people. Assessing these variables among a larger sample can identify more trends and patterns that may be prevalent.

In the future, researchers can expand on this current study by implementing suggestions for future research while also using this thesis as a seminal work to study lingerie enthusiasts more. This study supplied a definition as well as consumer behaviors and themes which can allow other researchers to expand upon or build from. Additionally, lingerie businesses can utilize this study as suggestions to better meet the needs of their consumers.

Conclusion

Concluding this thesis study on the consumer behaviors of lingerie enthusiasts, this study sought to identify and define lingerie enthusiasts while also discovering how best to meet their needs in an ecommerce centered world. The findings in this study included six major themes: Power of the Perfect Pair of Panties, The Typical Atypical Body, The Queens of Lingerie, Luxury is a Click Away... Or is it? Your Virtual Tailor, and A Digital Disturbance. The findings also answered the research questions fully as found in Chapter five. Moreover, this study included suggested improvements for applied applications within industry to better serve the lingerie enthusiast community while also providing a seminal study for future academic research.

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APPENDICES

APPENDIX A: IRB LETTER

Dear Ashley Heller:

Date: 11/23/2021

Project Title: Lingerie and Self: How to Better Serve an Underrepresented Industry.

IRB#: 24497

PI: Porterfield, Jane Ann

The renewal/amendment request for the project listed above has been approved in accordance with policy under 45 CFR 46. If your application was to amend your study protocol, and your study received expedited or full board review, this letter does NOT change the expiration date for your study. If you applied to renew your expedited or full board protocol, your new expiration date is shown above.

1. This board complies with requirements found in Title 45 part 46 of The Code of Federal Regulations. For NCSU the Assurance Number is: FWA00003429.
2. You must use the approved documents which have the status "approved" in the document viewer in the eIRB for your study.
3. Any changes to the protocol and supporting documents must be submitted and approved by the IRB prior to implementation via amendment request.
4. If any unanticipated problems or adverse events occur, they must be reported to the IRB office within 5 business days by completing and submitting the unanticipated problem form on the IRB website: <http://research.ncsu.edu/sparcs/compliance/irb/irb-forms/>
5. Any unapproved departure from your approved IRB protocol results in non-compliance.

Please find information regarding how to avoid non-compliance here:

http://research.ncsu.edu/sparcs-docs/irb/non-compliance_faq_sheet.pdf

Please let us know if you have any questions...

NCSU IRB Office

Please contact ncsuirboffice@ncsu.edu if an official PDF approval letter with signature is required by your funding source.

APPENDIX B: PRE-SCREENING QUESTIONS

Prescreening Questions for Hedonic Value (Tsarenko & Lo, 2017, p. 70):

DOES THE FOLLOWING DESCRIBE YOU (Y/N)?

SHOPPING FOR LINGERIE IS A PLEASURABLE EXPERIENCE (Y/N)

BUYING LINGERIE IS ONE OF LIFE'S PLEASURES (Y/N)

I ENJOY SHOPPING FOR LINGERIE (Y/N)

BUYING LINGERIE IS A BIT LIKE GIVING YOURSELF A SPECIAL GIFT (Y/N)

APPENDIX C: SEMI-STRUCTURED DISCUSSION GUIDE

Ice Breaker:

1. Tell me about a favorite piece of lingerie you bought.

Opening Questions:

2. I understand that shopping for lingerie is an enjoyable process for you, can you tell me about what makes it enjoyable?
 - a. On a scale of 1-10 how much do you enjoy shopping for lingerie? Why is it a (# they chose)
 - b. Tell me more about your lingerie experience?
3. When shopping for a new set, do you have a particular event in mind? If not, what initiates the purchase?
4. What factors are the most important to you when making a lingerie purchase? (Fit, color, style, innovation)
5. Where do you prefer to shop for lingerie? (Ex. Boutique, Department store, online)
6. What is it like for you when you find the perfect lingerie set?
7. What is your fav brand and why
8. What is your least favorite and why? (tell me why/help me understand)
 - c. Fit
 - d. Fabric
9. Where do you find new lingerie brands to try? Social Media? Store? Friends?

[OPEN DISCUSSION RELATED TO TOPIC]

Self-image Questions:

10. There's a quote that states, "Intimate wear can transform the person wearing it." Do you agree or disagree? Why?
11. Tell me about a time when lingerie played a role in influencing your self-esteem.
- e. Has lingerie affect/affected your Body Image
12. Do you feel like there are lingerie options available to you for your needs? Specify function and social/emotional?
- f. "Body needs" meaning, functional sizing and fit but also emotional in how you want to appear.
13. I read a quote that the taboo behind lingerie purchases and body conformity is shifting. Do you agree/disagree? What are your thoughts on that?

[OPEN DISCUSSION RELATED TO TOPIC]

Ecommerce and 3D Design Questions:

14. Have you ever purchased lingerie online? If yes, tell me more. If no, why not?
- g. If yes, tell me more.
 - h. When shopping for a lingerie set online, what influences your purchase?
Example: an event, work bonus, a reward, pick me up.
15. Do you follow any lingerie blogs, social media accounts, or subscribe to any mailing lists?
- i. What motivates you to follow? Uniqueness/body type/community

CLO3D is a digital platform for garment designing and visualization. It helps you run simulations to see different designs, shapes, and sizes of the garment in real time. The program lets you make alterations in a moment and see the difference with no wait time.

16. What is your exposure to 3D Apparel Visualizations?

- j. Show video of digital fashion show

PINK LABEL By Hanifa Digital Fashion Show

17. [Show example of 3D rendered bra- image placeholder for IRB]

- k. What are your thoughts on this bra?
- l. Observe reactions
- m. What can you tell about the bra from this image?
- n. How does it make you feel?

18. [Allow interaction with CAD bra] How would you feel utilizing this model within your online purchase vs a 2D photo of the bra on a model?

- o. Rotate bra
- p. Show different sizes
- q. Show different skin colors
- r. Ghost avatar

2. Gauge reaction to each action

19. What would seeing this bra in your measurements and size on someone who looks like you mean to you as a customer.

[OPEN DISCUSSION RELATED TO TOPIC]

APPENDIX D: 3D LINGERIE SIMULATION IMAGE

