

"Eye Shopping" on Fashion Mobile Apps

An Exploratory Study of Design Features

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Abstract Smartphones have allowed consumers to shop fashion retailers from anywhere at any time. Therefore, retailers must create compelling mobile app shopping experiences to achieve a competitive advantage. This study purpose was to gain an in-depth understanding of mobile application features that aid consumers' fashion shopping decision-making guided by Magrath and McCormick's mobile application framework. Semi-structured interviews and mobile shopping observation data were collected from seven fashion digital native students. Findings outline the mobile design features participants utilized, wanted, and desired, along with commentary on how the features were used. The study's findings extend the literature on mobile apps and give retailers suggestions for building and further developing their mobile app strategy.

Keywords Mobile Shopping, Mobile App, Shopping Experience, Atmospherics, Experiential retailing

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Introduction

In today's retail industry, brands must diversify to maintain competitive advantage. Specifically, as the digital world advances, retailers must adapt to new technologies to give consumers diverse shopping experiences. With the ubiquitous nature of consumers' smartphones, retailers' adoption of mobile commerce is crucial. In addition, consumers' shopping environment impacts their decision-making process. Therefore, retailers seek to create and control the setting. Atmospherics is the retailer creating a compelling shopping environment to elicit positive psychological and behavioral outcomes (Kotler, 1973). With the rise and staying power of the internet and the increased ubiquity of smartphones, researchers have utilized atmospheric design cues by creating typologies to examine how retailers shape consumer buying environments for a

variety of behavioral outcomes (Albarq, 2021; Eroglu, Machleit, & Davis, 2000; Vijay, Prashar, & Sahay, 2019). Further, Magrath and McCormick (2013b) built a framework to understand mobile atmospherics by creating four classifications: multimedia product viewing features, informative content features, product promotion features, and consumer-led interaction features.

Research has been limited to mobile commerce's atmospheric environment, how it differs from its earlier counterparts, and its influence on consumer decision-making. Therefore, this study aims to understand fashion digital natives' perception of the mobile commerce environment by studying consumers' mobile shopping activity to gain an in-depth understanding of mobile application features that aid the consumer in decision-making. Specifically, how and

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which mobile app design features assist in the shopping process? This knowledge is significant as today's consumers look for an easy, seamless, and effortless shopping experience. Furthermore, as experiential retail continues to thrive, retailers recognize that making a purchase and being satisfied with a product or service is no longer the sole factor needed to ensure loyalty and future transactions (Rosado-Pinto and Loureiro, 2020). Therefore, retailers' understanding of the mobile commerce environment can aid consumers through the decision-making process with the least effort possible by potentially effectively utilizing mobile atmospheric cues to elicit the desired outcomes (Dulabh, Vazquez, Ryding, & Casson, 2018).

Literature Review

Atmospherics

Atmospherics is the purposeful designing of retail space to elicit specific buying behavior through consumers' emotional states (Kotler, 1973). For a digital retailer, that retail space is the computer-mediated medium such as a website, mobile site, and mobile app that hosts their storefront where consumers interact with merchandise and services (Shih, 1998). Psychological and behavioral outcomes generated by a brick-and-mortar environment have been validated. Similar results are found in e-commerce (Eroglu, Machleit, & Davis, 2001), though little research has attempted to validate the same effects in the mobile retail environment.

Julie Baker (1986) extended the study of retail atmospherics by creating a typology of brick-and-mortar environmental elements resulting in three groups: social, design, and ambient factors. Social factors consist of consumer-consumer interactions such as perceived appearance, similarities, and other customer behaviors (Ngo, Northey, Duffy, Thano, & Tam, 2016). Social factors also include elements related to service workforce. Design factors are visual elements that constitute the retail atmosphere, including interior design (Baker, 1986). Lastly, ambient factors influence the subconscious. These elements are primarily auditory and olfactory (Eroglu et al., 2001). Expanding the study of atmospheric elements, Bitner (1992)

examined service organizations. Like Baker (1986), three categories were formed, but the grouping differed. While the grouped elements varied, they are consistent with Baker's (1986) findings at their core. Overall, early researchers (Eroglu et al., 2001; Gao & Bai, 2014; Hausman & Siekpe, 2009) established the vital position of e-atmospherics in influencing emotional response and behavior in the retail environment. Recent research (Albarq, 2021; Lee & Kim, 2019; Vijay et al., 2019; Vilnai-Yavetz, Gilboa, & Mitchell, 2021) has continued to support the importance of atmospherics in physical and digital space as positively experienced environments are vital to retailers' success. Additionally, smartphones' increasing global ubiquity and accompanying smaller screen sizes emphasize the need to focus on mobile atmospherics. Still in its infancy, m-atmospheric researchers are examining the ability to transfer traditional atmospheric cues to the mobile context (Rayburn, Anderson, Zank, & McDonald, 2022); understand the role of the mobile environment in consumer return behavior (Lee & Kim, 2019); and the role of branding in mobile atmospherics (Hsieh, Lee, & Tseng, 2021).

Mobile Marketing Design Framework

The rise of smartphones in the US necessitates retailers to have a successful mobile channel. The online atmosphere has been examined to understand the impact of numerous factors, such as stimuli and emotion, but limited research has investigated these impacts for a mobile application or a mobile site. Continued research in mobile environments is needed to identify the distinctions relating to mobile and e-channels so that retailers can choose the optimum channel to meet their demands. It is vital as mobiles present issues unrelated to laptops, such as diminished screen sizes, connectivity issues, and localization features. Therefore, exploratory research is needed to examine into the mobile shopping atmospherics, particularly for mobile apps.

Magrath and McCormick (2013b) established a framework to investigate the parts of a fashion mobile app. The framework comprises four factors: multimedia product viewing, informative content, product promotions, and consumer-led interactions. Each factor includes elements that are theorized to house within a specific factor. Nevertheless,

it is essential to remark that many of the factors and elements were designed based on e-commerce literature due to the limited field of mobile literature (Magrath & McCormick, 2013b). Therefore, this research in mobile application atmospherics may clarify which factors and elements are essential for mobile app shopping and precisely the elements that impact a consumer's purchase decision process.

Mobile Apps' Design Features

Optimizing retailers' mobile app is necessary to create a seamless consumer experience and differentiate a retailer from its competition. Retailers can accomplish this feat through the careful and purposeful planning of their mobile atmospherics by manipulating mobile design features. For the purpose of this study, mobile design features are the marketing concepts that compose the mobile app's visual design. Magrath and McCormick's (2013b) mobile marketing framework categorized mobile design features into four categories consisting of 18 individual design elements, discussed below.

Multimedia Product Viewing. Multimedia product viewing is the use of a retailer's multimedia aids to view products. These features will often generate an interactive, sensory environment. (Gulliver & Ghinea, 2010; Sina & Wu, 2019). Multimedia product viewing improves involvement and provides customers with means of gaining information, satisfaction, entertainment, and positive emotions (Gulliver & Ghinea, 2010; Simmons, 2007). Magrath and McCormick (2013b) consider the following elements.

Videos. Videos enhance shopping experiences (Kim & Lennon, 2010). Video content can vary. Videos allow consumers to better picture the product in motion. They help to enrich product visualization and promotion (McCormick & Livett, 2012).

Graphics. Graphics consist of pictures, images, and logos used for marketing or brand strategies (Rowley, 2009). It serves two functions to illustrate the product (product imagery) or promote the product (promotional imagery) (Ha, Kwon, & Lennon, 2007). Many retailers have enabled full-screen mode for better product imagery viewing on mobiles due to the positive impact of increase picture size.

ITT. Interactivity features use viewing functions like

zoom, 3D models, and virtual technology to boost the experience. Hedonic and utilitarian experiences benefit from interactivity as it delivers entertainment while reducing time and effort. The more interactive a shopping experience is, the more likely a consumer is to engage more in that behavior (Fiore & Jin, 2003; Shim & Lee, 2011).

Informative Content. Informative content is all of the readable text to inform the consumer (Grandon & Ranganathan, 2001; McCormick & Livett, 2012). At times, it may include limited imagery; its primary objective is to provide product and service information to the consumer. The following elements are informative content.

Product Information. The product image's text helps the consumer to know the product details (Ha & Lennon, 2010; Rowley, 2009). Product-related information includes aspects such as color, price, care instruction, product content, and sizing availability (Kim & Lennon, 2010). Essential product information provides the basis of trust and satisfaction in the retailer (Simmons, Thomas, & Truong, 2010).

Service Information. All information informing consumers of retail services is service information (Rowley, 2009), such as store location finder, FAQs, delivery and returns, and company policies (Lohse & Spiller, 1999; Magrath & McCormick, 2013b). While service information is not used as often as product information, high-quality service information, especially delivery and return policy information, strengthens a consumer's satisfaction (Ha & Lennon, 2010).

Trend Information. Trend information is a standard characteristic of fashion retailers (Siddiqui, O'Malley, McColl, & Birtwistle, 2003). Retailers will inform consumers of the newest trends by promoting their product assortment through blogs and lookbooks (Dawson & Kim, 2010). Trend information adds value to the consumer's experience by generating inspiration and joy (McCormick & Livett, 2012; Siddiqui et al., 2003).

Style Advice. Style advice is not the same as trend information as it leads consumers through the discovery of new products and aids in the decision-making process (Hsiao, Lin, Wang, Lu, & Yu, 2010; Ranganathan & Ganapathy, 2002). Style advice helps consumers know how to wear an

item, other items people browsed or purchased, as well as substitutions.

Social Media. Social media content is produced by consumers, retailers, and third parties. Its primary goal is to provide entertainment, value, and promotion (Kaplan & Haenlein, 2010; Mangold & Faulds, 2009; Shin, 2010). Additionally, social media encourages interaction and informs consumers of events, news, and promotions.

Product Promotion. Product promotion encompasses promoting the retailers' products and price markdowns to increase purchase intention and sales (Tong, Lai, & Tong, 2012). Promotions are a persuasive motivation enticing consumers to purchase (Park & Lennon, 2009). Product promotions contain visual and textual information to create powerful persuasions. Magrath and McCormick (2013b) indicate the high relevancy of product promotion to mobile store design and merchandising. The following six product promotion techniques are the most suitable for mobile apps.

Coupons. Coupons are the most popular type of sales promotion (Solomon, 2009). Through the usage of promotional codes, coupons can provide increased perceived value which can, in turn, influence purchase behavior (Park & Lennon, 2009). Furthermore, various retailers' coupons can be used both in-store or via the app, impacting in-store patronage and brand image congruence (Fiore & Jin, 2003; Muller, 2008).

Incentives. Incentives are sale tactics to motivate product consumption, such as BOGO, buy one product get the other half off, and shipping discounts. This encourages consumers to purchase more items to get discounted (Dawson & Kim, 2010; Meyer-Waarden, 2008).

Rewards. Rewards often indicate loyalty programs (Meyer-Waarden, 2008) which are the advantages of being a frequent shopper. These programs consist of price discounts, promotions, and gifts (Park & Lennon, 2009), generally delivered via a loyalty card or email (Singh, Veron-Jackson, & Cullinane, 2008). Rewards programs are a technique to demonstrate appreciation for consumers and their continued patronage (Chaffey, Ellis-Chadwick, Mayer, & Johnston, 2009).

Discounts. Discounts take a percentage off a product's original price without a coupon to increase purchase and

profit (Lowe, 2010). Retailers use discounts to promote sales to increase impulse purchase decisions. Other discounts include clearance, seasonal, and limited-time-only sales (Dawson & Kim, 2010; Lowe, 2010).

Competitions. Retailers may opt to hold competitions that consumers might enter to try to win the prize. Competitions are a straight forward way to acquire consumers' personal information for direct marketing uses (Chaffey et al., 2009). Additionally, competitions create buzz that ignites consumers' attention in a retailer and may help build retailer-consumer relationships (Rowley, 2009; Solomon, 2009).

Social Media Promotion. Consumer self-enhancement is achieved through sharing via social media product promotions and information (Ho & Dempsey, 2010; Jayawardhena & Tiu Wright, 2009). Countless retailers have a social media platform enabling their followers (consumers) to like, share, save, etc., their products to "friends". Hence, social media promotion is a consumer-centric element that can increase word-of-mouth intentions (Magrath & McCormick, 2013b; Rowley, 2009).

Consumer-Led Interaction. Consumer-led interactions support the consumer-focused experience and service. Consumer-led interactions are not focused on product promotion but rather emphasize consumers' control over their shopping experience, thereby fashioning personalized shopping experiences (Lee, Park, Kim, Kim, & Moon, 2011; Ranganathan & Ganapathy, 2002). These mobile interactions are unique and personal to the consumers (Yoon, Choi, & Sohn, 2008) and can be identified by user control, product experience, and relevance to the consumer of their experience (Lee et al., 2011). Thus, Magrath and McCormick (2013b) propose the following consumer-led interaction elements.

Personalization. Retailers provide personalization through the usage of consumers' personal information gathered through consumer site interaction, allowing retailers to create individualized experiences and target-based solutions (Vesanen, 2007). Undisputedly the most vital element of site design, personalization affects satisfaction, loyalty, brand relationships, and patronage intentions among others (Chang & Wang, 2011; Nguyen & Mutum, 2012; Srinivasan, Anderson, & Ponnnavolu, 2002).

Customization. Customization is the filtering of settings to a desired condition. Letting consumers control their search information reduces uncertainty while increasing enjoyment (Weathers, Sharma, & Wood, 2007). In addition, an app's sort and filter capability produces increased behavioral responses such as satisfaction and trust (Yeh & Li, 2009).

Augmented Reality. Augmented reality superimposes digital data over a live camera feed, thus giving the look of digital imagery existing in the physical world (Lu & Smith, 2008). Not like virtual reality, augmented reality uses a physical world setting, while virtual reality exists in a generated completely computer-generated world (Lu & Smith, 2008; Shim & Lee, 2011). Still, in its infancy, augmented reality has the potential to enhance product viewing.

Methods

Mobile shopping and mobile design features are fairly new areas of study. Therefore, an exploratory, qualitative study utilizing a multiple case study approach was conducted to study mobile shopping activity, thereby gaining an in-depth understanding of the mobile applications and features that aid in consumers' shopping process on mobile devices (Creswell, 2007). Data consisted of recorded interviews during which participants were observed using mobile apps and sites. In addition, a deductive approach wherein data were analyzed in relation to Magrath and McCormick's (2013b) mobile marketing framework was used.

Participants

Critical case is a type of purposive sampling that provides "specific information about a problem," which in the case of this research is identifying what fashion digital natives, those who grew up with advanced technology, view as the most important features of mobile shopping environments (Creswell, 2007, p. 126). Thus, critical case sampling is designed to find individuals well-informed about the problem's activity. Critical case sampling also allows researchers to logically generalize and apply information

from one case to another (Creswell, 2007). In addition, "maximum variation" was employed while sampling to ensure the selection of diverse cases and allow for a fuller description of multiple perspectives (Creswell, 2007, p. 129). In other words, rather than selecting similar cases, cases that "might provide rich and different perspectives" were selected in an effort to maximize the research findings (Daniel, 2019, p. 96). Following the approval of the Institutional Review Board (STUDY00004403), participants were recruited from a fashion merchandising class as they were well-informed about the activity. In addition, as a screening question, all participants had shopped for fashion on their mobile device, however some through an app and others through the mobile site. Therefore, fashion merchandising students that have shopped for clothing on their mobile devices were targeted as critical cases.

Materials

A semi-structured, open-ended interview protocol was designed to guide interviews and observations. Open-ended questions were developed based on Magrath and McCormick's (2013a, 2013b) framework to learn rich knowledge about mobile app shopping experiences (deMarrais, 2004). First, the interview began with a few rapport-building questions gathering the participant's age and other socio-demographic information. Next, questions targeting mobile app usage and type of shopper were developed to explore mobile apps and features that may influence purchases during the shopping experience. First, to analyze participants' mobile app usage, questions like "Tell me about the apps you use most?" and "What needs are the apps satisfying for you?" were asked. Next, to understand typical shopping behavior to group the type of shopper, questions were asked about participants' shopping frequency, types of products, and where they physically make purchases. Finally, to explore the mobile applications that aided consumer shopping experiences, questions about each mobile application (multimedia product viewing, informative content, product promotion, and consumer-led interactions).

Procedure

In-depth qualitative interviews were conducted with seven participants to decide the most crucial mobile design features. The interview began after informed consent. Each interview lasted between 25 and 45 minutes. In addition, participants were given an option to provide their email to be included in a gift card raffle after the interview was complete. During the interview, recorded observations were used to observe how consumers navigated apps, their behavioral response, and their feature preferences. Handwritten notes from recorded observations served as another form of data and were triangulated with the interview data to increase the internal validity of each case study (Smith, 2018).

Data Analysis

After the completion of participants' interviews and observations, the recorded data was downloaded and transcribed using the software, Rev.com. Two of the three researchers transcribed and checked the transcripts for accuracy. Once transcriptions were complete, the primary researcher added written notes from the recorded observations. Three researchers reviewed the 100% raw data, while one researcher experienced in qualitative coding (the coder) coded 100% of the data both manually and using Nvivo qualitative software. The coder began by piecing together concepts, requiring them to engage the data fully. As part of the analysis, coders identified emerging themes and concepts from the transcripts. Creswell's (2007) analysis spiral process as it applies to the case study method was used. This process began with organizing and managing the data, reading through the text, writing memos in the margins to develop initial codes, and developing a detailed description of the cases and their context. Next, the data were coded into "piori" codes (Creswell, 2007, p. 152) developed in relation to the framework used in this research (Magrath & McCormick, 2013a, 2013b). During this process, concepts were classified to establish themes and patterns by pulling apart the data and reconfiguring it into different clusters or groups. This allowed a coder to examine relationships between categories and compare and contrast cases (cross-case analysis). Lastly, the data were interpreted using

both direct interpretation and by developing "naturalistic generalizations," which are "generalizations that people can learn from the cases either for themselves or to apply to a population of cases" (Creswell, 2007, p. 163). To increase intercoder reliability, the three researchers, including the coder, attended a "debriefing session" in which they discussed their perspectives and reached 100% agreement on themes identified from the data (Creswell, 2007). Furthermore, one of the researchers, other than the coder and also experienced in qualitative coding, referred back to the raw data while writing the findings and discussion section; thereby ensuring that interpretations of the data were consistent.

Sample Characteristics. Seven students who were enrolled in a university in the southeast US were classified as digital natives and participated in the interview process, providing sufficient cases. According to Creswell (2007), a maximum of 4 or 5 cases in an individual study provides "ample opportunity to identify themes of the cases as well as conduct cross-case theme analysis" (p. 128). Participants expressed smartphones as integral to their daily lives, predominately due to social media. Additionally, all conveyed an intensified interest in fashion. Purchasing tendencies extended from every other week to 4 times a year; nevertheless, all participants cited browsing weekly.

Thick Description of Cases. Fashion digital natives regularly use smartphone apps daily for entertainment and social connection. Chloe mentions that "social life, communication, staying up to date" are pervasive motivators for using mobile apps throughout the day. Participants also indicated that they regularly check their phones when bored, ride in elevators, wait for a bus, between tasks, and during leisure time. Employing maximum variation (Creswell, 2007; Daniel, 2019) as a sampling strategy resulted in a sample with participants that engaged with mobile shopping in a variety of ways and, as a result, provided diverse perspectives on mobile shopping. Only four participants had mobile shopping apps downloaded on their smartphones, and three participants regularly used mobile apps. The remainder of the participants more often used mobile sites accessed via Safari/internet browser on their smartphones for shopping, considering this saved space on their smartphones and

prevented app crashing. Thus, even though two participants used their smartphones for browsing (mobile sites), they noted that they felt unsafe when entering their credit card information on their smartphones. Therefore, consumer concern for data privacy and safety may hinder digital natives' use of shopping apps and mobile shopping. All interviewees mentioned that they shopped for clothing and accessories online, except for one participant who mainly shopped online for beauty products. Products they shopped for included dresses, jeans (several worries about jeans fit issues), shirts/blouses, shoes, and accessories. While not all participants reported that they shop or browse online more frequently than at brick-and-mortar retail establishments, it was clear that they browsed on their mobile devices more frequently than physically "going shopping." For example, Bella reported that she shopped on her phone two-three times a week, whereas Mary reported that she shopped mobile every day. Kristin and Chloe made the distinction between browsing and shopping:

Kristin: I browse pretty often. I would say like at least two times a week, maybe a little more because I'll get like bored but. I don't know. I like buying things in store because I like to try on so. Maybe. Do online [mobile] shopping like once every two months.

Chloe: If I did have time during the week, probably like three, four times a week. Just eye-shopping. ...I mean I don't go shopping very often. Like I know some people go every weekend or every other weekend, but if I would do that because I'm pretty sure the products would be the same maybe a month or two later, they might start changing the floor and whatnot. But with online shopping, like I said, I do it pretty often during the week if I have time."

Both responses reflect that smartphone browsing occurs much more frequently than visiting brick-and-mortar stores or purchasing online. Participants responded that it ranged between fifteen minutes and three hours when asked how long they typically shopped online.

Table 1 describes the participants' demographics and mobile shopping behavior. In addition, a summary of the study's findings through the framework of Magrath & McCormick (2013a).

Findings and Discussion

Important Features

When the participants were asked about their most desired features on a product page, participants mentioned concise but descriptive titles (Nicole), sourcing information (Samantha), material/fiber content (Nicole), original price (Nicole and Samantha) (practical product information), sale price (Nicole) (product promotion). Additionally, participants mentioned video (Nicole) and product imagery (multimedia product viewing) with zoom capabilities (image interactivity technology) (Samantha) were necessary features. In addition, Nicole mentioned that it was important to show products on models of various sizes. Nicole and Samantha also mentioned that it was important for webpages to contain multiple product reviews and suggested items or "other people bought this" (Samantha) (consumer-led interactions). Finally, participants felt mobile sites should be easy to use, navigate, and organize. Samantha mentioned, "It's actually sometimes easier to use the web version on the computer instead of the phone version." It is just "frustrating when the app just is sort of hard to use or has dumb features."

Two participants mentioned that the app should function properly. For example, Nicole stated that apps should "not crash as often" and explained that some of her apps "tend to crash a lot, and I just ended up going (...) to the web pages, so it doesn't take a lot of data on my phone." Similarly, Mary mentioned that when apps crash, "it's so annoying, especially because when I'm looking at something, then I have to start over from the beginning of the page and like scroll back down, which I hate."

Finally, the appearance of the website or app was important. Two participants felt the product page should be aesthetically pleasing. As Samantha explained, "Amazon just looks sort of ugly when you are clothes shopping because, on clothes websites, they have the product outline in a box.

Table 1. Participant characteristics and summary of themes

Participants' pseudonyms	Mobile Shopping Behavior			Mobile Shopping Frequency	Multimedia Product Viewing	Informative Content	Product Promotion	Consumer-led Interactions
	Mobile App							
	General Merchandiser	Department Store	Specialty Retailer					
Mary, 21-year-old white female	Etsy Amazon Michaels Pinterest	Nordstroms Macy's Bloomingdales	DSW Free People Urban Outfitters Warby Parker	Overall: Constantly mobile browsing between classes, at night, or when bored.	Overall: This design feature allows for the consumer to visualize how the product will look.	Overall: This design feature helps in understanding quality of product.	Overall: This feature seems to have the least impact of shopping behavior compared to the other features.	Overall: Consumers really valued this design feature as consumer reviews and suggested "other" items helped consumers shop.
Samantha, 21-year-old, white female	Instagram Shop Bop Rent the Runway		Top Shop Nike H&M Zappos	Chloe: "I browse a lot."		Samantha: "I go to the fabric materials and reviews. I want to know everything."	Nicole: "I feel I see them a lot. They are always popping up, but a lot of times I move on."	Mary: "Amazon gives you all these suggestions for you and I always look at those."
Nicole, 22-year-old, white female	Retail Me Not		Asos	Nicole: "I'm a big online shopper!"	Kristin: "It would be really cool if more apps had videos of people wearing the item."	Callie: "I compare the material, what it's made of whether it's dry clean or hand wash."	Chloe: "I usually only shop from the sales section. I try to find the best time to buy a product on sale."	
Chloe, 22-year-old, Black female				Bella: "It can be from 30 minutes to 3 hours a day. It depends how much time I have"	Mary: "I look at the picture and close ups to know how the quality will be especially with fast fashion"	Bella: "I like when they put the measurements of the model to give me an idea of fit."		
Callie, 20-year-old, Asian female	The Real Real	Dillard's	Urban Outfitters Nasty Gal Show Me Your Mumu Victoria Secret DSW					Samantha: "Some websites, like they really get it [product suggestion] exactly right because I go to it [mobile site] and buy it."
Bella, 20-year-old, Asian female			Hot Topic H&M Forever 21 Free People				Callie: "I've done some of the tag your friends competitions and actually won a bracelet, but I haven't returned to the site after."	
Kristin, 22-year-old, white female			Zara JCrew Revolve					

Everything looks more separate, and Amazon, it's all the same." While not all participants explicitly named important features of an ideal mobile app, the features became clear throughout their interviews and observing their mobile shopping process. The findings verified the importance of a mobile-first strategy when developing retail apps. Unlike e-commerce, participants emphasized the lack of patience to learn how to use a retailer's app if they deemed it unfit to their expectations, noting they would no longer use the app or switch to the web version. Additionally, aesthetics was considered necessary but were second to operational needs.

Multimedia Product Viewing

Video. While most participants did not identify product

videos as an important feature, they noted that videos helped see how it moved on the model (Chloe), which provided a better understanding of how the material looked and drapes on the body (Mary). Furthermore, two participants noted that they preferred videos over still images because they provided a more accurate representation of the product. For example, Chloe stated, "I much prefer the video ... because with the picture, you don't know if the model had to sit or stand in an awkward position to make sure the garment looked good. So, seeing the video is a lot more reassuring." Similarly, Nicole noted that she liked it when videos were available because the product "could look very different and be manipulated in pictures." Overall, these participants expressed how videos gave a more accurate representation.

Digital natives desire accurate product representations, in not only what the products look like but how the product will move on a body. Through videos, these consumers expressed reassurance in the product's trustworthiness for them to make a sounder purchasing decision. Thus, videos can enhance customer loyalty and generate positive word of mouth. As a result, retailers should include videos, specifically in their mobile apps, which may increase basket size and decrease returns. This finding may be more impactful for small- to medium-sized enterprises where returns are undesirable, especially those catering to non-standardized clothing such as petite, tall, and plus-size apparel.

Product Imagery. Images of the product were among the essential features of mobile apps/sites, as most participants communicated that product photos were necessary for the shopping process. Images showing products featured on models were the most valued product imagery. The models, especially when their height and sizes were displayed on the webpage, often served as a point of comparison to the participants, helping them to determine how the garment would fit their bodies. For example, Bella explained this consumer decision-making process,

"I don't like apps that don't have it on a person, even if this person is a skinny model who's not my body type at all. I just want to see how it like flows on the body. I actually do look at the model sizes. On Revolve, for instance, their models are usually extra small. For tops, I'm about one size more than that, so if I'm looking at Revolve and they have their model in a size small, then I'm probably going to buy the medium."

While featuring garments on a model and model stats is beneficial, it increases the time spent in consumer decision-making. Nicole suggested that this process might be eliminated if webpages showed the product on "different models that aren't just of one size" because she could "see how it [the product] looks more accurately on someone who is your size." In addition, consumers seek fit advice by comparing themselves to a brand's model. Therefore, much

emphasis is placed on expanding model sizing to have a more inclusive view by allowing consumers to see multiple models of various sizes to understand product fit better.

Therefore, brands should think more holistically about their consumers' consideration of body size. Consumers tend to purchase when they feel represented on the site and identify with a product. For this reason, retailers should include a variety of model sizes to display. In addition, other factors such as exploring models with diverse ethnicities, using models with disabilities, and adding people who do not fit the 'beauty standard' can motivate new customers to buy from that brand and relate to their products. This would help a retailer's brand image by being more inclusive and aiding consumer decision-making by reducing the gap between uncertainty and connectedness.

Promotional Imagery. Promotional imagery seems to play less of a role in shopping than product imagery. Some participants acknowledged that promotional imagery was on the homepage under headings like "Best Sellers Coming in Hot" (Bella). Mary, the only one who mentioned that it influenced a purchase, explained that if the featured items were paired with something she liked, she would locate the item and purchase it. Most other participants viewed promotional imagery to communicate trend information or style advice rather than as a sales promotion or advertising tool. These results suggest fashion digital natives perceive promotional imagery more as style advice and less as a sales tactic. Retailers should consider increasing the style advice perspective by collaborating with influencers desired by their target market. This strategy may raise brand awareness and encourage higher sales volume by motivating consumers to buy all pieces of an influencer look to stay in the now. In addition, paying close attention to the wording of these promotional images is crucial to retailers' success. Therefore, based on these findings, if brands identify fashion-focused digital natives as their target market, they should have keywords that will drive the consumer to click on the ad and see the products under that list. Correct keyword usage will motivate the purchase of something under that curated list rather than engage in a personal search.

III. Three participants mentioned that they regularly use the zoom feature and view close-ups of the product while

shopping on mobile apps or sites. The zoom feature was used to understand the fabric, material (Chloe), or small elements like logos on shoes (Samantha). However, having multiple product views seemed more important to the participants than the zoom and close-up features. Callie explained, "I like to be able to see the front and back... Some dresses may have a cute front, but like the back may go down too low... so that's probably going to be a no-go." Mary also noted that she probably wouldn't buy anything from a mobile app/site that did not include multiple product views because she wants to see "what the whole thing looks like." Lacking physical touch and the ability to examine apparel products online, consumers are looking for technology to be their eyes and hands. It is especially true for products with small or fine details that need a closer view for consumers to perceive their value and willingness to purchase. Retailers specializing in products with intricate designs, such as formal wear or iconic logos and features, should increase the usage of zoom and multiple viewing functionality.

Features like virtual reality, 3D models, and 3D virtual try-on were not common or were viewed as underdeveloped. For example, when asked if she had ever seen or used 3D models, Chloe stated, "No, I want to! I like stores in New York having all those interactive experiences or whatever, but I have yet to come across those." In addition, only two participants mentioned using augmented reality; only one of them had used it while shopping for products related to clothing and accessories. For example, the participants explained the virtual try-on with Ray-Ban and liked it but noted that the colors were off; therefore, it provided only a basic idea of how the product looked. Thus, the technology was underdeveloped and may not be relied solely upon when making purchase decisions.

Overall, multimedia product viewing design features emphasize the consumers' need to use technology to get the best idea and representation of a product under purchase consideration. The more information (visual and textual) they can gain, the quicker they move through the consumer decision-making process. Additionally, as consumers gain more information about a product, it lessens the feeling of making mistakes and regrets leading to positive behavioral outcomes.

Informative Content

Practical Product and Services Information. The most sought-after practical product information included price, material/fiber/fabric content, care information and country of origin, and model statistics (size and fit). Practical services information was less sought after. However, participants most often stated that they looked for information on shipping prices and return policies and procedures as that information ultimately impacted the price they paid for mobile orders. For example, Callie stated, "I typically like to look at (...) what it is made of and how durable it is. Am I getting my money's worth pretty much. (...) with online shopping."

Information on shipping rates (practical services information) was related to price as free shipping motivated purchases. For example, Mary explained, "Anytime that I find something on a different website, if I can get it on Amazon, then I get it through Amazon because they have really good refund policies and really good shipping. You don't have to pay for shipping, so I really like that." The only other important practical service information included delivery time.

Size and fit information was the second-most important product information regarding the availability of sizes and information used to determine fit. In comparison, two participants mentioned using size charts to determine what size they should purchase; most participants more commonly referred to model stats, which they used to compare their size and height to the models to envision how the garment would fit them. For example, Mary explained, "this girl is 5'9", and bust of 32, waist 24 hips 33. I know that I'm a lot shorter than her, so this dress would be a lot longer on me."

Retailers should implement effective sizing reference guidelines for consumers. Size references are especially vital for pure-play retailers and those retailers without free shipping and return policies. Appropriate sizing guidelines will be an excellent tool for consumers when buying a product and lessen buyer's remorse and returns. Additionally, consumers are looking for bodies like their own. Thus, retailers should continue to use models of various sizes and ethnicities to reflect the consumer in their brand. This diversity will not only help the consumer's purchase decision

but can also strengthen the brand-consumer alignment.

Trend Information and Style Advice. While several participants acknowledged that information about the latest trends typically could be found on the homepage of mobile apps/sites, few admitted that was where they looked for trend information. Instead, most explained they looked to social media, particularly Instagram (Samantha and Callie), Pinterest (Callie), and bloggers for style advice. When trend information was sought after on the app or site itself, it was primarily visual information presented on the homepage. For example, Bella indicated that she receives trend information from Revolve's "Best Sellers Coming in Hot," which contains themed groupings of coordinating products such as a holiday dress with matching clutch, shoes, and jewelry.

Like Bella, other participants did not see style advice as distinct from trend information, which suggests that trends are not just styles alone, but how they are worn in combination with other products. Most participants did not actively seek style advice and only referred to it when a product drew attention. In contrast, Mary explained that she gleaned style advice from promotional and product imagery. When viewing product imagery, she gleans style advice by viewing the products paired together. The findings validate the rise of social media influencers as traditional lookbooks and style advice columns are no longer relevant. Consumers yearn for visual validation of looks and lean towards influencers to drive their style advice.

Product Promotion

Vouchers, Coupons, Discounts, and Incentives. Participants mentioned taking advantage of coupons, discounts, and incentives, usually announced at the top of the webpage/app. Nicole explained that discounts and sales are vital as she never buys anything at full price. Instead, she stated, "I'll go onto the web pages pretty often, so I can see like the sales and see when it would be best to buy that product." Samantha mentioned visiting websites and seeing promotional offers like "Subscribe to our newsletter and get 10% off," but does not take advantage of those offers until she is ready to purchase something.

Several participants noted that rather than using coupon codes or discounts announced on the app, they often use

promotional offers (including coupon codes and discounts) received via email subscription (Kristin, Callie, Samantha). Chloe was the only participant who noted that she actively searches for coupons external to the retailer's website or app (e.g., YouTube's promotional codes). In addition, she will often purchase the minimum amount to qualify for free shipping (an incentive), further illustrating the relationship between the shipping rate and the total price is important.

The retail industry has primed consumers for sales and discounts. While consumers do not always use them as soon as they are available, the findings support that consumers look for one(coupons/sales/discounts) when they are ready to purchase an item. Moreover, consumers will sign up for a retailer's promotional offers in return for financial gain.

Rewards and Loyalty Programs. Mary, Samantha, and Nicole mentioned participating in rewards/loyalty programs. For example, Mary explained that her Urban Outfitters purchases are tracked online and in-store (by scanning a code in the app), which allows for accumulating points that lead to a coupon or discount. Mary mentioned that she could track her progress toward a reward by visiting the rewards page in the app. Rewards programs increase the loyalty between a consumer and a brand and act as an incentive for future purchases. If consumers are part of a loyalty program, they will feel more connected to the brand. It, in turn, can motivate additional purchases in the future, especially when consumers can view how close they are to the next reward.

Competitions and Social Media Promotion. Competitions are typically hosted on social media and involve sharing. Mary mentioned that on one app, a tab called "competitions and more" informed the user of competitions that may have or may not have involved social media. She explained that these competitions do not necessarily influence her purchases. However, Callie and Kristin mentioned seeing promotions and competitions shared on social media. Such competitions usually involve tagging others to win, posting a photo of oneself wearing the retailers' products with a tag or hashtag, or sharing a page to get comments or likes. Callie mentioned winning bracelets from one of these competitions. As a result, she revisited the webpage to see the new products they offer.

A few participants mentioned sharing other types of

promotions on social media. For example, Samantha explained, "One time, Victoria's Secret had a promotion for 10 for \$35 panties. I shared that on Snapchat one time because I'm not selfish." Mary mentioned that instead of sharing on social media, she "just take[s] a screenshot of it and text it to my friends." The findings noted that most competitions happened on social media, not the retailer's mobile app. Retailers should improve the seamless competition experience by promoting it on both platforms, mobile apps, and the brand's social media pages.

Consumer-Led Interactions

Personalization. Participants were ambivalent about personalized recommendations, and these feelings typically stemmed from the accuracy of the websites' predictions. For example, Mary occasionally looks at suggestions when searching for something specific. In those cases, she will look at items similar in style but not color. Bella stated that the recommendations are usually not helpful because she often finds something at a price point she cannot afford. On the other hand, Samantha noted that the suggestions are "ok" depending on the site she visits. More frequently visited sites offer more accurate recommendations, even if the items are not the same color or style, whereas less frequented sites do not provide accurate recommendations because "they do not know me as well."

Participants did like it when items were recommended that others bought with their desired item. These types of suggestions were read as personalized style advice. For example, Nicole mentioned that these suggestions "curate an outfit for you." Although Samantha initially mentioned that she found this feature annoying, she stated that the perfect page would have "suggested and other people bought this." Similarly, Nicole stated that the perfect page would "Have product reviews at the bottom and associated items that may look good with the" product, indicating that recommendations are an important feature of mobile apps/sites.

Participants had mixed feelings toward personalization features. However, it is vital to note that trusted personalization efforts by a brand when it was related to what

other people have bought or viewed versus based on their search history. Thus, the dependence of consumers on user-generated feedback versus the push of the brand's effort. Retailers should focus on suggesting items and products other consumers in their area or demographic makeup viewed or purchased, especially when it is a site the consumers visit less frequently.

Customization. When asked what participants' ideal filtering would look like (i.e., which features should be featured), participants often mentioned color, product type/style/silhouette, length, size, and price. Samantha and Mary felt color was less important than style, length, product type, and size. For example, Samantha mentioned, "I don't know what color I want," and Mary stated, "I might think I want a black dress but end up wanting a pink dress." For Andrea and Chloe, filtering by color was the most important, as Chloe stated that limiting her choices to blues and other neutrals kept her in her "safe zone."

Retailers need to continue to allow consumers a variety of filtering options. Filtering gives consumers the freedom and flexibility to stay in their comfort zone or venture out to find something slightly different than they had in mind. Consumers want to find what they want without being closed off from other opportunities.

Consumer Reviews. Reviews can be considered an element of consumer-led interaction because it is user-generated content that creates a consumer-to-consumer interaction point. Reviews were critical because participants viewed them as "more honest" (Chloe), valid, and reliable than information on the retailer's website/app. Reviews often provide in-depth information not apparent in practical product information, such as product quality. For example, Samantha stated that she takes reviews "very seriously, especially with quality" and recounted when she did not purchase a pair of boots because "somebody said that the boots were awful and they couldn't stand up in the rain." Samantha noted that this review also "helped explain the [cheap] price." In other instances, reviews explained if and how the product was visually different in texture and color than how it was presented in product imagery on the website/app. The number of reviews was also important in terms of validity. Two participants communicated that a

product had to have multiple (positive) reviews before they considered purchasing it (Samantha & Chloe). Chloe explained:

There's always one person who just goes in on it (...), but then I also make sure to read the other ones. I want to make sure it's balanced. Because there's always that one person, so you can't just completely put their opinion over everybody. So if multiple people are saying it's a good fit, then I just go with the majority of the reviews.

Furthermore, the reviews need "to be pretty detailed" when the level of involvement in the purchase decision is high.

Just as consumer reviews were perceived as more honest, consumer photos in the reviews were viewed as more reliable and valid than product imagery because they were of "real people, not models" (Bella). Similarly, when model stats accompanied images of products when consumer images were coupled with information about the consumer's height, weight, and other information, it provided the participants with a point of comparison, which assisted them in judging the size, fit, and length of garments. Moreover, consumer photos let users see how other customers wore the product, providing visual style advice. The findings note that consumers are more responsive to their peers and impart more trustworthiness and value than information gained from the retailer. Therefore, retailers need to integrate their consumers' findings and feedback within product pages to reduce the perceived risks a consumer might be experiencing before buying a product and ultimately be a positive deciding factor in whether to purchase a product. Retailers should additionally allow consumers to post images in their reviews as this can help a consumer style an outfit better and could lead to a larger basket purchase.

Implications and Conclusions

Magrath and McCormick's mobile marketing framework is a foundational start to understanding how consumers perceive

mobile apps for shopping. However, from the consumer's viewpoint, several model elements overlapped into various categories. The division of the main four categories held, but at times the elements were too specific and defined compared to the consumer views. This finding may imply that while consumers cannot separate the intricacies of mobile atmospherics, retailers do a better job creating seamless experiences within their apps and across other digital channels such as mobile sites, social media, and e-commerce. The study aimed to understand fashion digital natives' perception of the mobile environment by exploring their mobile shopping activity. The findings show that consumers use mobile design features to be their eyes and ears to inform their decision-making process better. They did this by accessing other viewpoints to compare themselves as they found peer-to-peer information valid and reliable. Overall, this study highlights the usage of mobiles as one's shopping assistant.

Limitations and Future Research

As with any study, there are limitations that lead to future research projects. First, the limitations of this study may include those related to the sampling strategies used. While the sampling techniques aimed to identify cases that would provide diverse and multiple perspectives, all participants were fashion students who exhibited a high interest in fashion, which meant that the design features of primarily fashion mobile apps and sites were discussed. Therefore, future researchers could seek out cases where participants shop on their phones for non-fashion products or with individuals with low fashion involvement.

Second, this study focused on digital natives who grew up with advanced technology. Thus, future research should consider the comparison of digital immigrants with digital natives in their mobile shopping journey, especially with the covid-19 pandemic forcing more digital immigrants to adopt mobile shopping technology. Additionally, as digital natives consist of generations y, z, alpha, and beyond, future research should examine web 3.0 features such as AR, their potential interplay with the mobile environment, and their impact on

the consumer journey and decision-making.

Finally, an interesting finding of this study was that consumers did not really differentiate the shopping experience on mobile apps or mobile websites. However, mobile app technology and ease of use have improved; therefore, further exploration in the inclusivity of mobile app atmospherics and the consumer experience would further this area of research and be beneficial for fashion retailers' business.

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