FORECASTING 2.0:

USING WEB 2.0 FOR MARKET RESEARCH IN

APPAREL PRODUCT DEVELOPMENT

by

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GLOSSARY

A glossary was compiled to add a foundation of understanding to the apparel and technology terms used in this study. These definitions were compiled from findings in the literature review and Wikipedia, the online encyclopedia, to gain the most commonly understood definition of the term.

Blog - Short for Weblog: a type of website, usually maintained by an individual, containing entries discussing people, places, or things, or containing other material such as graphics or video [also: Micro-blog - short blog updates] (http://en.wikipedia.org/wiki/Blog).

Brand Community - A community of users formed on the basis of shared attachment to a particular product or brand (http://en.wikipedia.org/wiki/Brand_community).

Commercial Chatting - Online consumer communications where information on specific products or services is shared and exchanged. Commercial chatting occurs when 1) consumers talk to other consumers, 2) consumers talk to a business and/or, 3) a business talks to consumers (Zinkhan, Kwak, Morrison, & Peters, 2003).

Consumer Behavior - The study of when, what, how, where, and why people do or do not buy products or "patron services" (http://en.wikipedia.org/wiki/Consumer_behavior).

Consumer Centric [Product Development] - Firms actively incorporating more focused primary consumer data into their forecasting and development of new apparel products; ie, market and consumer research driving the design and creation of new products (Kincade, Regan, & Gibson, 2007).

Crowdsourcing - The act of creating a poll/ survey and using a crowd/ group of people as a source or resource in making an executive decision (http://en.wikipedia.org/wiki/Crowdsourcing).

Digg – A social news website launched in 2004 that allows users to submit stories and vote them to appear higher or lower on the page (http://en.wikipedia.org/wiki/Digg)

Facebook - A global social networking website where users have a personal profile, can add friends, send messages, and create and join groups supporting ideas, businesses, or events (http://en.wikipedia.org/wiki/Facebook"). This website was ranked in Jan. 2009 as the most used social network (http://blog.compete.com/2009/02/09/Facebook-MySpace-Twitter-social-network/).

Fast Fashion – Trends in garment products that are designed and manufactured quickly and cheaply to allow the mainstream consumer to take advantage of designer clothing styles at a lower price (http://en.wikipedia.org/wiki/Fast_fashion).

Forecasting - The process of estimating the response to an unknown situation by using available resources and data. In fashion, forecasting refers to the prediction of how, why, and the motivations that drive customers to behave, shop, and buy (http://en.wikipedia.org/wiki/Forecasting; May-Plumlee & Little, 2006).

Internet – The worldwide system of computer networks connecting millions of private, public, academic, business, and government networks and allowing global users to communicate and interact (http://en.wikipedia.org/wiki/Internet).

iPad – Released in 2010 by Apple, Inc, the iPad is a tablet computer controlled by a multitouch display that can run audiovisual and multimedia applications as well as stream the internet (http://en.wikipedia.org/wiki/Ipad).

iPhone – Released in 2007 by Apple, Inc, the iPhone is a line of revolutionary smartphones that allow the user the ability to access the Internet and other multimedia platforms (http://en.wikipedia.org/wiki/Iphone).

Market Research - A business strategy describing the organized effort of a firm to gather information about markets or consumers (http://en.wikipedia.org/wiki/Market_research).

MySpace - A global social networking website where users can customize their profile pages and link with other users in the community (http://en.wikipedia.org/wiki/MySpace). This website was ranked in Jan. 2009 as the second most used social network (http://blog.compete.com/2009/02/09/Facebook-MySpace-Twitter-social-network/).

New Media - A generalized term encompassing the digital and computerized communication systems that emerged in the late 20th century; examples of which are the Internet, websites, and computer multimedia (http://en.wikipedia.org/wiki/New_media).

Online Chat- Communication over the Internet, especially one-on-one chat (e.g., instant messaging, internet forum discussion) (Zinkhan, Kwak, Morrison, & Peters, 2003).

Product Development - The design and engineering of products which are marketable, manufacturable, profitable and serviceable for the target consumer (May-Plumlee & Little, 1998).

Quick Response - A business strategy which focuses on creating time saving efficiencies within the merchandising system, specifically within the manufacturing cycle (May-Plumlee & Little, 1998).

Sell-Through - The percentage of units sold at full price during the selling period. This factor is the most important in analyzing product success (Jang, Dickerson, & Hawley, 2005).

Skype – A computer application enabled through a software download that allows registered users to communicate through instant messaging and voice calls over the internet (http://en.wikipedia.org/wiki/Skype).

Social Network Service – A web based service focused on building online communities of people who share interests and/or activities, or who are interested in exploring the interests and activities of others (http://en.wikipedia.org/wiki/Social_network_service).

Twitter - A social networking and micro-blogging service that enables users to send and read messages of 140 characters or less, known as tweets (http://en.wikipedia.org/wiki/Twitter). This website was ranked in Feb. 2009 as the

third most used social network (http://blog.compete.com/2009/02/09/Facebook-MySpace-Twitter-social-network/).

Virtual Community - A group of people that primarily interact via communication media (telephone, email, Internet social network service or instant messages) rather than face to face for social, professional or other purposes (http://en.wikipedia.org/wiki/Virtual_community).

Website – A collected map of web pages, images, and digital creatives organized under a unique address and made accessible through the Internet (http://en.wikipedia.org/wiki/Website).

Web 2.0 - The second generation of the World Wide Web in which content is user-generated and highly interactive. Web tools invite site visitors to comment, collaborate, and edit information (http://en.wikipedia.org/wiki/Web_2.0; Henry, 2001).

Web Crawling - Using computer programs to browse the Web and follow maintenance directions or gather information from sites. [Unfocused Web Crawlers mine and index the entire Internet. Focused Web Crawlers mine and index sites related to a command query] (http://en.wikipedia.org/wiki/Web_crawling; Engler & Kusiak, 2008).

Web-Mining - The application of data mining techniques to discover patterns from information on the Web (http://en.wikipedia.org/wiki/Web_mining; Rickman & Cosenza, 2007).

World Wide Web – Also known as the 'web' and commonly abbreviated as 'WWW', is the global information sharing medium of interconnected documents enabled to be accessed through individual computers connected to the Internet (http://en.wikipedia.org/wiki/World_wide_web).

ABSTRACT

Web 2.0 technologies have allowed for increased conversations regarding fashion and apparel products and brands. Wickett, Gaskill, and Damhorst's Revised Apparel Retail Product Development Model (1999) shows the steps undergone in the traditional in-house product development process. This qualitative research study aimed to examine the use of Web 2.0 tools, specifically social networking systems, to conduct market research within the apparel product development process. Three research questions guided this study: 1) Are Web 2.0 social networking tools being utilized in product development processes? 2) What stages within the Apparel Retail Product Development cycle most benefit from Web 2.0 social networking tools? 3) What stages of innovation adoption in regards to Web 2.0 are seen in different apparel companies?

Ten apparel industry professionals were interviewed on the use of Web 2.0 social networking applications in their positions and within their firm. This non-probability sample responded to thirteen questions investigating the connection between apparel product development and Web 2.0 consumer data collection. Responses were analyzed and coded based on relevant themes and varying levels of adoption of Web 2.0 social networking tools into apparel product development processes were found. Designers were found to utilize blogs and social networking

the most for inspiration and information on target consumers. Small and developing apparel firms were the most innovative in their use of social media. It is inevitable that more apparel firms will utilize and adopt this new technology since social networking tools are becoming more wide spread. Fashion brands are taking note that this is an enhanced way to communicate with their consumers, and are joining websites such as Facebook and Twitter to create their own presence and engage consumers. This research examined the utility of Web 2.0 social networking systems to traditional apparel product development processes in the early stages of its adoption within the apparel industry.

Chapter 1

INTRODUCTION

Success in the modern apparel industry comes from anticipating the needs of consumers and responding with well timed, executed, and designed products (May-Plumlee & Little, 2006). Traditionally, to develop products, industry predicted apparel trends and consumer demand. But now, this process is being adjusted to better anticipate consumer desires, and firms value information directly from the target consumers themselves (Langley, Pals, Ortt, & Bijmolt, 2009).

Most of today's fashion is consumer driven. Market demand remains the most important factor in determining the success of a product. Unfortunately, consumers have become less brand loyal or predictable in their fashion choices (Crane, 2000). The modern consumer is highly fashion conscious and impatient, is skeptical of advertising, and is incredibly web savvy (Fiore, 2008). These characteristics make it increasingly difficult to track consumer tastes and indicate the need for new approaches in obtaining consumer purchasing preferences (Finlay, 2008).

A consumer-centered marketing orientation is one in which the products developed by a firm are created with a direct focus on serving the target market. Instead of merely producing a vast supply of products at the lowest prices possible, companies are realizing that to achieve high sell-throughs on the retail floor, firms

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must incorporate consumer desires in the product development stage, thus creating the clothing that best meets the consumers' needs (Jang, Dickerson, & Hawley, 2005). Apparel companies can find success despite the intensifying competition and choosy consumers in the marketplace by adopting a more consumer-centered approach to product development (Kincade, Regan, & Gibson, 2007).

So, how can apparel firms forecast what a highly fickle and fashion conscious consumer will want before they want it? When utilizing the consumer-centered approach to product development, companies can anticipate consumer demand by increasing market research and then incorporating the findings into the new product development process. Consumer focused research strategies such as focus groups or test marketing provide retailers with consumers' feelings and attitudes towards products. These primary data are increasingly valuable to successful development of apparel lines (May-Plumlee & Little, 2006). Unfortunately, focus group and test marketing is costly and is usually only conducted by companies in support of new initiatives (Weiner, 1994). Is there an inexpensive way that firms can acquire their target consumer's opinion of their brand and products? Yes - Web 2.0 provides the social networking tools that can allow apparel brands to listen to and learn from their consumers.

Web 2.0 is the second generation of the World Wide Web and contains web tools that allow content to be user-generated (Oberhelman, 2007). Web 2.0 can provide apparel firms with the ability to consistently tap into the consumer's consciousness and avoid the drawbacks presented by traditional consumer information

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gathering techniques. User produced fashion blogs and virtual communities such as MySpace, Facebook, and Twitter are offering businesses and consumers a new medium on which to talk about fashion and apparel purchases. If a company has a website enabling customers to comment about the apparel products, the apparel firm could also monitor and utilize the consumer review data in the product development process. Consumers' tastes change too quickly for companies to rely on sales figures or published periodicals. By using Web 2.0 tools, retailers can track the likes and dislikes of their target consumers who are online, and understand, up to the minute, the reason why styles are successful or not.

Web 2.0 tools have dramatically altered the way consumers gather, process, and share fashion information. User generated content on the Internet could provide the timely and accurate information necessary to understand the marketplace. Commercial chatting, blog mining, and crowdsourcing are new techniques of consumer data gathering that should be utilized by an apparel company with a consumer centered market orientation approach. These techniques could allow retailers to gather invaluable up–to-the-minute information on consumers' tastes that can help them make larger profits through more accurate merchandising and higher sell-through.

Apparel companies stand to benefit greatly from expanding their understanding of consumers' desires and innovative apparel firms are adopting new consumer centric product development strategies. Important technological advancements in the product development process have allowed for mass customization and improved data

collecting. These production strategies can improve the cost effectiveness and market receptiveness of a product (Kincade et al., 2007). To stay ahead of apparel trends, fashion forecasters, designers, product developers, and merchandisers should tap into the consumer fashion data available on the Internet.

Statement of the Problem

The apparel market has become highly saturated. Fashion brands and retailers are struggling to retain uniqueness among product offerings. New apparel product success is necessary for brands, and product development processes are being scrutinized more closely. The apparel industry is becoming more customer-centric by increasing its emphasis on market and consumer research. To ensure consumers respond favorably to new apparel offerings, apparel firms should analyze all consumer information available and utilize it within the product development process. Web 2.0 is a new source for apparel firms to tap into consumer fashion opinions. It is crucial to understand how Web 2.0 social media tools are currently being utilized and how this innovation is being adopted into the product development process.

Justification

Apparel industry leaders need to quickly and accurately anticipate consumers' desires. With outside factors such as increased global competition and economic fluctuations adding financial pressure to companies, it is more important than ever that apparel companies analyze and utilize all available consumer data and develop highly

demanded products that will positively benefit sales. The fast fashion industry relies heavily upon quick production to supply rapidly changing trend demands. The luxury fashion goods industry relies upon product innovation. These and many other types of firms in the modern fashion industry could be investigating what fashionable consumers are discussing on the Internet because there is a wealth of information regarding their tastes and desires. This knowledge and communication will allow firms to strengthen their connection with consumers and better stay ahead of fashion trends and innovations (Zinkhan et al., 2003).

It is important to understand if the fashion industry is currently utilizing the growing depository of consumer information available online to identify trends. The Internet is a growing vehicle for consumers to express their opinions and desires, and the Internet should be utilized as an avenue for finding out what the consumer will buy. "A repository of untapped fashion data is available . . . just waiting to be extracted to find the next real trend" (Rickman & Cosenza, 2007, p. 606).

Previous research has discussed the need for the fashion industry to monitor online sites for consumer information (Rickman & Cosenza, 2007; Thomas, Peters, & Tolson, 2007). The findings from this study could identify the utilization of Web 2.0 social media as a useful tool for apparel firms in their product development processes. This study may determine if monitoring online communities and blogs could be a new direction of fashion forecasting. Maximizing sales, minimizing risk to retailers, and quickly identifying the next successful trends is necessary in a dynamic fashion market. This topic has high relevance to the future of the fashion industry worldwide.

Research Objectives

There is little research connecting Web 2.0 tools and the apparel industry. Three research objectives were developed to further the exploratory nature of this research.

OBJECTIVE 1: To understand if Web 2.0 tools are currently being utilized by apparel product developers.

OBJECTIVE 2: To determine the processes within the Revised Apparel Retail Product Development Model where Web 2.0 tools could be most useful.

OBJECTIVE 3: To determine what stage, according to Roger's Innovation Adoption Theory (Rogers, 1995) that Web 2.0 social networking tools are being utilized by each firm for aid in apparel product development.

Research Questions

The research questions that drove this study were:

1. Are Web 2.0 social networking tools being utilized in product development processes?

2. What stages within the Apparel Retail Product Development cycle most benefit from Web 2.0 social networking tools?

3. What stages of innovation adoption in regards to Web 2.0 social networking tools are observed in different apparel companies?

Theoretical Framework

The degree of incorporation of social networking technology into an apparel firm's established product development cycle was analyzed in this study. The Innovation Adoption Theory was first presented by Rogers in 1962. This theory explained how and why innovations, or new ideas, spread through a society. Rogers discusses that innovations are adopted in a gradual and specific way through five phases or levels of adoption (Rogers, 1995). This theory is relevant to this study as Web 2.0 social networks tools present an innovative method to gathering information relevant to apparel product development. This qualitative research study aimed to discover if and how Web 2.0 social networking tools are used as an innovative strategy to support the aims of the apparel product development cycle.

Product development is the creation of products that will be sold to the target consumer (May-Plumlee & Little, 1998). While the exact steps of development may differ from company to company, most apparel firms have organized processes in place to collect consumer information for use in product development. Wickett, Gaskill, and Damhorst's (1999) Revised Apparel Retail Product Development Model (Figure 1) was used as a theoretical framework for understanding the generalized product development steps executed by an apparel firm and to visualize where in the process Web 2.0 tools might be utilized. The basic steps within the product development process include Research, Line Conceptualization, Product Evaluation, and Technical Development (Kincade et al., 2007). This model presents the internal

and external factors that influence the sequential product development processes within a firm.

Assumptions

The assumptions to this research were:

1. Industry professionals interviewed had some knowledge of the apparel product development processes of their current or past employer.

2. Industry professionals were at least familiar with the concepts of the Internet, Web 2.0 user generated content, and social networks.

Limitations

The limitations to this research methodology were:

1. Small Sample Size – only ten industry professionals were interviewed. A larger sample size would have provided a greater understanding of the use of Web 2.0 in apparel product development across the industry.

2. Limited Reach for Sample Gathering – The sample was gathered from a list of the researcher's professional connections and utilized snowball sampling for the best possible assortment. Ideally, a random sample would have been pulled from a list of product developers.

3. Location – Industry professionals from the greater Philadelphia and New York area were targeted as it was possible for the researcher to conduct these interviews in person. Interviews with apparel professionals nationwide would have provided a greater range in responses.

Chapter 2

REVIEW OF LITERATURE

Introduction

In the apparel industry, product development processes are the steps that assist apparel firms with the development of new apparel lines. Traditional forecasting methods heavily relied upon industry insight to identify what apparel trends would be in demand by target consumers. Unfortunately, consumer tastes have become more difficult to track since trends change so rapidly in a disposable fashion society. Web 2.0 social network services such as Facebook, Twitter, MySpace, apparel blogs and interactive websites are presenting a new forum for consumer discussions concerning fashion tastes and desires. As apparel firms continue to adopt new information to assist with product development, Web 2.0 networks are emerging as an inexpensive way to connect to the voice of the customer. This innovative consumer data collecting strategy could provide an inexpensive and timely alternative to traditional marketing research activities performed during apparel product development.

Apparel Product Development Processes

Product development is "the design and engineering of products serviceable for the target consumer, marketable, manufacturable, and profitable" (May-Plumlee &

Little, 1998, p. 342). Product development processes differ from company to company, but each firm has a system that is followed to help predict the wants of consumers and develop new products to supply their new demand. Traditional product development processes focused on production efficiencies and led to an oversaturated and homogenous market. As consumers became more selective and purchasing behavior became more difficult to anticipate, apparel firms realized that consumer demands should more heavily influence product creation as opposed to industry assumptions (May-Plumlee & Little, 1998).

Comprehensive product development is important to the success of new apparel products on the retail floor (Powell & Cassill, 2006). Apparel line development processes have expanded to encompass the input of not only designers and manufacturers, but merchandising and marketing executives as well (May-Plumlee & Little, 1998). Web 2.0 social network services could provide useful consumer data for the product development tasks accomplished by professionals within these positions. Wickett and colleagues (1999) conducted interviews with twenty-one apparel product developers and revised Gaskill's 1992 Apparel Retail Product Development Model. This updated model provided the theoretical framework for the present study, as well as the conceptual framework for a greater understanding of the apparel product development process.

Apparel Product Development

For many apparel firms, product development processes are linear, sequential, and revolve around a 9-month development cycle (Kincade et al., 2007). Apparel

firms run on a production based timeline around the seasonal release of basic and new products. Line development can begin 8-12 months before delivery, but for companies focused on the fast fashion cycle of constant newness, like Zara or Forever 21, apparel lines are continuously developed and adjusted throughout the season (Regan, 2008).

As a response to increasing competition and highly selective consumers, progressive apparel firms have adopted a consumer-centered product development focus, meaning the firms develop apparel lines from heavy analysis of consumers' tastes. "Many of today's global textile product companies headquartered in the US have shifted from a production orientation, with a focus on economies of scale and production efficiencies, to a marketing orientation which focuses on meeting consumers needs" (Powell & Cassill, 2006, p. 155). With this consumer centric production focus, the creation of innovative and successful new apparel lines (known as New Product Development, or NPD) is extremely crucial to the success of the firm (Powell & Cassill, 2006). In order to ensure new apparel lines satisfy consumer wishes, apparel firms are incorporating more market and consumer research throughout the product development cycle (Wicket et al., 1999).

Theoretical Framework

Wickett, Gaskill, and Damhorst's (1999) Revised Apparel Retail Product Development Model and Roger's (1995) Innovation Adoption Theory provided the

theoretical framework for this study. The product development model offers the structure for understanding the generalized steps conducted by firms executing apparel product development. Roger's Theory provides the basis for understanding how new innovations are diffused and adopted in a society, and here the theory will be used to understand how Web 2.0 social networking technology is being diffused and adopted into apparel firms.

Revised Apparel Retail Product Development Model

Wickett and colleagues (1999) created their Revised Apparel Retail Product Development Model after validating and amending Gaskill's 1992 Retail Product Development Model. This revised model shows the generalized sequential events that occur during the apparel product development process within an apparel firm. This revised model (see Figure 1) encouraged greater understanding of the design and development procedures followed by most apparel firms, as well as an understanding of the internal and external factors that influence apparel line development.

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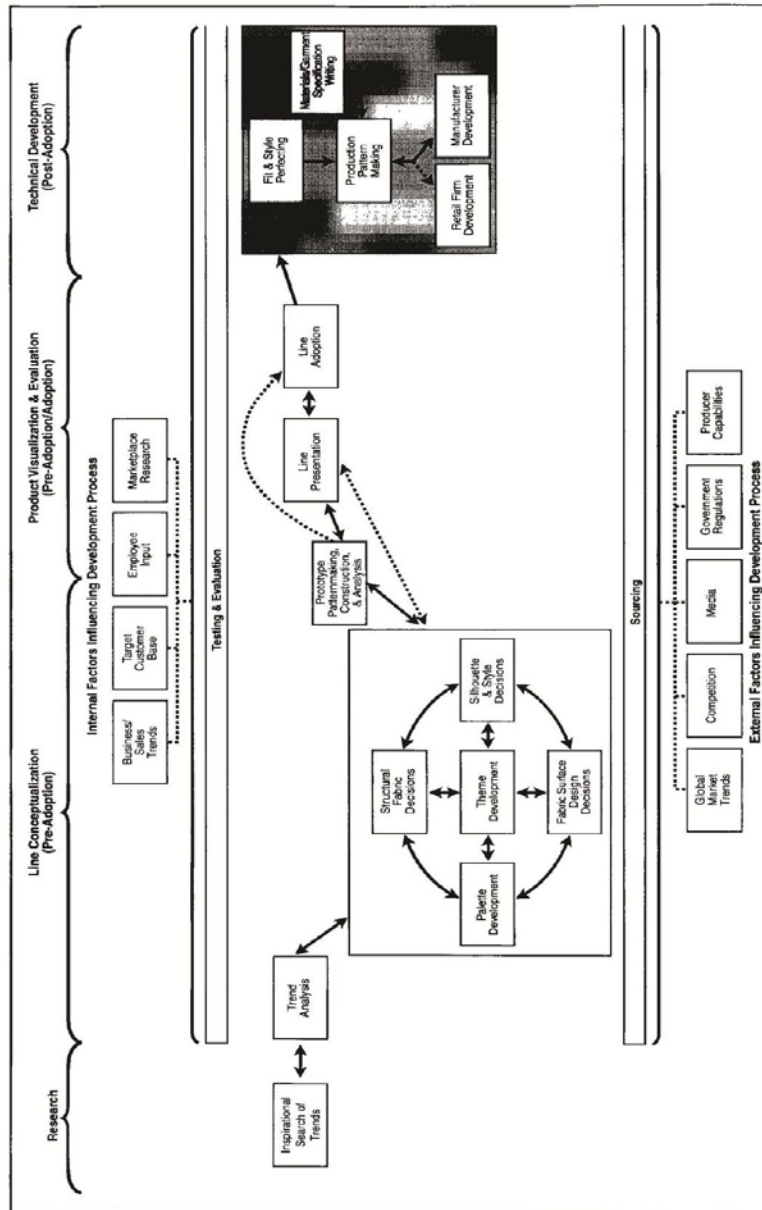
Solid lines denote the progression of apparel products through the development process.

Broken lines denote alternative development routes that may be taken.

▩ Denotes stages that may not be performed in-house by the retail organization.

Figure 1. Revised Apparel Retail Product Development Model. Used with permission.
Source: Wickett, Gaskill, & Damhorst. (1999)

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In Wickett et al.'s (1999) Revised Apparel Retail Product Development Model, the first product development step conducted by an apparel firm is the Research phase, which includes the Inspirational Search of Trends. Firms may collect market research, study street trends, and analyze color and fabric trend reporting in this preliminary step. After gathering inspirational stimuli, the apparel firm moves to Pre-Adoption processes which include Line Conceptualization and Product Visualization. During these phases, the apparel line theme is still highly conceptual but is developed through selection and approval of fabrics, silhouettes, patterns, and prototypes. During the Adoption or Product Evaluation phase, the line is presented and approved by the apparel firm. Finally, during the Post Adoption or Technical Development phase, line samples are fitted and perfected before the order is sent to production (Gaskill, 1992; Wickett et al., 1999).

In addition to showing the steps conducted by a firm, Wickett et al.'s (1999) model includes intervening factors that impact the process. The internal factors listed are Business/Sales Trends, or the sales report data collected; Target Consumer Base, or the profile of the group of consumers that the firm services; Employee Input, or the suggestions of professionals throughout the firm; and Marketplace Research, or the gathering of information on what is presented in the apparel marketplace.

External factors in Wickett and colleague's (1999) model are factors that the apparel firm is unable to control. These include Global Market Trends, or the understanding of international apparel trends; Competition, or the analysis of rival firms; Media, or communication on fashion; Government Regulations, or the

government imposed restrictions that can affect the apparel development or production process; and Producer Capabilities, or what the production factories are able to deliver for an apparel firm. Web 2.0 social media networks could be used as a source for information gathering within each of these phases, steps, and factors of the apparel development process.

Innovation Adoption Theory

The Innovation Adoption Theory, also called Diffusion of Innovation Theory, is presented by Rogers in his book, *Communication Technology: The New Media in Society* (Rogers, 1986). In this book, Rogers discusses the Diffusion of Innovations and says that "The main elements in the diffusion of new ideas are: (1) an innovation, (2) that is communicated through certain channels, (3) over time (4) among the members of a social system" (Rogers, 1986, p. 117). Rogers first developed this theory of Innovation Adoption through his doctoral research on farmers and the ways in which they adopt agricultural innovations, such as chemical fertilizers and hybrid seeds into their traditional farming practices (Rogers, 1986).

Roger's innovation adoption theory continues to be used in research wishing to identify the adoption behaviors in reaction to the presence of new technologies. He, Duan, Fu, and Li (2006) utilized a form of Roger's theory in their research concerning the adoption of online e-payments for companies in China. He et al.'s (2006) research utilized an online questionnaire to survey differing levels of management from several Chinese companies exploring adoption of e-payments. The researchers wished to investigate how managers' perceptions of the innovation affect the level of innovation

adoption by the firm. This study utilizes Roger's Relational Model to understand the relationships between innovation attributes and the rate of adoption of the innovation (He et al., 1996). These authors were concerned with analyzing and placing the managers and firms studied into five categories of decision making towards adoption.

1) Relative Advantage and Rate of Adoption – A higher perceived advantage towards adoption will result in a higher the rate of adoption.

2) Compatibility and Rate of Adoption – The more the adoption is compatible and in line with existing systems, the more likely it is that it will be adopted.

3) Complexity and Rate of Adoption – The more complex the innovation appears, the less likely it is that it will be adopted.

4) Trialability and Rate of Adoption – If the innovation can be tried and tested, the more likely it is that it will be adopted.

5) Observability and Rate of Adoption – The more clear the effects of the adoption are through observing it, the more likely it is that it will be adopted.

The findings from this study were that compatibility has the most influence over rate of adoption of e-payment by these firms. These results were also similar to another study utilizing Roger's Innovation Adoption Theory to analyze the role of managerial attitudes in the adoption of B2C (or Business to Consumer) e-commerce by an apparel firm. This article by To and Ngai (2007) is also concerned with how a firm chooses to adopt innovative technologies into their established processes, and thus is in line with the aim of this current study. Researchers To and

Ngai stated, "When management shows favorable attitude towards an innovation, the whole organization will be more likely to devote resources to making the adoption successful" (2007, p. 23). This research importantly analyzes the attitudes of potential adopters to understand the reasons why e-payment may be adopted or not by the managers of the firms investigated. These studies indicate the importance of managers and employees' perceptions towards technological innovations in order to enter into any level of adoption. This research also supports the current study because it is analyzing potential adoption of a technological innovation within a company, as opposed to studying the levels of adoption by consumers.

This current study is concerned with the innovation decision process that firms pass through to adopt Web 2.0 technology. Rogers defines this process as "the mental process through which an individual or other decision making unit [firm] passes from first knowledge of an innovation, to forming an attitude towards the innovation, to a decision to adopt or reject, to implementation of the new idea, and to confirmation of this decision" (Rogers, 1986, p. 118). Rejection of the innovation is possible. The following five steps describe the innovation decision process that was utilized to analyze level of adoption by the firms in this study. The first step of the process is knowledge, and thus participants must reach at least the first step to be involved in the innovation decision process at all.

1. Knowledge – initial exposure and gathering of information on innovation. The adopter comes in first contact with and begins learning about the innovation.

2. Persuasion – developing a favorable opinion of the innovation. The adopter

   begins to become familiar with the innovation and begins to perceive and be

   persuaded by the benefits or drawbacks of the innovation.

3. Decision – choice to incorporate innovation or not. The adopter, having

   analyzed the pros and cons of the innovation, now makes a decision to accept

   or reject the innovation. [at this point you could reject the innovation and not

   go through the next 2 stages]

4. Implementation – utilization of the innovation. The adopter begins testing and

   the innovation and incorporating it into established practices.

5. Confirmation – Assessment of results from innovation adoption. The adopter

   has already incorporated the innovation and can provide his/her assessment of

   incorporation of the innovation.

Roger's Innovation Adoption Theory (1995) provided the theoretical framework for Ko, Kincade, and Brown's study (2000). This research study surveyed 103 United States apparel manufacturers regarding their perception of benefits to the adoption of Quick Response technologies. The researchers focused on three stages of innovation adoption: persuasion, decision, and implementation in relation to Quick Response adoption by their sample of firms. The researchers found that the perception of benefits from QR strategies influenced the level of adoption into apparel business practices (Ko et al., 2000).

Johnson, Lennon, Jasper, Damhorst, and Lakner also applied Roger's Innovation Adoption Theory as their theoretical framework in their 2003 study. While the previously discussed research utilized Roger's stages of innovation, these researchers used the segment of Roger's (1995) theory which describes the characteristics of an innovation that can either aid or hinder its adoption (Johnson et al., 2003). Using quantitative research methods, these authors questioned 2,198 small community consumers regarding their beliefs regarding use of the Internet to purchase apparel, food, and home furnishing products. Johnson and colleagues found that small community consumers who had a history of purchasing products from the Internet perceived the innovation as being advantageous, more trialable, and perceived it as less risky than those respondents who have not purchased products through the internet (Johnson et al., 2003).

Product Development – Shared Responsibility

Product development processes are now being integrated into positions that have closer proximity to the retail floor (Gaskill, 1992). May-Plumlee and Little (1998) examined the phases of product development in an apparel firm and stated that new product development is a shared responsibility between 1) Marketing 2) Merchandising 3) Design and 4) Production teams. The benefit of incorporating development processes into more areas of the apparel business is that the product can be continuously improved by incorporating different levels of exposure to what is happening in the market and what the consumer wants (May-Plumlee & Little, 2006).

For example, merchandisers are influencing not only selection, but also design adjustments to apparel, using their knowledge of consumer tastes to create opportunities for increased sales volume (May-Plumlee & Little, 1998).

Improving Market Receptiveness

In the United States apparel industry, accepted changes to the product development or apparel line development process are those that either improve cost effectiveness of the manufacturing cycle or improve the market receptiveness of new products (May-Plumlee & Little, 1998). Market receptiveness, or consumer response to a product, has been found to be an especially important variable in determining new product success. Apparel merchandisers measure customer satisfaction by 'sell-through', the figure used to assess a product's success or failure (Jang et al., 2005). Successful product development must include consideration of the consumer's wants and needs. Continued improvements in product development are essential because presenting unique products and merchandise assortments is a way retailers can differentiate themselves and build consumer loyalty (Wickett et al., 1999).

Retailers and researchers have identified time to market and value to consumers as critical elements in determining market receptiveness (Cohen, Eliashberg, & Ho, 1996). Quick Response (QR) initiatives of the 1990s promoted fast fashion cycles and improved time to market for apparel (May-Plumlee & Little, 1998). Even with the systems in place to quickly manufacture and ship apparel, retailers

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needed to improve their understanding of consumer demand and market receptiveness to new products so that they can select the most effective products to place in the market (May-Plumlee & Little, 2006).

Forecasting and Market Research

To improve the value of new products to consumers, and ensure market receptiveness, traditional product development processes have been altered. These processes now incorporate more consumer information which is collected through quantitative and qualitative research techniques. Forecasting and market research are tools that can aid retailers in understanding and better anticipating the purchasing behavior of their target consumers (May-Plumlee & Little, 2006).

To the fashion industry, forecasting refers to the act of collecting data to predict demand for a product (May-Plumlee & Little, 2006). The traditional method of forecasting used in the apparel industry depends on secondary data and industry expert opinion for input in development of a new product (Weiner, 1994). Buyers create an estimate for unit demand and fill stores with brands or labels developed by manufacturers. When forecasting unit demand for the next season, many United States apparel companies look to the Delphi method, where merchandise planners and buyers predict the sales potential for new products (Weiner, 1994). To forecast fashion trends, industry professionals may collect fashion information through such activities as "reviewing trade publications and popular literature, subscribing to color

and fashion trend forecasts and shopping the market" (May-Plumlee & Little, 2006, p. 57).

Consulting firms that focus on forecasting, such as the Doneger Group, are sought out for their services in acquiring market trend information for the use in product development (Flynn & Foster, 2009). Accurate Response (AR) is a forecasting approach that uses Point of Sale (POS) data to validate estimated demand for highly unpredictable products. This system builds upon the QR initiatives to quickly forecast, manufacture, and ship the necessary products (Flynn & Foster, 2009). The common drawback of these varied forecasting techniques is the absence of the consumer voice. Industry experts predict consumer desire while the consumers themselves have minimal, if any, direct input (May-Plumlee & Little, 2006).

Consumer input is a necessary element in the development of successful, innovative apparel products (Jang et al., 2005). Relying on secondary consumer data collection for forecasting can be useful for predicting the demand for staple products, but this system presents problems when applied to innovative or newly presented apparel products. Firstly, the apparel industry relies on freshness as a competitive advantage and consumer tastes change too often for past data to be relied upon for decisions (Langley et al., 2009). Retailers in the luxury industry, for example, where competition is heavily based on "newness" and innovation in apparel product development, are tied to target customer acceptance of the innovation for it to be a success and should have consumer input in the development process.

Secondly, statistical data does not provide reasons as to why products were a success or failure on the selling floor. Qualitative strategies of market research were originally a preliminary step in the data collection process (Weiner, 1994), but consistently collecting qualitative consumer data can indicate ways in which merchandisers can maximize selling of products already on the floor or slightly improve them for the next selling season. In his groundbreaking book *Why We Buy*, Paco Underhill, a self proclaimed retail anthropologist, gives the example of underperforming concealer in the cosmetics section of a drugstore. While sales reporting could only show that the concealer was not selling well, upon doing observational research, Envirosell, Underhill's retail analysis company, realized that the main consumer of the concealer was older adult women, but the concealer was placed too low for them to comfortably access the product (Underhill, 2009). Quantitative and qualitative strategies must both be utilized to fully understand consumer desires and affect consumer behavior on the retail floor.

Quality Function Deployment (QFD) is an advanced forecasting method developed by Japanese manufacturers in the 1970s. QFD combines consumer information into the product design and development process, identifies quality characteristics to the target consumers, and then formulates them into a series of matrices and tables to be followed as parameters for production (May-Plumlee & Little, 1998). Even this progressive consumer-focused product development strategy relies upon secondary data collection - the previously acquired consumer information, or the past 'voice of the customer' (Raharjo, Xie, & Brombacher, 2006). This is a

major flaw in the QFD system because it may identify variables that have changed by the time the product is ready for the market.

Firms can conduct primary data collection and analyze information provided by consumers through market research processes such as focus groups, limited rollout, concept tests, and style testing. Unfortunately, focus group and test marketing is costly and is usually only conducted by companies in support of new initiatives (Weiner, 1994). Apparel companies stand to benefit greatly from expanding market research as greater understanding of consumers' desires can be correlated with improved profitability for a company. In a study of new products presented in the chemical industry, it was found that projects that had more background analysis, including market demand assessment, achieved a 43% higher success rate and displayed increased profitability and reduced cycle time compared to projects that had less supporting market research (Cooper, 1994).

Characteristics of Modern Consumers

Fashion is an important marker of the values, attitudes, and norms of the individuals within our society (Henry, 2001). The modern consumer has been described as one who is highly fashion conscious, fashion impatient, has little brand loyalty, is skeptical of advertising, and increasingly web savvy (Henry, 2001; Fiore, 2008). These characteristics have important relevance to the current product development strategies of apparel businesses. Researchers and retailers have discussed a shift in the way that individuals consume, think about, and react to fashion

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with the growth of the Internet and new media outlets (Fiore, 2008; Kim & Johnson, 2009a; 2009b).

Fashion Consciousness/Impatience

Current consumers have been found to be highly fashion conscious (Henry, 2001; Wan, Youn, and Fang, 2001). This means that they are very involved in their clothing choices and aware of what is the "right" or "wrong" look at any particular moment based on societal fashion trends (Henry, 2001). Wan, Youn, and Fang (2001), in their research on predictors of fashion consciousness, found that women and younger consumers have higher levels of fashion consciousness than men and older consumers respectively. Fashionability is an easily identifiable characteristic of the young consumer set, but it also rings true with other market segments.

In a study analyzing the fashion consciousness of mature female consumers, researchers found significantly more respondents with a higher fashion consciousness than lower fashion consciousness (Nam et al., 2007). These authors also compared the fashion perceptions of younger and mature adults and found that while the cohort groups differ in their opinions of what is fashionable, they both see fashion as important. This prompted the authors to warn there is not a one-style-fits-all definition of fashion, implying the need for further understanding of what factors define fashion for different fashion conscious consumer groups (Nam et al., 2007).

Consumers are also fashion impatient. They quickly grow bored of fashion styles and desire a new look nearly the instant they have purchased and worn the previous look. Friede (2007) explains this disposable fashion society as a place where

consumers "like it today, but don't like it tomorrow" (p. 1). These consumer characteristics of fashion consciousness and impatience inspired the quick response systems of the 1990s and continue to propelled the growth of the fast fashion industry (May-Plumlee & Little, 2006; Friede, 2007).

Web Savvy and Lowered Brand Loyalty

"The new media environment is associated with an explosion in information content and an expansion of consumer choice" (Henry, 2001, p. 126). The Internet has greatly expanded apparel consumer's options. For example, entering 'white t-shirt' into a Google.com search on November 1, 2009 brought up over 45,200,000 different websites with white t-shirts for sale (http://www.google.com/search?hl=en&client=firefox-a&rls=org.mozilla:en-US:official&hs=JgU&ei=yJMAS82OMYfjlAfD_LmICw&sa=X&oi=spell&resnum=0&ct=result&cd=1&ved=0CBEQBSgA&q=white+t+shirt&spell=1).

Modern consumers are increasingly web savvy and have taken advantage of the ability to analyze and evaluate the product online before purchase (Henry, 2001). This use of the Internet as a tool for comparison pre-shopping is one explanation for the difficulty that retailers are facing in maintaining consumer brand loyalty. It is now more difficult for an individual apparel company to compete along similar product offerings since consumers can use the Internet as a resource for price and quality comparisons. "Loyal consumers are extremely responsive to advertising, while the indifferent ones continue to be extremely price sensitive" (Chioveanu, 2008, p. 76).

Skeptical of Traditional Advertising

The highly competitive free market encourages advertising exaggerations. Obermiller and Spangenberg (1998) recognized the need for a scale to measure the range of belief or doubt in an advertisement's claims. They define skepticism towards advertising (ad skepticism) as a tendency to disbelieve "the truth of advertising claims, the motives of advertisers, the value of the information to the self, or the appropriateness of advertising for specific audiences" (Obermiller & Spangenberg, 1998, p. 160).

Word-of-mouth (WOM) advertising is defined as the informal communications of one consumer to another regarding the use of products. A construct of consumer satisfaction, word-of-mouth advertising has been identified as one of the most effective forms of advertising (Matos & Rossi, 2008). Modern consumers are seeking out product information from multiple information sources before, during, and after purchase. "If they can get immediate answers by talking to a friend, perceived expert, or a credible sales person, this is where they will gravitate" (Henry, 2001, p. 130).

A new form of WOM communications, called Electronic Word-of-Mouth or eWOM, is now being studied to understand the effect of consumer recommendations delivered online. Web 2.0 technology allows for the free dialogue about products and services and is also a strong way that WOM communications and recommendations are transmitted. Consumers are drawn to product information available online for multiple reasons, but are primarily attracted because of the ability to immediately access of a variety of product information from a range of sources. When studying the

effect of eWOM delivered through online consumer reviews, Park, Lee, and Han (2007) found that quality reviews positively affect consumers' purchasing intention.

User Generated Media - Web 2.0

There were over 1.6 billion people worldwide using the Internet in 2009 (http://en.wikipedia.org/wiki/List_of_countries_by_number_of_Internet_users). Web 2.0 tools and applications enable these people to connect with each other, as well as connect to brands, products, and services. Web 2.0 refers to web design that enables users to interact, create content, and share information online. The term was coined by Tim O'Reilly and Dale Dougherty at the first Web 2.0 Summit in 2004, to describe the turning point, in 2001, when web developers presented progress in data storage, web design, and computer technology (http://en.wikipedia.org/wiki/Web_2.0). These advancements gave way to new applications that allowed users to share information across massive networks and encouraged user collaboration with the web (Henry, 2001). Although World Wide Web inventor Tim Beners-Lee and others have challenged the term by calling it merely "jargon", no one disputes that user generated applications have changed the way that consumers and businesses interact online (Henry, 2001).

The two major types of user generated web applications are social network services and blogs. These two differ in their structure, as a social network service is developed by a group wishing to build an online community around shared interests requiring individual users to join, while blogs are user created and user maintained

websites not requiring membership. Facebook, MySpace, and Twitter, which were

ranked in 2009 by Compete.com, a web traffic analysis service, as the most used

online social networks, will be discussed (http://blog.compete.com/topics/compete-

top-10/). Within each these social networks are millions of users who make up a

virtual community, or a group of people who interact virtually as opposed to face to

face (http://en.wikipedia.org/wiki/Virtual_communities).

A blog, a term created from the word "weblog", is a Web 2.0 tool

allowing users to create and maintain their own websites. The blog writer can create

entries surrounding any context and users can read the entries and comment

accordingly. Signature-9.com ranks worldwide style (i.e., fashion) blogs and quarterly

produces a list of the top 99 blogs based on number of page views, number of users

that bookmark the blog, update frequency, links on the Internet search engine

Yahoo.com , and content and design (Signature-9, 2009). In December 2009, the five

most influential blogs listed by Signature-9.com were "The Sartorialist"

(www.thesartorialist.com), "High Snobiety" (www.highsnobiety.com, "The Cut"

(www.thecut.com), "Fashionista" (www.fashionista.com), and "Stylelist"

(www.stylelist.com). Understanding the Web 2.0 consumer information landscape is

an important first step in understanding how these communication tools can assist with

apparel product development.

Virtual Communities – Facebook, MySpace, and Apparel Websites

Virtual communities (VC) of users within a social network have power over

consumer behavior because they offer an instant medium for commercial chatting

(Zinkhan et al., 2003; Thomas et al., 2007). Commercial chatting includes consumer-to-consumer chatting and business-to-consumer chatting. Consumers communicate heavily on the Internet using online chatting functions that are made available through many commercial websites and applications. When analyzing online activity in 2003, America Online (AOL), a major Internet service provider, reported that "10 million consumers spend approximately 25% of their online time engaged in web-based chatting in one of 18,000 chat rooms" (Zinkhan et al., 2003, p. 17). This communication contains an abundance of information on consumers' desires and presents an opportunity for the most influential form of advertising - word-of-mouth persuasion (Matos & Rossi, 2008).

Consumers enjoy web-chatting in virtual communities because this presents a convenient and inexpensive way to communicate (Zinkhan et al., 2003). Consumers can immediately obtain information by reading posts surrounding a product or by asking other users about their experience. Consumption-related virtual communities present an easy way for consumers to share their involvement with a specific activity, such as shopping for apparel. Facebook and MySpace are two popular social network services that have virtual communities with forums (spaces for web-chatting within the VC) dedicated to apparel brands, shopping, and fashion.

In 2004, Facebook (http://www.Facebook.com) was created by a group of Harvard undergrads as a way to connect with other students on campus. This networking site has grown exponentially and today boasts over 300 million active users and was ranked in January 2009 as the most used social network

(http://www.compete.com; http://www.Facebook.com/press/info.php?statistics).

Facebook is primarily a social network, but it also allows users to create and join

groups like a virtual community and post accounts similar to a blog.

MySpace (http://www.MySpace.com) is one such virtual community created in

2003 to connect people worldwide who share common interests and activities.

MySpace claims more than 100 million member profiles and allows for social

networking, which is when users permit friends to join their network. MySpace also

has open forums where members can post information on their interests and opinions.

As of October 2009, there were 22 forum categories in MySpace, and one of which

was dedicated to fashion. Within this fashion category, over 2,000 public groups

created by users discuss fashion. The members of this MySpace forum share

information ranging from their personal style, favorite brands and retailers, and

opinions on trends (Thomas, Peters, & Tolson, 2007).

Opinion Leaders - Fashion Blogs and Twitter

Blogs are "a new medium for discussing, promoting, and selling fashion

brands" (Soo, 2007, p. 6). Web 2.0 has elevated opinion leaders to the level of

perceived experts, and blogs, in particular, are leading the way towards the modern

democratization of fashion. "The business of setting fashion trends used to be an

elitist world where designers, fashion editors and buyers decided what was hot for the

coming season, but those days are over" (Soo, 2007, p. 6). Blogs are intimate forums

where a user creates a post (an entry in a blog or forum) and others can view and

comment their opinions. The biggest advantage of blogs over traditional fashion

media, such as magazines, is that blogs can be published immediately, reacting

instantaneously to new collections, trends, and fashion news. "Sometimes, by the time

magazines get to it, the trend might be over" (Soo, 2007, p. 6). There are thousands of

fashion blogs on the Internet and popular sites can receive over 100,000 visits a day

from consumers who can read a user's point of view then comment their reaction

(Soo, 2007).

Consumers are also utilizing blogging as a tool to chronicle and share their

fashion interests (Rickman & Cosenza, 2007). For example, in Tokyo, fashion leaders

like the iconic "salesgirls" or, *karisuma tenin*, share their fashion opinions with a

wider audience through the use of blogging. Taking on the role of fashion marketers,

these "salesgirls" created weblogs and provide advice on where to acquire trendy

items and how to coordinate pieces to achieve the most fashionable look (Kawamura,

2006).

Arguably the most successful fashion blog to date, "The Sartorialist"

(http://thesartorialist.blogspot.com) is a photo blog created by Scott Schuman in 2005.

This blog claims over 50,000 viewers a day and contains portraits of real people on the

streets of New York, London, Paris, and Milan (Carter-Morley, 2007). While

Schuman maintains he is not a trend forecaster and only a style hunter, his blog of the

street style of fashionable urbanites has been hailed as essential industry reading –

Natalie Massenet, founder of *Net-a-Porter.com*, an online shopping mall, Clare

Coulson, fashion editor of *Harper's Bazaar*, and Cynthia Searight, creative director of

Self each report viewing the site on a regular basis and Schuman has been listed as one

of the most influential figures in design by *Time* magazine (Carter-Morley, 2007).

Blogs are purely opinion and usually from one source who has a degree of experience and knowledge in the field. There are several sites dedicated to ranking the reliability and influence of fashion blogs. One of which is Signature-9 (http://www.signature9.com/style-99), which provides a quarterly list of style blogs organized by a sophisticated ranking methodology analyzing general content quality, popularity and buzz.

Twitter (http://Twitter.com) is a micro-blogging tool created in 2006 by Jack Dorsey. Twitter users send and receive short (140 character maximum) messages, called tweets, from their followers on any subject matter. Twitter is becoming particularly influential in the fashion industry, as users are able to tweet any time anywhere, and for example, providing up to the minute updates on fashion news, trends, collections, sales, and designers. "Twitter speeds up the emergence of fashion trends, and its influence on the fashion industry is set to last long after the buzz around the international fashion weeks has died down" (http://hipsquare.wordpress.com/2009/03/19/30-fashion-Twitter-feeds-you-shouldn%E2%80%99t-be-without/).

Technology in Apparel Production

Advancements in technology have been integrated into the new apparel development process with the aim of increasing the competitive position of an apparel firm (Istook, 2002). Adopting consumer centric strategies of product development can

assist a firm in developing the right product at the right time for their target customers

(Kincade et al., 2007). Recent technological advancements in apparel production have

focused on improving mass customization and consumer data collection. These

advancements are paving the way for future collaborations between technology and

the new apparel development processes.

Mass Customization and Consumer Data Collection

Mass customization refers to the combined use of computer-aided

manufacturing systems and traditional mass production processes to service individual

needs (Lim, Istook, & Cassill, 2009). Mass customization heavily relies upon

incorporating the consumer's wishes into the product development process. "A

customer co-designs a product with a design advisor using software templates and

body scanning technology" (Kim & Johnson, 2009b, p. 269). Apparel companies,

such as Levi Strauss in California, began exploring mass customization in the 1990s,

and the concept continues to be an important frontier for many industries. Mass

customization processes present a way that apparel firms can meet customers'

differentiated needs in an efficient and low cost way. Personalization has been

identified as a variable that adds value for a consumer and through mass

customization. This variable allows consumers the ability to personalize the style, fit

and color of the clothes they buy (Lim et al., 2009). Progressive apparel developers

aim to seamlessly integrate individual consumer demands directly into the product

development process, and continue to explore rapid prototyping, body scanning, and

other innovative processes that led to the personalization of apparel products (May-Plumlee & Little, 2006).

Body scanning and Computer-Aided Design (CAD) are two important information technology processes within the mass customization system. 3D whole body scanning systems measure the surface of the body through an optical triangulation of light and shadow in a cylindrical room (Istook & Hwang, 2001). Body scanning allows retailers to obtain precise digital body measurements that can be quickly processed for accurate fit. Body scanning has the potential to redefine the apparel industry through the improvement of sizing systems (Istook & Hwang, 2001). In their discussions with apparel industry professionals, Kim and Johnson (2009a) found that body scanning is expected to improve the design and product development process.

CAD/CAM, or Computer-Aided Design/Computer-Aided Manufacturing allows retailers to quickly adjust design factors to add value to customers (Lim et al., 2009). CAD/CAM processes work with the mass customization system through immediately processing body scans or measurements for the drafting or adjustment of patterns that can create a precise fit (Istook, 2002). CAD/CAM systems have been found to significantly reduce lead-time, increase productivity, and have been implemented in research studying production techniques that can improve garment fit (Ashdown & Dunne, 2006). As online shopping expands and consumers continue to demand personalization, mass customization will continue to be an essential variable of progressive product development strategies.

Information technology allows retailers to gather consumer data and is essential to the evolution of apparel production (Kim & Johnson, 2009b). Point-of-Sale (POS) collection technology is one example of technology that has been widely adopted in the apparel industry for the continuous collecting of consumer data at the register. "The capture of POS data relies on the use of software, scanners, and a universal product code (UPC) in order to capture data regarding style, size, and color" (Keiser & Garner, 2008, p. 83).

This sales data can be interpreted and used in various ways within an apparel firm. Theory, a high-end apparel firm, incorporated SKYPAD into their product development processes in 2007. This business intelligence software developed by Sky I.T. delivers information at the SKU level; enabling sales chain visibility and increased forecasting efficiency (Guillot, 2009). Beyond using these data to generate sales figures or to forecast unit demand, advanced POS technology can also enable retailers to quickly react to store inventory levels through automatic or attribute replenishment programs (Fiore, 2008; Keiser & Garner, 2008).

Advantages of Using Technology in Apparel Production

Industry leaders continue to search for new ways to connect with consumers and anticipate their purchasing behavior, and retailers are noting the necessity of incorporating new technology into long established business practices. Kim and Johnson analyzed essays from 62 apparel industry professionals and reported, "information technology will produce a competitive advantage through improved productivity, performance, business expansion and reorganization, and will be a

crucial factor to determine both individual and institutional power for the future"
(2009b, p. 1361).

Digital technology can be highly useful as a communication tool to build a
mutually beneficial relationship between a company and its target consumers. The
results of this partnership may be the creation of products that better match consumer
desires and an increase in consumer loyalty (Fiore, 2008). Technological
advancements opened the gateway to a new channel of retailing, online shopping, but
technology can also be used to increase the efficiency of other areas of the apparel
business. Key advancements in mass customization and consumer data collection
indicate the connection between product development success and technology.

In order to stay on top of consumer trend changes, product developers across
functional areas could be seeking out consumer information available on the Internet.
User-generated content on the Internet provides information on consumers' wishes,
needs, and feelings towards a company or their products. "It [the Internet] is a true
information oasis which allows access without great expense, so that even small
companies can be more competitive" (Cone & Perry, 2002, p. 273). Networks created
on a company's own website, user created blogs, virtual communities, and Facebook
and Twitter applications can provide forums to access consumer reactions, and these
can be used to collect consumer, market, and trend data. This is an improvement from
current market research methods because focus groups, product testing, or outsourcing
trend research are costly to apparel firms, while digital information gathering has a
low cost to the company. Finally, incorporating consumer information gathered from

the Internet gives apparel firms a chance to understand the moment consumer tastes change, thus reducing the time to market necessary for successful product development.

Using Web 2.0 Applications in the Fashion Industry

Web 2.0 applications have dramatically altered consumer behavior, but can also grant retailers opportunities to access and gather consumer information. This information could prove useful in the development of new products. Web 2.0 applications also present retailers with an opportunity to strengthen brand perception and consumer brand loyalty with potential and existing customers (Perry & Shao, 2003). Web 2.0-aided market research improves the efficiency and effectiveness of data collection, but there are still tradeoffs that must be evaluated and weighed (Wymbs & Pettit, 2003). Previous research reported the necessity of conducting market research in the development of new apparel products (Jang et al., 2005; Powell & Cassill, 2006). Studies have identified the Internet as a source for conducting market research in the electronics, advertising, tourism, book, and household chemical industries (Perry & Shao, 2003; Wymbs & Pettit, 2002).

Using Commercial Chatting for Market Research

A great deal of communication about products occurs within a virtual community. This commercial chatting can occur between consumers, a consumer can talk to a business, and a business can talk to consumers. Commercial chatting within virtual communities contains valuable information on consumers' preferences - why

they like certain brands, products or styles over others, why consumers have changed their mind about a trend, or what new trend is emerging - and could be the primary resource for the consumer data necessary for successful product development. Commercial chatting presents an opportunity for businesses to connect with consumers on a large scale and will be discussed as a tool that could assist with the gathering of consumer data.

The open communication regarding fashion tastes occurring in virtual communities such as MySpace and Facebook should be monitored by the fashion industry. "Consumer behavior within virtual communities, such as MySpace.com, represents a complex, multi-layered, iterative process that includes learning, alternative evaluation, and posting feedback, all of which focus on the sharing of a diverse set of fashion-related information" (Thomas, Peters, & Tolson, 2007, p. 600). Commercial chatting presents a solution to assessing consumer purchase behavior, and virtual communities are increasingly used in social research because of the ability to reach a large sample of consumers at a low cost (Illum, Ivanov, & Liang, 2009). If an apparel firm were to conduct market research and interview consumers, it would cost an average of $60 per person to distribute questionnaires or conduct focus groups, but on-line surveys cost about $0.25 per person - a 99% savings on gathering consumer information that increases when international marketing costs are factored (Wymbs & Pettit, 2003).

Timing is also a factor in the growing popularity of virtual communities as a vehicle for conducting consumer research. Conducting online polls takes around three

weeks while traditional mail surveys may take three months to distribute, collect, and assess (Wymbs & Pettit, 2003). In their analysis of web-based chatting regarding tourism, Illum and colleagues (2009) found frequency of web-chatting was positively correlated with risk taking and opinion leadership. This has important implications for the fashion industry because apparel companies could gather information on consumers who are fashion leaders and encourage them to spread their brand loyalty to others through word-of-mouth. "If marketers can reach the individual who is a frequent chatter, then they may indirectly reach his or her friends and family through word-of-mouth" (Zinkhan et al., 2003, p. 25). Apparel firms could easily question users in a virtual community about the color they think will be most popular for spring, for example, and very cheaply and quickly assess the preferred colors of consumers who are fashion leaders and would be most likely to purchase the new product and influence others to do the same.

Unfortunately, collecting consumer information from virtual communities presents a methodological issue regarding sampling, bias, privacy/confidentiality, and response rate (Illum et al., 2009). If multiple virtual communities are used to collect data, researchers must also be concerned with double counting – the same respondents complete the survey multiple times. Sampling is a particularly large issue because researchers have issues with confirming the demographics of consumers frequenting virtual communities. Teenage Research Unlimited reports that 81% of young people use the Internet and chatting is the number one activity for those youngsters online (Zinkhan et al., 2003). While it is true that younger, Internet-savvy consumers make

up much of the online landscape, adult consumers of various ages can also be found in social networks and online chat rooms. In a study of web-based chatting, researchers reported that the majority of their respondents were between 16 and 40 years old, and 70% were male (Zinkhan et al., 2003). In order to obtain the most relevant information for their brand, apparel firms should ensure that the virtual communities they monitor are filled with users within the age, lifestyle, and interests that align with their target consumers.

Despite the sampling issues, Wymbs and Pettit (2003) believe that online consumer research will continue and findings will be validated as more of the general population becomes Internet users. More recently, Illum and colleagues (2009) discovered a diverse sampling pool using web-based surveys and reported that their findings were consistent with those gathered using traditional research methods. Another drawback to collecting survey information is the development costs of creating or purchasing the software needed to set up and analyze survey data. Despite these costs, the cost per contact is so low that this method is financially preferable over others (Illum et al., 2009).

While MySpace and Facebook are consumer controlled virtual communities allowing for only objective marketer information, apparel companies can develop their own web chatting forum to be held on their website. Business-to-consumer chatting has mainly focused on customer care, but utilizing this type of communication to inform consumers about specific products, services, or promotions can strengthen brand image and brand loyalty (Zinkhan et al., 2003).

Apparel companies are not currently maximizing the potential of the relationship that can be built through commercial chatting with consumers. In 2006, Kim and Jin analyzed over 2,500 websites from apparel retailers and found only thirteen had virtual communities. In a study of fashion and style virtual communities on MySpace, researchers found that if an apparel company participated (chatted) within the community, this activity would encourage consumer trust and loyalty in a brand. "By becoming members of these types of communities, fashion marketers could better understand trends, conduct informal market research, observe word-of-mouth in action, and even recruit brand advocates" (Thomas et al., 2007, p. 600). Virtual communities provide consumers with advice, affecting both their opinion of brands and their consumption behavior (Illum et al., 2009).

Web Mining Blogs for Research

"Trend watching and word-of-mouth monitoring through the Internet are important tools for keeping up with today's fashion conscious, fickle consumers" (Thomas et al., 2007, p. 588). Tapping into online discussions on fashion is necessary for retailers needing to acquire an advantage over quickly revolving apparel trends. Blogs are also useful to industry leaders because they contain the honest reactions of the blogger and his or her readers, who are the target audience and potential consumers of brands. Blogs contain information highly valuable to retailers and can provide insights into public opinions (Thelwall & Hasler, 2006). One drawback to utilizing consumer information available on blogs is the initial work finding an appropriate blog to follow and analyze. There are numerous blogs with different

publishing styles and primary audiences. For example, some blogs only contain photos of the style of individuals on the street, others show the style of industry icons like models, designers, and celebrities, and others could contain images of just the product - either on invisible models or pictured flat. An apparel firm should analyze content and users to ensure that a particular blog will be a true testament of their target's opinions (Soo, 2007).

Web mining is automated searching of the web and can be an essential tool for companies involved in the development of new or innovative products (Engler & Kusiak, 2008). Web mining is a way that companies can utilize user reviews for the creation or updating of a product (Engler & Kusiak, 2008). This tool may be a very efficient method of extracting useful consumer information from the vast number of fashion and style blogs on the Internet. Web mining is a new information technology tool that has the potential to radically alter the way that companies can access consumer data.

There are two methods of web mining: focused and unfocused web crawling (Engler & Kusiak, 2008). The web mining method that would be most effective for apparel firms is focused web crawling. As opposed to unfocused web crawling which requires massive hardware as it searches all pages of the Internet, focused web crawling searches through pages related to a specific command query (Engler & Kusiak, 2008). Nielsen Media Research is a firm which conducts ratings for the media, including television, film, and digital media. Nielsen's BuzzMetrics service uses information technology such as web mining to develop services that can assist

companies with analyzing online consumer discussions (http://en-us.nielsen.com/tab/product_families/nielsen_buzzmetrics).

Apparel companies could use Nielsen's expertise in helping them mine useful information from fashion blogs. Rickman and Cosenza (2007) analyzed the application of web mining for the forecasting industry and found that text mining matrices could help retailers identify apparel trends in the making. The authors used Nielsen BuzzMetrics' Blogpulse Trend Search (www.blogpulse.com), a free tracking system that creates graphs indicating the growth and decline of blogosphere discussions on specific key words in their data collection (Rickman & Cosenza, 2007). By analyzing a graph of the query "jeans, conservative, and revealing", for example, the authors were able to indicate that the coupling of jeans and conservative was creating the most "buzz" since those line graphs were most closely linked over time (Rickman & Cosenza, 2007).

Nielsen's BrandPulse is another web mining tool that tracks mentions of a brand's name (Thelwall & Hasler, 2006). Apparel firms could use these examples of focused crawling to search through sites for mentions of their brand name, their competitors, or specific apparel categories, such as jeans, or trends, such as bohemian chic. This type of analysis would be useful for apparel developers as it would provide insight on emerging fashion trends and the reaction of their target audience to this trend.

Tracking and Crowdsourcing Twitter for Research

Twitter is becoming a powerful tool to assist businesses with solving problems and providing insights and reviews of apparel products that is necessary for the improvement or existing products or the creation of new ones (Graham, 2008; Miller, 2009). Tracking mentions of a brand and crowdsourcing are two ways that Twitter could be used for market research. Mike Hudack, CEO of Blip.tv, a New York-based video website told reporters, "In the past, companies would hire a market research firm to understand their audience. Now we use Twitter to get the fastest, most honest research any company ever heard - the good, bad and ugly - and it doesn't cost a cent," (Graham, 2008, p. 1). Twitter can provide companies with information such as what customers like or dislike about products, how the product is being customized by consumers, and why marketing techniques are successful or not. The information on Twitter about a brand and its products should be monitored as it can assist with the improvement or development of more successful products. For example, "Dell noticed customers complaining on Twitter that the apostrophe and return keys were too close together on the Dell Mini 9 laptop. So Dell fixed the problem on the Dell Mini 10" (Miller, 2009, p. 1).

Twitter recently launched a search engine (http://search.Twitter.com). This will allow apparel firms to track mentions of their name or discussions on specific items like "black dress" or "dark jeans". Style.com, the online home of *Vogue*, created a Twitter Fashion Feed that reposts the fashion tweets from influential publications like *Women's Wear Daily* or fashion icons such as models (e.g., Chanel

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Iman) and specific design houses (e.g., Yves Saint Laurent)

(http://www.style.com/stylefile/2009/09/introducing-the-fashion-feed-Twitter-may-

never-be-the-same-again). The Style.com Twitter Fashion Feed provides an example

of how apparel firms could track fashion trends. For example, the Style.com Twitter

could tweet that Ralph Lauren is trending at that moment, and when clicking on the

link provided, the user is sent to a page listing the different Twitter users who were

tweeting about Ralph Lauren in that moment.

Twitter could provide retailers with information regarding their target

consumers through the use of crowdsourcing. Crowdsourcing is the act of creating a

poll/ survey and using a crowd/ group of people as a source or resource in making an

executive decision (http://en.wikipedia.org/wiki/Crowdsourcing). Using

crowdsourcing on Twitter is a way apparel firms can immediately access their

audience and is a no cost alternative to traditional market research methods (Kirsner,

2009). For example, Zappos.com, the leading online shoe retailer, tested their new

site, Zeta.zappos.com, on Twitter, and used the responses from tweeters to make

further improvements before the site was launched to the public (Graham, 2008).

Fashion Houses and Social Networking

As of November 2009, two major luxury fashion houses have made news announcing the launch of a calculated marketing presence on the online arena. Yves Saint Laurent was in financial trouble until mid 2009, but has embraced the new generation by entering the online social network landscape. The Parisian brand launched an official Facebook page August 2009, providing members with access to exclusive runway images and short films. On November 9, 2009, the Facebook group had over 214,000 fans (www.Facebook.com/yvessaintlaurentofficial). The apparel firm also created a Twitter account and updates over 10,316 fans with insider information on the fashion house (Twitter.com/Y_S_L).

Gucci decided to make its presence in the iPhone application world by introducing the Gucci application in October 2009 (http://www.gucci.com/us/us-english/gucci-news/iphoneapp/). The application marks the first foray of a fashion house into the iPhone Application universe, and owners of the application are allowed access to exclusive Gucci products, fashion show footage, news, and music. Gucci also created an interactive website 'Gucci Eyeweb' in October 2009. The site presents Gucci's eyewear collection and allows users to upload images of themselves out on the town to be reflected in their choice of Gucci frames. Similar efforts in social networking could help other apparel firms better serve the needs and desires of their target markets.

Forecasting Tool Utilizing Twitter

On November 5, 2009, online fashion news journal Just-Style.com reported that UK forecasting firm StyleSignal launched a tool that could track and analyze Web 2.0 social media tools such as Twitter feeds for use in forecasting trends (UK: Fashion Trend, 2009). Called 'Trend Science', this software tool was in development for over two years and can break trends down by market or garment type. This software as a service (SaaS) has the potential to revolutionize the world of apparel forecasting. This literature review has presented the theoretical necessity of such a tool, but the fact that this service, targeted to the apparel industry is available and already in demand from leading apparel firms, retailers, and manufacturers demonstrates the practical value of utilizing Web 2.0 tools for apparel trend research.

Summary

Traditional apparel product development processes are evolving to incorporate the consumer's voice and opinion. New technologies are enabling retailers to have a quicker response to changing apparel trends. Wickett and colleagues (1999) laid out the sequential phases and steps within the apparel development process in their Revised Apparel Retail Product Development Model (Figure 1). Apparel firms are collecting primary research data on their target customer for many of the steps within the process (e.g., Inspirational Search of Trends, Target Customer Base, Marketplace Research) because traditional forecasting techniques are growing increasingly unreliable in the rapidly moving retail environment. Web 2.0 social network systems

could be utilized to obtain the necessary primary market research and consumer data in the apparel product development process. Luxury houses, such as Yves Saint Laurent and Gucci, and UK forecasting tool StyleSignal, all indicate the real value of tapping into the social network world. Academic research has not studied the utility of social networking for the apparel industry. This research questioned apparel product developers to understand if Web 2.0 social networking tools are utilized to assist the fashion industry with developing new apparel products.

Chapter 3

METHODOLOGY

The purpose of this study was to discover if Web 2.0 social networking tools are being utilized in product development research in apparel firms and how further adoption of Web 2.0 networking systems could be useful to apparel product development processes. The methodology utilized in Jang, Dickerson, and Hawley's 2005 qualitative study of apparel product development success and failure was adopted for the methodology of this study. Jang and colleagues conducted 27 face-to-face interviews with US apparel and retail product developers. Their data collection was structured in a way that allowed them to explore previously identified themes as well as discover new themes brought up by participants. These authors coded and classified all emergent themes into categories allowing for greater understanding of reported measures of apparel product success and failure.

In this study, the theoretical framework supports the need to conduct in depth interviews with professionals in product development positions from different firms. Wickett and colleagues' Revised Apparel Retail Product Development Model (1999) provides a framework for the generalized product development cycle, but in order to understand what firms do for each step in the cycle (i.e., if they rely on traditional or

innovative methods to execute steps along the process) the employees who labor in product development must be interviewed.

Social networking technologies present an innovation that can be adopted in many ways to benefit an apparel firm. The Innovation Adoption Theory by Rogers (1995) explains the five separate phases of the decision making process that a firm must pass through prior to any level of adoption or rejection of this innovation. Through interviewing professionals from different firms who work in apparel product development, this research study was able to identify which stages of innovation adoption different apparel firms have passed through, to identify the stage of adoption that the firm is currently in. This study also analyzes the reasons why each firm is in that stage of innovation adoption, thus bringing light to the aim of understanding how Web 2.0 social media tools are being utilized to aid in product development. The following chapter presents the procedure, sample, data collection, and interview questions for this study and takes cues from the methodology used by Jang and colleagues (2005).

Procedure

To uncover if and how Web 2.0 social networking tools are used in the product development processes of an apparel firm, a qualitative research design was employed. Using the strategy of purposeful selection, the principal investigator reached out to apparel industry contacts whose positions involve them in apparel product development. Then, these professionals were asked to speak to their contacts and inform them of the study to garner wider interest in participating. Using this snowball sampling approach, a sample frame of sixty industry professionals who work within the marketing, merchandising, design, or production teams of an apparel firm were identified as potential participants and sent an initial email requesting their participation in the study (see Appendix A). The majority of these initial United States apparel industry contacts worked in the New York and greater Philadelphia areas. A follow-up email, similar to the initial email, was sent to individuals who did not reply six weeks after the initial email. Of these sixty apparel industry professionals contacted between December 2009 and March 2010, only twenty-five professionals replied with their interest in participating.

These twenty-five professionals were then sent the list of interview questions, including links to the exposure websites, and consent form, and the first attempt was made to schedule an interview. The interview time, date, and medium (Skype, phone, or in person) were determined. After this round, fifteen participants were dropped from the study due to their self-identified inability to respond to product development questions, position in a product sector that is not apparel, lack of time to schedule an

interview, travel plans coinciding with interview time frame, or lack of response to following emails. If three attempts were made to schedule and reschedule an interview with participants, but they were still unable to find convenient timing, the participant was withdrawn from the study.

Ten apparel developers were interviewed one-on-one by the principal investigator in structured interviews during February and March of 2010. All participants had the opportunity to respond to the same interview questions and offer their specific experience and insight, predictions, views, and ideas about apparel product development and Web 2.0 consumer research. Three interviews were conducted in person and five were conducted over the phone. Two interviews were completed as a questionnaire and emailed to the researcher upon completion due to travel and timing coordination difficulties.

Sample

Non-probability sampling was utilized in this study, and the method employed to gather a sample of ten apparel developers was purposeful sampling. Apparel product development is a shared responsibility between marketing, merchandising, design, and production teams within a firm (May-Plumlee, & Little, 1998). Individuals who currently hold these positions in apparel and retail companies were targeted for interviews.

Data Collection

The interviews followed Patton's (2002) suggestions for qualitative interview approach, and supportive data was gathered from other sources such as published sales and annual reports. Participants were individually asked if they accepted that the conversation be taped and each participant agreed. Basic demographic information was gathered on each participant, including gender, current job title, firm employing them, number of employees and date firm was established. While job title was disclosed, the apparel firm's name was not used. To maintain confidentiality when responses were discussed, the researcher provided a description of the apparel firm without disclosing the firm's name. These basic demographic responses assisted the researcher in analyzing, comparing, and contrasting responses.

Institutional Review Board

The primary researcher attended human subjects training courses offered through the University of Delaware and also completed online training recommended by the University of Delaware's Institutional Review Board (IRB). This study was approved by the University of Delaware Institutional Review Board (IRB) and granted an exempt status in December 2009, Protocol # 148294-1 (Appendix B). Participants were informed of their rights and that anonymity would be protected in the report of findings. Each participant signed and returned the consent form (see Appendix C).

Participants were provided a copy of the consent form for their records. Each participant was provided the interview questions at least three days in advance of the scheduled interview. Each interview was recorded with a tape recorder as approved

by each participant, and notes were also taken during the interview. The interviews were then transcribed and key terms were identified for each question. To ensure anonymity after data were collected, each participant's responses were transcribed under his or her interviewing number.

Interview Questions

Following a structured interview design, the same interview questions were asked of each participant. The following interview questions were developed from research aims, previous studies (Wickett et al., 1999; Jang et al., 2005; Fiore, 2008; Kim & Johnson, 2009a; 2009b) and the in-house apparel development stages outlined in the Revised Apparel Retail Product Development Model (Wickett et al., 1999; see Figure 1). The qualitative interview design allowed an investigation of these themes and also assisted in the discovery of new themes surrounding consumer research, the Internet, and adoption of Web 2.0 social media as a tool for apparel product development research. Each theme has multiple sub-questions aimed at discovering the full scope of the product development processes conducted by each firm. See Appendix D for complete list of interview questions.

Method of Analysis

"Qualitative analysis transforms data into findings; no formula exists for that transformation" (Patton, 2002, p. 275). To analyze the data gathered, a constant comparative method and open coding were utilized. The constant comparative method assisted the researcher in identifying and selecting patterns and themes, and the open coding of specific variables assisted the researcher in breaking down, examining, categorizing, and comparing the qualitative data (Kim & Johnson, 2009a). Each interview question and subsequent discussion on an area of interest was treated as a separate variable and the author recorded the responses from each interview on a coding sheet. Common themes and sub-themes among responses to variables were examined. Results of responses to each interview question and sub question are presented in the following chapter.

Chapter 4

RESULTS

This study examined the utility of Web 2.0 social networking tools on the apparel product development process. To thoroughly understand the apparel product development process and if and how 'new media' can assist with its processes, ten apparel industry professionals were interviewed individually for approximately forty minutes each. This chapter details the results of these interviews. The responses to each interview question will be discussed in turn, following the constant comparison and open coding process utilized in the analysis. The results of this qualitative research study are presented in the following sections: 1) Profile of Participants and 2) Interview Responses.

Profile of Participants and Apparel Firms

The ten apparel industry professionals participating in this study were employed by nine different companies. The participants provided basic demographic information from which profiles of the participants' positions and their firms were created. See Table 1 for the profile presentation of each participant's position and their apparel firm's size, as indicated by number of employees, and the year the firm was founded. Firms with fewer than 1,000 employees were described as "small".

Firms employing between 1,000 and 5,000 employees were described as "medium" and those employing over 5,000 were described as "large". Firms founded less than 10 years ago were given the description "developing". Firms founded between 10 and 20 years ago were given the description of "established", and finally, firms founded over 20 years ago were given the description of "vested".

Table 1

Profile of Positions and Firms

Participant	Position	Firm	Date Est.	Size	Description
1	Creative Director	1	2007	5	Small and developing collegiate apparel firm
2	President	1	2007	5	Small and developing collegiate apparel firm
3	Product Development Manager	2	1999	25	Small and established outdoor apparel firm
4	Assistant Designer	3	1995	75	Small and established wholesale firm
5	Technical Designer	4	1986	16,000	Large and vested multimedia retailer
6	CEO	5	2004	15	Small and developing private label retailer
7	Associate Designer	6	1979	1,000	Medium and vested manufacturing firm
8	Assistant Designer	7	1996	30	Small and established women's wear firm
9	Associate Buyer	8	1975	2,500	Medium and vested luxury goods firm
10	Design Director	9	1901	52,000	Large and vested luxury firm

May-Plumlee and Little (1998) state that apparel product development tasks and responsibilities are shared between the marketing, merchandising, design, and production departments of a firm. This study targeted apparel industry professionals

in these roles for in-depth interviews. The distribution and frequency of participants

by department are presented in Table 2.

Table 2

Frequency of Positions by Department within the Apparel Firm

Departments	Participants	Frequency (%)
Design	4, 5, 7, 8, 10	50
Merchandising	9	10
Marketing	2, 6	20
Product Development	1, 3	20

Ten apparel developers were interviewed. The sample included nine women and one

man employed by nine different companies. The participants held the following

positions within their respective companies: two Assistant Designers, one Associate

Designer, one Creative Director, two President/CEO, one Technical Designer, one

Associate Buyer, one Design Director, and one Product Development Manager.

Profile of Apparel Firms

Nine apparel firms were represented in this study. The following section

provides a brief description of each apparel firm.

Firm 1: Established in 2007, this apparel firm is a private label manufacturer and

wholesaler of collegiate casual wear for men and women. This apparel firm is based

in the Southeast region of the United States. Their products are sold on select

campuses on the East coast and products are available nationwide through e-

commerce.

Firm 2: Established around 1999, this firm is a privately held outdoor apparel firm focusing on the development and merchandising of resistant outerwear. It is located on the East coast and consists of 25 employees.

Firm 3: Established in 1995, and located on the East coast, this firm has 75 employees and is a private wholesale firm focusing on designing and manufacturing women's tops for the mass market.

Firm 4: Founded in 1986 and currently holding about 16,000 employees, this firm is a multimedia retailer providing various products including but not limited to beauty, fashion, home, electronics, cooking, and dining products. They are based on the East coast.

Firm 5: Established in 2004, and based on the East coast, this apparel firm is a private label manufacturer and retailer, specializing in luxury apparel for the female urban professional. Their products are available through a single retail location or nationwide through e-commerce.

Firm 6: Headquartered in the East coast, this firm focuses on the design, manufacture, distribution, and marketing of children's apparel and accessories. It was established in 1979 and employees about a thousand apparel professionals.

Firm 7: Based on the East coast, and established in 1996, this firm is a woman's clothing retailer specializing in contemporary fashions for the professional woman.

Firm 8: Founded in 1975, and headquartered in Europe, this firm is a high fashion retailer with around 2,500 employees. This lifestyle luxury company distributes ready-to-wear and haute couture goods, as well as leather goods, watches, and eye-wear, and other consumer products.

Firm 9: Based out of the West coast, this publicly traded retail firm was founded in 1901. About 52,000 employees work for this firm. This retail firm controls several upscale department stores across America and sells clothing, handbags, fragrances, cosmetics, jewelry, as well as other products.

Interview Responses

Interview Question 1

Product Development - How is product development conducted by your company? Which positions have input in the production process? What level of involvement do you have in the process?

-How is product development conducted in your company?

Every participant responded that product development was design driven and that each new line was visualized through some form of research, then design, and then development of samples. Participant 6 succinctly responded, "Once the seasonal line is conceptualized, flat sketches and style details are created by the designers and sent to product development." Participants mentioned research on part of the design team as an important step prior to designing. Participant 2, the President of her small

developing collegiate gear firm, discussed research conducted on particular schools prior to the design step. "Usually, we start by doing research about our University partners before we talk to them about designing a collection for their school or delivering a collection to their stores". Participant 8 responded that the head designer reviews forecasting news, runway shows, and magazines before starting to design a new line. "Since NAME is the designer of the company, she overlooks everything. She looks at forecasting reviews and the [fashion] shows as well as the magazine *View*, and she then decides which trends are best for her company." These responses support the use of the Apparel Product Development Model (see Figure 1) in the development of this study through showing that the sequential processes of the model are in fact a reflection of the actual product development work conducted by an apparel firm.

- Which positions have input in the production process?

There was a heavy design focus in product development in most of the firms included in this study. The responses to this question further support the heavy design focus of most firms when developing new product. Most of the participants, 80%, responded that Design positions have input on product development. Firm 1 did not have a Design position. This firm has a Creative Director role instead, and this role encompasses all design responsibilities for the firm. Another common response was Technical Design, and six participants responded that this role had influence on apparel product development. Table 3 presents the frequency of responses to which positions have input in the apparel product development processes of these firms.

Table 3

Positions with Input in Product Development

Position	Participant	Frequency (%)
Design	3,4,5,6,7,8,9,10	80
Quality Control	4,7	20
Sales	7,8,9	30
Technical Design	3,4,5,6,9,10	60
Product Development	1,2,3,8	40
Creative Director	1,2	20
President	1,2	20
Buyers	9,10	20

- **What level of involvement do you have in the process?**

Most participants, 9 out of 10, said they had high involvement in product development. Only one respondent, Participant 2, the President of her small firm, said she had medium involvement. The responses to this question show that these participants are knowledgeable in current product development practices and could support the objective of this research, to understand current methods of product development.

Interview Question 2

Company Website - Does your company have its own website? If yes: What information is being collected from consumers on the site? How is this information being used by the apparel firm? What can consumers do on this website? Are there any interactive applications on the site, such as consumer comments or reviews? If no: Why not? How can consumers find out more information on your brand and

products? How does your company reach consumers who cannot physically visit a store?

- Does your company have its own website?

All participants said their company has a website. This is an important finding regarding the utility of Web 2.0 social media tools. This result demonstrates that all participants and their firms see value in having an online presence.

-What can consumers do on this website?

- What information is being collected from consumers on the site?

-Are there any interactive applications on the site, such as consumer comments or reviews?

There were very mixed responses to the questions of what consumers can do on a website, what information is being collected from consumers on the company's website, and if there are any interactive applications on the firm's website. Some firms collected sales information from e-commerce, and some firms collected product reviews from consumers. Participant 5 stated, "We have customer feedback and as soon as something goes on air, it goes on our website also. If you look at denim jeans for example [on the website], sometimes there are five reviews, sometimes there are fifty reviews, and we collect that information provided on each product." Participant 5, a designer for Firm 4 said, "We have an extremely interactive website. We have community chats on any item or designer. A lot of our job is reading [consumer reviews] and seeing what is working, what isn't working, what we can reinvent, [and] what does she like about it." Participant 6 said, "On the new version of our site

customers will be able to review and comment on the product. We will also have an interactive section of our site where customers can post pictures of how they wore it, their favorite items from the store, style ideas, and what they are looking for."

Participants 4 and 7 said their firm is not collecting information through their website. Both described their respective firms' websites as a static page of basic information on the company and its products. Participant 4 explained, "Our website serves basically as a phone listing, including email, our phone address, where we're located, etc." Table 4 displays the types of information collected from consumers on the company's website by frequency of responses.

Table 4

Consumer Information Collected from the Firms' Website

Collected from Website	Participant	Frequency (%)
Sales info from e-commerce	6,8,9,10	40
Time spent on individual page	3,6,9	30
Product reviews	2,5,10	30
Nothing on site to view	4,7	20
Emails for mailing list	1,2	20

- How is this information being used by the apparel firm?

While there were varied methods followed, Participants 1, 2, 3, 5, 6, 8, 9, and 10, all from firms with an interactive website, mentioned that they use the website information to help them better understand their customers. Participant 3 stated, "We

use the information gathered on the website to create a better picture of our consumer."

Interview Question 3

Search of Trends - In your position, do you contribute to an inspirational search of fashion trends, domestic or global? What methods does your company use to forecast fashion trends? Do these methods include monitoring of consumer fashion sites on the Internet? Why or why not?

- In your position, do you contribute to an inspirational search of fashion trends, domestic or global?

A majority of the participants, seven out of 10, contributed to their firm's inspirational search of fashion trends. This 70% was composed of participants 1,3,4,6,7,8, and 10, who are all in design related positions in their firm. Participants 2, 5, and 9 did not contribute to their firm's inspirational search of fashion trends. As President, Technical Designer, and Associate Buyer in their respective firms, their responsibilities did not overlap with the creative design positions responsible for the search of domestic and global trends.

- What methods does your company use to forecast fashion trends?

There was a great variety of methods utilized to forecast trends across the firms interviewed in this study. Four of the participants said they view forecasting services (Donager Group was the most common mentioned by name), and four firms also mentioned viewing runway fashion. Three participants cited street fashion as a source of forecasting information, and another three participants said trade shows. Industry

news, world news, and lifestyle trends were each mentioned only once. These sources of trend forecasting were shared by Participants 2 and 3. Their responses varied from the other, more traditional sources of fashion information.

Participant 2, as the President of her apparel firm, desired a broader range of information including those from outside the fashion industry. She states, "I personally do a lot of really broad reading, I read everything from the mainstream fashion magazines to *The Wall Street Journal*, and I really keep up to date with trends not only related to apparel but the business world and social responsibility. I think it's really important that I pay attention to all aspects of the business world we are involved in and not just clothes because it's about much more than that."

Participant 3's responses were outside of the traditional fashion scope because he works for an Outdoor Apparel Company that has a stronger focus on functionality than fashion aesthetics or trends. He stated, "I look for lifestyle trends, rather than specific 'fashion' trends. I spend a lot of time researching automobile websites. I also am interested in what is going on in the realm of industrial design. For example, what do the new electronic gadgets look like? What colors are being offered? The life of my products are more in sync with the product life of cars and electronics."

- Do these methods include monitoring of consumer fashion sites on the Internet? Why or why not?

All of the participants utilized consumer fashion sites or fashion blogs on the Internet for trend forecasting. Participants viewed websites and blogs with varying frequency. Some stated that they viewed them each morning, or at least once a day,

and others stated they reviewed their favorite blogs on a weekly or less frequent schedule. The unanimous reason provided for why the participants viewed their favorite websites is that it provided them information into other perspectives of fashion, and then allowed them to translate this information to their market. Participant 4 said she views various style review sites and key trends discussed on high fashion blogs because, "You basically see what's being sold at the time in the higher end to understand how to translate that trend to the mass market." Participant 9 said it is important for her to know what trends are being discussed in her domestic market so that she can communicate them to the global design office for the firm. "I come in as a liaison representing the U.S., so I would provide them with information about new fashion blogs I have heard of that may help them understand our market better." Table 5 details the specific sites mentioned by each participant interviewed.

Table 5

Fashion Blogs/Consumer Sites Viewed for Forecasting Information

Blog/Website	Participant	Frequency (%)
Stylesite.com	4,5,10	30
Style.com	7,8,10	30
WGSN.com	7,10	20
WWD.com	1,2,5	30
The Sartorialist.com	1,8,9,10	40
Vogue.co.uk	10	10
Etsy.com	4	10
The Cobra Snake.com	10	10
10Magazine.com	10	10
The Cool Hunter.net	10	10
Just Style.com	2	10
Industrial design sites	3	10

Interview Question 4

Target Customer Base – In your position, do you contribute to an understanding of your target customers? How is consumer research conducted by your firm? Do these methods include monitoring of Internet fashion sites? Why or why not?

- In your position, do you contribute to an understanding of your target customers?

Ninety percent of the participants interviewed in this study contribute to their firm's understanding of its target consumers. Participant 2 identified this overall need to maintain an understanding of the consumer base by saying, "I think it's really important that we surround ourselves with them because every year that goes by our Executive team is going to be a little bit further from that target age range and so it's really important that we continue to understand their wants and needs and create and deliver collections that they want." Only Participant 4 did not contribute to an understanding of the target customer for her firm. This respondent, an Assistant Designer, reported that it was the responsibility of the Marketing team at her firm to develop the understanding of the target consumer, and that they updated and handed down the description to the design team on a monthly basis. "My job was not worrying about *who* the target market was. My job was just making products *for* that target market."

- How is consumer research conducted by your firm?

There were a variety of responses describing how target customer research is conducted by each firm. The most common responses were direct conversations with customers, focus groups, and shopping where their consumer shops. Table 6 displays the various methods utilized by the firms to conduct target customer research.

Table 6

Target Customer Research

Method	Participant	Frequency (%)
Focus Groups	2,7,10	30
Sales Information	10	10
Customer Feedback	10	10
Conversations with Customers	1,2,9,10	40
Sales Team	3,8	20
Shopping	6,9,10	30
Buyer Feedback	4,5	20

-Do these methods include monitoring of Internet fashion sites? Why or why not?

Most of the respondents, seven out of 10, included Internet sites as a tool utilized to aid in customer research. Firm 1, through Participants 1 and 2, revealed their firm's very creative utilization of Facebook to not only communicate directly with potential consumers to ensure their brand would have a successful launch at new schools, but also to assess potential models for use in advertising images. Participant 2 stated, "Through Facebook I will have conversations with sorority girls who will

say, 'I think your product would be great here, here's why' and I respond and hopeful reach out to other groups after I spark that initial conversation with them."

Two of the respondents were not sure if the Internet was utilized as a method of consumer research by their firms, as their positions did not involve the gathering of customer research. Participant 3, the participant from the Outdoor Apparel company, was the only respondent to reply 'no' to this question. Participant 3 said his firm does not use the Internet to gather information on their target customer because the firm is concerned with wholly handling the creating and designing of the product. "I [as Product Developer] am less concerned with end consumers input, as I know it's the retailers who first have to carry our product for the end consumer to even be exposed to it."

Interview Question 5

Theme Development - In your position, do you contribute to the development of the new apparel line theme? Which of the following decisions do you provide input in? (e.g. Palette Development, Fabric Design Decisions, Silhouette and Style Decisions, Structural Fabric Decisions, Prototype Patternmaking, Construction of Samples). Please provide any other theme development tasks undertaken by you or your apparel firm. If no theme development is done by the apparel firm, why?

- In your position, do you contribute to the development of the new apparel line theme?

- Which of the following decisions do you provide input in?

All participants said they contributed, in some degree, to the development of new apparel line themes. Six specific theme development tasks were listed in Wickett, et al.'s Revised Apparel Product Development Model (1999; Figure 1). Participants were asked which processes they had involvement in, and responses to this question provided greater understanding to which positions dealt with each product development process. Table 7 lists the responses to participants' involvement in specific theme development processes conducted in their firm. A majority of the respondents provided input in the pre-adoption theme development positions that occur prior to the development of pattern and samples.

This heavy involvement in palette development, fabric design, silhouette and style, and structural fabric decisions by the professionals interviewed indicates that these steps are highly important product development processes that require input and shared responsibility between all product development positions. Prototype patternmaking and construction of samples were evenly split between the respondents that are involved or not involved in the execution of this step. Most respondents who were not involved stated it is because these steps are specialized and are sometimes outsourced to the production team. Participant 7 said that the Technical Design team takes the finalized theme to patternmaking and sample phase in her firm. Participant 4 said that her firm's production factory produces patterns and samples and returns them to the design office for final approval. "The test pack is the blueprint for the product, and we send that to the factory, they make it [the sample], then send it back to us. We were responsible for everything up to the construction phase."

Table 7

Theme Development Process Involvement

Process	Involved	Frequency (%)	Not Involved	Frequency (%)
Palette Development	1,2,3,4,6,7,8,10	80	5, 9	20
Fabric Design Decisions	1,2,3,4,5,6,7,8,9,10	100		0
Silhouette & Style	1,2,3,4,5,6,7,9,10	90	8	10
Structural Fabric	1,3,4,5,6,7,8,9,10	90	2	10
Prototype Patternmaking	3,5,6,8,10	50	1,2,4,7,9	50
Construction of Samples	3,5,6,7,10	50	1,2,4,8,9	50

Interview Question 6

Marketplace Research – In your position, do you contribute to or conduct marketplace research? How is marketplace research conducted by your firm? Do these methods include monitoring of Internet fashion sites? Why or why not?

- In your position, do you contribute to or conduct marketplace research?

Most of the participants, seven out of 10 said yes, they contribute in their current positions to marketplace research. Only three participants replied that they were not involved in marketplace research conducted by their firm. Participants 4, 7, and 8 were all employed in design-related positions in their firms, and stated that this type of research would be a responsibility of the merchandising teams in their firms.

- How is marketplace research conducted by your firm?

Marketplace research was conducted in a variety of ways by the firms interviewed in this study. Working with retailers and conversations with customers were the two

most frequent responses to how marketplace research is gathered by the firms. Participant 6 stated that her firm utilizes surveys, marketplace research firms, and forecasting reports, all with the aim of understanding the consumer's opinion of the marketplace. "Yes, occasionally [we use] surveys or [contract] the use of market research firms. However, most [of our market research] is done by creating conversation with our customers and followers."

This finding highlights the importance placed on primary data to the product development processes. Communicating with customers about the brands they favor is highly valued as a method of understanding the marketplace, and the retailers are communicating their knowledge of what they hear and see their consumers being attracted to in the market. This finding indicates that marketplace research is a step which highly benefits from primary consumer data collection techniques. Table 8 shows the different methods of how marketplace research is conducted in each participant's firm.

Table 8

Marketplace Research

Method	Participant	Frequency (%)
Shopping	1,9	20
Forecasting reports	2,6	20
Work with retailers	3,4,8	30
Competitor websites	5,10	20
Surveys	6	10
Conversations with customers	1,2,6	30
Market research firms	6	10
Sales team	7,8	20

- Do these methods include monitoring of Internet fashion sites? Why or why not?

Many of the participants, six out of 10, said their firm utilized the Internet to conduct marketplace research. Only Participants 3, 4, and 8 stated that their firm did not use Internet fashion sites or blogs for marketplace research. Participant 3's response here is not surprising as his firm is strongly against relying on Internet sites for information for their firm. Participant 4 said her firm does not use Internet because the firm relies on marketplace information gained from the direct relationship with department store buyers. She stated, "I know a lot of it is face to face contact with the people who make decisions at department stores and working directly with them." Finally, Participant 8 was unsure, but did not think that the Internet played a role in market research, as market research was not a heavy focus for her firm.

Interview Question 7

Line Adoption - In your position, do you contribute to the presentation of the line or the approval of new apparel lines for adoption by the firm? What does your firm do to prepare for line presentation and to review proposed apparel lines for adoption? If no presentation, what does your firm do to move from a proposed line to the sample stage?

- In your position, do you contribute to the presentation of the line or the approval of new apparel lines for adoption by the firm?

All participants contributed to line adoption in their positions in the firm. Participants provided a variety of roles that they played in the line adoption process.

Participant 8, an Assistant Designer, said, "I make sure everything looks the way it's supposed to look for the buyers." Participant 9, an Assistant Buyer, said her contribution comes from her exclusive knowledge of her market to assist in the narrowing down or improvement of proposed samples for production. The unanimous involvement in contribution to line adoption of the participants in this study indicates that line adoption is an important product development step across a variety of industry positions.

- What does your firm do to prepare for line presentation and to review proposed apparel lines for adoption?

All participants said that their firms' line presentation involved the preparation and display of samples that were developed and prepared for demonstration. Three participants also mentioned that their firm presents research during line presentations. These participants were employed by Firm 1 and Firm 6. Firm 1 presents their research during line presentations because they develop specific lines for each school, thus the research is needed to support the thorough understanding of the presented line. Participant 1 said the research helps support her firm's case when they have innovative designs perceived as progressive for the market. She stated, "What makes that school tick, what's their mascot, what's their color, are they more an athletic school, are they more into this, into that? All that research we bring with us during presentations with buyers. [A trend] hits the collegiate market so far after it hits fashion that a lot of the buyers are afraid to buy things that don't look like what they've been carrying for the last 50 years, which is a big thing for us, to bring new

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and fresh items into the collegiate market instead of just a t-shirt with block letters over and over."

Participant 7 said that her firm presents research during line presentation because it is an opportunity for the creative team to convey the message of the new line to the sales team. "The creative team will put together a giant presentation of all the products we are displaying and we get them involved in the theme, so that they will have an idea of what's going on and that will help them pitch it to their account, so that we're all on the same page pitching the same information." Only two firms, Firms 7 and 8 prepared and conducted fashion shows in support of new lines. This is probably more related to these firms, which were both private labels, having a high level of public visibility and brand awareness. Table 9 presents the frequency of responses to how firms prepare and present new lines for adoption.

Table 9

Presentation and Line Adoption

Method	Participant	Frequency (%)
Samples shown to buyers	1,2,3,4,5,6,7,8,9,10	100
Present research	1,2,7	30
Fashion shows	8,9	20

Interview Question 8

Technical Development – In your position, do you contribute to the technical development of new apparel lines? Which of the following processes do you provide input for? (e.g., Fit and Style Perfecting, Production Pattern Making,

Materials/Garment Specification Writing, Retail Firm Development, Manufacturer Development). Please provide any other technical development tasks undertaken by you or your company. If none, why does your firm not technically develop new apparel lines?

- In your position, do you contribute to the technical development of new apparel lines?

- Which of the following processes do you provide input for?

All participants contributed, in some degree, to the technical development of new apparel lines. Most participants, (N = 8) contributed to Fit and Style Perfecting. Participant 2 did not because as the President of the apparel firm, she does not have that deep of an involvement in the technical side of product development. Participant 4 also has no involvement in technical development positions because her firm has fit technicians who conduct this step. Six participants did not participate in Production Pattern Making and the most common reason was because this step was outsourced. Participant 8 said that patternmaking is completed by either the technical design team or the factory. "I don't usually have to do that because at that point it's usually our technical development team or our factory that does that step."

Six participants conducted Materials/Garment Specification Writing. Of these six, Participants 5, 7, 8, and 10 were in design-related positions, so this explains their involvement in garment specification writing. The remaining two participants with involvement in materials/garment specification writing were Participants 3 and 6. Participant 3 was the Product Development Manager, and he retains final review over

garment specifications and sample analysis. She explained, "Once I have approved the samples for fit, the factory then provides me with a counter spec pack based off of the changes made." Participant 6 is the C.E.O. as well as lead designer in her apparel firm, thus she retains control over creation of technical packages and specification writing.

Six of the 10 participants did not contribute to Retail Firm Development. The most common reason for this was either their firm did not have retail stores of its own (Participants 3, 4, 5, and 8) or because the respondent's position did not influence retail development in their firm (Participants 9 and 10). Participant 10 responded to the question with "No, I'm not sure that applies to us since we are a private label division." The participants who did have influence over the development of the firm's retail stores were Participants 1, 2, 6, and 7. Participant 7 explained that she helps support the visual merchandising efforts for the retail level. "As a creative team we kind of match the tops with the bottoms specifically, and we coordinate outfits together. We do something called a 'design request' where the sales team will ask us to put together a visual display of the styles they are aiming to sell to whatever customer they are meeting with and they make their buys based on what they are shown". Finally, most participants, seven out of 10, said that they do contribute to manufacturer development. Participant 5 identified the importance of knowing the suppliers and manufacturers on executing the designs and moving development along to the production phase. She explained, "We work with our sourcing department on where we are going to place [an order] and that's based on each factory's capabilities

and fabric expertise. Say it's a leather jacket we're developing; then we really need

that [manufactured] in a leather factory". Table 10 presents the frequency of which

participants do or do not contribute to specific technical development processes.

Table 10

Participation in Technical Development Processes

Technical Development Step	Yes		No	
	Participants	Frequency (%)	Participants	Frequency (%)
Fit and Style Perfecting	1,3,5,6,7,8,9,10	80	2,4	2
Production Pattern Making	3,5,6,7	40	1,2,4,8,9,10	60
Materials/Garment Specification Writing	3,5,6,7,8,10	60	1,2,4,9	40
Retail Firm Development	1,2,6,7	40	3,4,5,8,9,10	60
Manufacturer Development	1,2,5,6,7,8,10	70	3,4,9	30

Interview Question 9

Competition and Media – In your position, do you contribute to the

understanding of your firm's competition or what is being discussed in the media on

your brand, fashion trends? What type of information on the competition or the media

does your firm collect and how do they gather this information? If not, why does your

firm not collect information on the competition or media?

- In your position, do you contribute to the understanding of your firm's competition or what is being discussed in the media on your brand, fashion trends?

Most of the participants, seven out of 10, said that they do contribute to an understanding of their firm's competition or discussion of the firm in the media. Participant 10 explained by saying that it is important to keep an eye on the competition to ensure that her brand is maintaining its differentiation in the market. She said, "[Analyzing the] competition is more to see what they are doing to make sure we remain distinct and definitive. We don't want to offer something our customers can just get anywhere". Participants 4, 7, and 8, each employed in design-related positions, said that they are not responsible for contributing to the firms' understanding of the competition in their current positions.

- What type of information on the competition or the media does your firm collect and how do they gather this information?

All respondents gathered information on their competition and how their firm was being discussed in the media. The highest response, seven out of 10, was that this information on the competition and on the firm in the media was gathered through Internet searches. Participant 7 said, "Usually we do competitive shopping and competitive research online. Most companies put it out there so easily that you can go through a few webpages and find what you want to know." This indicates the important role that Web 2.0 and the Internet have as reliable sources of information for the product developers interviewed. The next highest response to this interview

question, with six respondents out of 10, was that information was gathered through shopping at other brands. Forty percent stated that their firms have a dedicated Public Relations person/team that conducts this information gathering for the firm and then relays this information to the other departments. Table 11 shows the different methods employed to gather information on the competition or the media.

Table 11

Methods to Gather Information on Competition and Media

Method	Participant	Frequency (%)
Word-of-mouth	1,4	20
Public Relations person	1,4,8,9	40
Buyer reports	1	10
Internet searches	1,3,5,6,7,9,10	70
Staff from other brands	1	10
Shopping other brands	2,3,6,7,9,10	60
Trade shows	3,10	20
Discussing with retailers	3	10
Trade publications	5,10	20
No strong focus	8	10
Magazines	10	10

Interview Question 10

Social Networks – Have you ever been on Facebook, MySpace or Twitter for personal use? For professional use? If no, why not? Do you think your target consumer could be found on any social network? Does your company have a presence on any of these networks? Do you currently view any of these sites as a part of your

job? Do you think there is anything on these sites that could help you in your position?

- Have you ever been on Facebook, MySpace or Twitter for personal use?

Half of the participants, five out of the 10, have utilized Facebook only in their personal lives. Twenty percent of the participants were on both Facebook and Twitter, and another 20% were on all three social media tools. Only one respondent was not a member of any social network personally, and this was Participant 1. She revealed that she knows that this fact makes her an anomaly. She stated, "Um, honestly, I hate that stuff; I'm probably the only person I know not on Facebook!"

- Have you ever been on Facebook, MySpace or Twitter for professional use?

Most of the interviewees, seven out of 10, utilize social networks professionally. Facebook and Twitter were the most popular applications for professional use. None of the respondents monitored MySpace sites. Even Participant 1, who was not on social networks personally, admitted to using them professionally. "We [the firm] have a Facebook and a Twitter [page], so for personal use, I couldn't be bothered, but for professional use, yes, I use them." Participant 3 uses social media for professional networking. "I do have a few business contacts as friends on Facebook. However, these are the people I'd gladly be friends with even if we didn't have a working relationship. I do use LinkedIn on occasion for networking."

Two respondents, Participants 4 and 5, said they did not view any social media networks professionally. Participant 4 said that she does not use social media because

she sees it as a tool for promotion and she said that she is not trying to promote herself. "No. I would say that for me, I'm not a brand. I'm not trying to brand myself, so there's no purpose for me to use it in a professional sense. There are professional social networking sites that are out there, like LinkedIn is for connecting professional work associates but I don't particularly use it [that site]." Participant 5 does not use social networking professionally and replied, "I never had the opportunity or need to." Table 12 presents the responses from participants concerning their personal or professional involvement in social networks.

Table 12

Personal/Professional Use of Social Networks

Social Networks	Personal Use		Professional Use	
	Participant	Frequency (%)	Participant	Frequency (%)
Facebook and Twitter	2,6	20	1,2, 8,9,10	50
Facebook Only	3,5,7,9,10	50	6,7	20
Twitter Only		0		0
MySpace Only		0		0
Facebook, Twitter, and MySpace	4,8	20		0
None	1	10	3,4,5	30

- Do you think your target consumer could be found on any social network?

All participants believed that their target customer could be found on social networks, and most responded affirmatively. Participant 2 said her firm makes it a priority to continually monitor their target consumers' tastes through analyzing them online. She explained, "Every year that goes by our Executive team is going to be a little bit further from that target age range. It is really important that we continue to understand their wants and needs and create and deliver collections that they want."

Participant 4 said, "Definitely! High school girls, I think they [social networks] are definitely where you're going to reach that target customer." Participant 10 said that even though her firm has a wide range of customers it targets, each group could be found on social networks. "I think so, especially because we're not a brand and our retail firm is so huge, and we have over 40 different brands, so depending on the brand, the target consumer is probably on social networking."

- Does your company have a presence on any of these networks?

Most firms had developed a Facebook page, and some were on both Facebook and Twitter. None of the firms interviewed had a developed presence on MySpace. MySpace has garnered a lot of publicity concerning its utility within the music industry for branding and identifying new artists, so it is interesting to note that none of the apparel industry firms interviewed have a MySpace page.

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Sixty percent of the respondents said that their company has both a Facebook and Twitter presence. Thirty percent said their firm had Facebook fan page as its only social networking presence (Firms 4, 5, and 10). Only one respondent, Participant 3 from Firm 2, the Outdoor Apparel firm, said his firm did not utilize any social networks and was purposefully staying away from involvement in social media. This respondent is displaying the decision to reject adoption of the innovation.

- Do you currently view any of these sites as a part of your job?

Fifty percent of the respondents utilize social networking because the medium allows them to gather information that they otherwise would not have about their consumers or competition. For example, Participant 7 said she uses Facebook to analyze her firm's competitors, "I would check out what competition was on there and what they were doing to communicate with their customers." The respondents who did not use the medium said it was because the medium is still not viewed as professional or appropriate for information needed in the workplace. Table 13 shows frequencies and categories of response of participants who do or do not utilize social networking in their position.

Table 13

Utilizing Social Networking in your position

Do you use social networking in your job?		
Yes		
Reason	Participants	Frequency (%)
Yes – encouraged by job	9	10
Yes - information on competition	6,7	20
Yes - find models, information on schools	1,2	20
No		
Reason	Participants	Frequency (%)
No - more for personal time	8,10	20
No – firm restricts social networking use	3,5	20
No – not a professional medium	4	10

- Do you think there is anything on these sites that could help you in your position?

Most participants (70%) believe that social networks can assist them in their jobs. Two respondents chose not to answer this question. Participant 3 from Firm 2 was the only respondent who did not believe that there is anything on the medium to assist with his position. Participant 3 was strongly opposed to companies utilizing social networks and his firm has decided to reject the media. He feels the media does not offer anything substantial. "It's a platform for self-absorption. I don't invest much interest in what brands are saying about themselves." Table 14 displays the

responses to the question of how social networking could assist with the product

development position.

Table 14

Social Networking: Assist with your position

Response	Participant	Frequency (%)
No - not professional enough	3	10
Yes - interacting with customers	1,2	20
Yes - consumer preferences	4	10
Yes - apparel info	5,8	20
Yes - info on competition	7	10
Yes - what customers are saying about brand	9	10

Interview Question 11

Influential Fashion Blogs – Have you ever viewed/visited an online fashion

blog? If no, why not? If yes, which ones, how frequently have you visited them and

what was your opinion? Do you think your target consumer visits this type of site or

has his/her own fashion blog? Do you currently view any blogs as a part of your job?

Do you think there is any information available on fashion blogs that could help you in

your position?

- Have you ever viewed/visited an online fashion blog? If no, why not?

Fashion blogs were viewed by ninety percent of the participants. Participant 7

said she relies on consumer sites and fashion blogs because it allows her insight into

the trends that her target consumers are viewing, thus providing her a starting point

towards understanding fashion trends, "I think it's [fashion blogs] something that a lot of young girls are starting to check out as something to look to for trend inspiration and style advice, so I think there's a lot of good ones out there we view to keep up with what our audience is viewing and wanting."

Only Participant 3, from the Outdoor Apparel Firm, does not view fashion blogs. His company is not involved in "fashion" but more "function", so he did not view blogs he felt were classified as 'fashion'. His firm, however, does monitor product-review type of blogs from individuals or organizations that have tested their product. "I take their input into consideration for future production."

- If you have visited blogs, which ones? How frequently have you visited them and what was your opinion?

Several of the participants who regularly visit fashion blogs had a lengthy list of blogs that they view on a weekly or daily basis. Participant 9 summarized the need to view fashion blogs by saying, "Increasingly fashion blogs are becoming more and more important because people are trusting fashion blogs almost as much as they trust fashion magazines." Participant 6 said her firm reviews many fashion blogs, "Chictopia, The Cut, Style.com, The Sartorialist, Fashionista, Glamour, Stylelist, Rachel Zoe, etc. Someone in our company visits these and more on a daily basis. Some are better than others. They all cater to a different niche and provide different information." The mostly positive responses to this question indicate that fashion

blogs are widely recognized as a timely source for information regarding fashion and trends.

- Do you think your target consumer visits this type of site or has his/her own fashion blog?

Most participants, eight out of 10, believe their target consumer views fashion blogs. Participant 4, the Wholesale Company respondent, said her target customers may be on social networks. "Our targets are teenage girls. They're not as technologically savvy, but I know that they are starting to be [technologically savvy]." Participant 3, the Outdoor Apparel firm respondent, did not think that his customers would be visiting fashion blogs because they are not related to the technical nature of his products.

- Do you currently view any blogs as a part of your job?

Most participants, nine out of 10, view fashion blogs to assist with their job. Only Participant 8, the respondent from the small private label firm, said that she did not use blogs as a source of fashion information for her job. This participant believes there are too many blogs to choose from and they are too opinionated for her specialized target. She stated, "I think we don't use blogs because there are so many of them and anyone can start their own blog and have their own opinion of fashion."

- Do you think there is any information available on fashion blogs that could help you in your position?

Most, participants, nine out of 10, believe there is information on fashion blogs that can assist with their jobs. Participant 7 said she relies on consumer sites and

fashion blogs because it allows her insight into the trends that her target consumers are viewing, thus providing her a starting point towards understanding fashion trends. "I think it's [fashion blogs] something that a lot of young girls are starting to check out as something to look to for trend inspiration and style advice, so I think there's a lot of good ones out there we view to keep up with what our audience is viewing and wanting." Participant 3, the respondent from the Outdoor Apparel firm, was uncertain whether fashion blogs could assist him in his position. This is probably because he has not viewed many fashion blogs and feels that they would not provide the right type of information for his product category.

Interview Question 12

Other Web 2.0 applications – Is your company involved in any other Web 2.0 applications (Does your firm have any online presence – iPhone application, other social networking sites)? If yes, which ones? Do you know why this type of application was selected for involvement by your firm? Do you search any applications while conducting your job? Do you think that there is any information on these applications that could be useful to help with product development or consumer research?

- **Is your company involved in any other Web 2.0 applications?**

Most of the participants, sixty percent, said their firm was not involved in any other Web 2.0 application than those previously mentioned. Four firms were involved in a social network other than Facebook or Twitter. Participant 5 said her firm had developed an iPhone application. Participant 10 stated her firm had an internal blog

that was shared within the design team. Participant 9's firm had an online radio station (through a licensing deal). Participant 6's firm has a Digg page.

- Do you search any applications while conducting your job?

- Do you think that there is any information on these applications that could be useful to help with product development or consumer research?

Most of the participants, (n=8), reported that, beyond the Web 2.0 applications previously discussed, they do not search any other applications to try to find information for their job. Participant 10 mentioned looking into the Pantone iPhone application that allows designers to capture a color from anywhere to be uploaded for use in design. "If a designer passes a great rose pink and thinks, 'oh, that color would make a great t-shirt,' if you take a picture with the application; it will give you the closest color reference." Participant 2 admitted to doing general searches on Google.com of companies, product categories, and her own brand for research.

Interview Question 13

Exposure and Questioning - The interviews concluded with a short explanation and display of the following examples of fashion discourse on Web 2.0 applications and blogs. Participants were asked if such information would be useful to their company or in their position in efforts to positively impact sales and gain knowledge on the consumers and competition. These exposure questions were aimed to understand how firms and participants rate and feel about real examples social networking at work in the fashion industry.

When asked their opinion of the examples from the three social networking sites, the example of a fashion Twitter feed received the most favorable remarks for its ability to deliver the timeliest and relevant industry information. Facebook received the next most favorable statements for its ability to allow a brand to talk directly to its consumers, deliver company information, and get direct feedback from customers about the brand and its products. Participants liked the Victoria Secret's Fan page example because they felt that it did a good job representing the brand to their target demographic, advertising the product, and marketing directly to a group of influential consumers.

MySpace received the least favorable statements regarding their fashion chat forum. Previous research hailed MySpace as a source to assist in the understanding of fashion opinions from a variety of consumers (Thomas, Peters, & Tolson, 2007). Some of the participants interviewed in this study saw the potential of the MySpace site as a wealth of consumer information. The participant from Firm 3 was interested in how this cornucopia of consumer fashion opinions on a variety of topics related to fashion, trends, styling, brands, etc. could be used for his firms' benefit.

Most of the participants criticized MySpace because of its flat and uninspiring format and the inability to filter or search to narrow down the information in the forum. The major concerns that arose regarding using the MySpace forum as a source of consumer information is that the topics are so broad they require a great deal of searching to find useful information, and that for MySpace to be more useful to apparel developers for consumer or market research, the forum responses must

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become searchable. Then, for instance, a company could put in their name or product category, and get all the MySpace responses discussing their brand of jeans.

When exposed to the five most influential style blogs, participants found value in and gave mainly positive ratings of the sites. Even though many of the participants had not visited theses sites before, the consensus was that there was useful information on each site and several were noted as being useful for a search of inspiration. "The Sartorialist", which is listed as the most influential style blog, was highly rated for the basic format that easily displays street fashion and influential personal style. "High Snobbiety" received mixed reviews as participants felt it had too much of a focus on specific products, but others admired its ability to summarize global fashion trends. "The Cut" was highly favored as a reliable source of New York fashion industry information, especial information pertaining to executives in the industry or the launching of new campaigns from rival firms. Participants also favored "Fashionista" for its playful tone in delivering real fashion industry news.

Finally, "Stylelist" was highly rated as a guide for showing how consumers may be saving or splurging on certain fashion trends or reviews of runway shows. Participants felt that it is important to review highly visited fashion blogs and sites because they provide insight into their target consumer as well as inspiration for the creation of new products. Participant 9 said, "I think it's important to understand where your consumers are going for information, and increasingly blogs are becoming equally important as fashion magazines. So if consumers are viewing this, I think I

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should definitely be viewing this as well". The participants in this study found blogs and fashion websites valuable for the inspirational search of trends.

Table 15 shows the positive responses to each exposure website (i.e., why each participant liked the site and thought it had use). Participants 4, 8, and 9 identified the Victoria's Secret Facebook Fan Page as one they would positively rate and wish their brand would adopt a similarly highly interactive page.

Table 16 shows the negative responses to each website (i.e.; why they did not like it and would not visit it). Participant 3 had strong negative reactions to most sites. Regarding the Victoria's Secret Facebook Fan Page, Participant 3 felt it was too distracting to the consumers and would not result in real sales on the website. Participant 3 also felt that he would not view any of the fashion blogs because they were not directly related to his work in outdoors wear. Respondent 2 declined to participate in the exposure questioning.

Table 15

Fashion Website Exposure Responses (Positive)

Website	Positive	Frequency	Reason
Victoria's Secret Facebook Fan Page	1,4,5,6,8,9,10	8	4,8,9 - brand should do similar page 5,10 – well tailored to customer 6 – visually interesting page
MySpace Fashion Forum	4,5,7,9	4	4,5,7,9 - wide range of opinions
Style.com Twitter Fashion Feed	1,4,5,6,7,8,10	7	1,4 - good layout and content 5,6,7,8,10 - industry news, not gossip
The Sartorialist	4,5,6,7,8,9,10	8	4,5,6,7,8,9,10 – like the street fashion take
HighSnobbiety	1,4,6,7,9	5	1,4 - likes world trend reporting 7, 6 - wide product reach; lifestyle focus 9 – likes layout
The Cut	1,4,5,6.7,8,9,10	8	1,4,8,10 - industry info 5,6,9 - reliable, frequently updated 7 – fashion pop culture
Fashionista	1,4,5,6.7,8,9,10	8	4,8 – great info on high fashion 6 – well respected and reliable 5,9 – insight and comprehensive coverage
Stylelist	1,4,5,6,7,8,9	7	4,6 – comprehensive 1,5,7 - likes layout and how-to style 8 - their consumers would view 9 – great fashion week and trend reports

Table 16

Fashion Website Exposure Responses (Negative)

Website	Negative	Frequency	Reason
Victoria's Secret Facebook Fan Page	3	1	3 - too distracting from website
MySpace Fashion Forum	1,3,6,8,10	5	1,10 – too amateur 3 - not a fashion brand 6,8 - too time consuming to find target consumer info
Style.com Twitter Fashion Feed	3,9	2	3 – would never go on Twitter 9 – already viewing Style.com site
The Sartorialist	3	1	3 - not his style of info gathering
HighSnobbiety	3,5,8,10	4	3 - mistrustful of source (i.e. propaganda for specific products) 5,8,10 - too 'urban'
The Cut	3	1	3 - not related to his work
Fashionista	3	1	3 - not related to his work
Stylelist	3,10	2	3 - not related to his work 10 - too strong of a focus on consumer

Chapter 5

SUMMARY, DISCUSSION, AND RECOMMENDATIONS

The purpose of this study was to discover if Web 2.0 is being utilized in product development research in apparel firms. Previous research indicated a growing shift towards more consumer centric product development. Firms are incorporating more focused primary and secondary consumer data into their forecasting and development of new apparel products. The use of technologies such as body scanning and CAD show the willingness of the fashion industry to incorporate innovative technologies into traditional processes.

Web 2.0 social networking tools offer an innovative way for apparel firms to communicate directly with their potential and current consumers. There are many ways that product developers can utilize social networking interaction to gain a better understanding of what their users want and what could be the potential next apparel trend. Through reading user reviews, communicating with users through Facebook messaging and promotions, through analyzing Twitter responses to crowdsourcing questioning, or through analyzing influential fashion bloggers opinions, apparel firms could adopt these new information gathering techniques for use in traditional product development processes.

Academic research has yet to study and analyze how Web 2.0 social media tools are being utilized and adopted into product development processes. It is important to understand how the global interconnectedness, enabled through social media systems, could benefit apparel firms through increased knowledge of consumer needs and desires. Through adopting and maximizing the utility of Web 2.0 social networking tools into product development processes such as searching for trends, gathering of marketplace research, or conducting target consumer research, apparel firms may be able to increase satisfaction with their products as well as increase consumer loyalty to the apparel brand.

To understand how Web 2.0 is currently being adopted into apparel product development processes, this qualitative research examinedthe current product development processes of nine different apparel firms. Ten structured interviews with apparel industry professionals were conducted during February and March of 2010. Generalizations are made from this study with the realization that they are limited by the small sample size, the use of a non-random sample, and the way each participant interpreted the interview questions. Given these limitations, the focused interviews still revealed a great deal about the current processes of product development in different apparel firms. Finally, this study revealed the different stages of adoption of Web 2.0 social media tools as an innovative information gathering strategy. The following conclusions are directly drawn from the interviews and are organized to respond to the original research objectives and questions.

<center>**Use of Web 2.0 Tools**</center>

OBJECTIVE 1: To understand if Web 2.0 tools are currently being utilized by apparel product developers.

To accomplish Objective 1, the survey instrument developed for use in the structured interviews included specific questioning about the use of Web 2.0 tools. The first research question for this study asked: Are Web 2.0 social networking tools being utilized in product development processes? The following section calls upon the responses given from each participant regarding the use of Web 2.0 tools in their position and their firm's product development processes to respond to this objective and research question.

Online Presence

Every firm interviewed had a company website. The level of interactivity available through the website varied from firm to firm. It is important to note also that all firms, exclusive of their size, duration in the business, or target consumer group, saw value in having some degree of an online presence. This finding indicates that the Internet is actively utilized as an avenue to connect with consumers and provide them information about the apparel brand.

All respondents stated that they believed their target consumer could be found online. This finding also indicates that the industry is changing because no matter the demographics of the consumer group a firm is trying to reach, these respondents feel that they can be found online. These findings support the purpose for this and future research in online social networking and apparel branding. Apparel firms should be

doing all they can to capture and retain the attention of their target group, so they should be doing something to engage with their online target consumers.

Blogs and Consumer Fashion Sites

Blogs and consumer created fashion sites play an important role in the search of trends and as a method of staying relevant in the industry. The apparel industry professionals interviewed in this study favorably rated blogs as a source of information for many steps along the product development process. Many participants in this study (especially those in design positions) spoke of viewing various fashion and style blogs and websites to draw inspiration for the development of a new apparel line. Some of the favorite fashion blogs and websites listed by the participants were: WGSN, StyleSite, Style.com, Fashionista, Stylelist, Vogue.UK, 10 Magazine, the Cool Hunter, the Cobra Snake, The Sartorialist, Refinery 29, and BryanBoy.

The participants in design positions were particularly adamant that they needed to view fashion blogs daily to maintain the creative edge needed in their role. Other participants mirrored this reliance on fashion blogs to stay relevant by saying they follow various style sites and blogs so that they are able to better anticipate what trends will be next.

OBJECTIVE 2: To determine the stages within Wickett, Gaskill, and Damhorst's Revised Apparel Retail Product Development Model (1999) where Web 2.0 tools could be most useful**.**

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To accomplish Objective 2, the survey instrument developed for use in the structured interviews questioned how the firm conducted each process along Wickett et al.'s model (1999). The second research question for this study asked: What stages within the Apparel Retail Product Development cycle most benefit from Web 2.0 social networking tools? The following section details how the firms gather information to conduct each stage along the Revised Apparel Product Development Model (Wickett et al., 1999).

Revised Apparel Product Development Model

The Revised Apparel Product Development Model (Wickett et al., 1999) indicates the generalized processes conducted to bring an apparel line from the conceptualization phase to the final sample approval step. An objective of this research was to understand which stages within this model could be assisted by the utilization of information from Web 2.0 social networking systems. Inspirational search of trends, gathering of marketplace research, the collection of information on the competition and media, theme development, and information on the target consumer were identified as the product development processes that would most benefit from utilization of information on Web 2.0 social networking systems.

Along with traditional inspirational search of trend methods such as forecasting services, attending runway shows, and trade shows, mentioned by participants in this study, Web 2.0 tools were quoted by respondents as being useful to the gathering of inspiration and forecasting of fashion trends for an apparel firm. Blog

sites, in particular, were praised as sources of frequently updated and unfiltered views into fashion expressions from around the world.

Web 2.0 tools were also found to be useful to assist with the gathering of marketplace research. Most of the firms interviewed said that their firms utilized the Internet to conduct research on the marketplace. In other responses to how marketplace research is conducted by the firm, participants provided examples of methods that relied on primary data from consumers such as conversations and surveys from consumers, or receiving secondhand consumer data from reporting delivered by retailers and the sales team. These responses indicate that Web 2.0 tools could be utilized to benefit the gathering of marketplace research information for a firm.

Web 2.0 tools were also found to be useful to assist with a firm's collection of information on its competition and how the firm is discussed in the media. A variety of information could be found online, for example viewing what different brands are doing as far as promotional or loyalty building efforts on their Facebook fan pages, or viewing how brands and their products are being mentioned and reviewed in consumer sites and blogs. When asked which methods are utilized to gather information on the competition and the firm in the media, the most frequently delivered response was through Internet searches (Table 11). Participants believe that Internet searches provide reliable information on an apparel firm's competition and how that firm is being discussed in the media. Firms could increase the amount of information they

gather from the Internet and social media networks to assist with understanding how their brand is viewed in the media.

Web 2.0 tools could be utilized to assist with the theme development processes conducted by apparel firms. The participants interviewed were highly involved in many of the theme development tasks mentioned such as palette development, fabric design decisions, silhouette and style decisions, and structural fabric decisions. There are several ways that Web 2.0 social networking tools could assist with the information gathering necessary for theme development tasks. Apparel product developers could review blogs for silhouettes or styles rated as popular and in demand from their consumer base. These developers could also utilize crowdsourcing on Twitter or their website to conduct consumer polls if, for example, fabric decisions or color way choices become difficult to decide between. There are many ways that increased communication could benefit the development of a more successful apparel line theme.

Finally, this study found that Web 2.0 social networking tools could be highly useful to assist with a firm's understanding of its target consumers. Most of the participants replied that they contribute to their firm's understanding of their target consumers, indicating that this is an important product development step encompassing several positions. This indicates the growing importance of firms involving themselves in social networks because whatever the target consumer group, they can be found and communicated with on social networks. Most of the respondents said that they utilized internet sites as a tool to aid in understanding their

firm's target customer, but all firms should utilize Web 2.0 because the medium provides for instant access into what the target consumers are thinking, feeling, and desiring to purchase.

This research was also able to indicate ways in which Web 2.0 social networking tools could be better utilized for improved efficiency within product development. Within the Revised Apparel Product Development Model (1999) Web 2.0 social networking tools were shown to be already utilized in some essential processes. The Inspirational Search of Trends, Gathering of Marketplace Research, the Collection of Information on the Competition and Media, Theme Development, and Information on the Target Consumer were steps that most benefit from utilization of information on Web 2.0 social networking systems. This was discovered though analysis of the interview responses to these steps in the cycle. The current utilization of Web 2.0 social networking tools indicates that there are new influencers and methods in modern product development. A future study could focus specifically on these innovative information gathering methods with the aim to develop an improved product development model that lists all the Web 2.0 avenues that are sought to assist with modern apparel product development.

OBJECTIVE 3: To determine at what stage of innovation adoption Web 2.0 social networking tools are being utilized by each firm for aid in apparel product development.

To accomplish Objective 3, the survey instrument developed for use in the structured interviews asked if and how the firm incorporated Web 2.0 social networking tools along any apparel product development processes. The third research question for this study asked: What stages of innovation adoption in regards to Web 2.0 are seen in different apparel companies? The following section details the levels of adoption of Web 2.0 social networking tools seen by the nine firms investigated.

<div align="center">

Innovation Adoption Theory

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The Innovation Adoption Theory (Rogers 1995), describes the five stages of innovation adoption:

1) Knowledge – initial exposure and gathering of information on an innovation

2) Persuasion – developing a favorable opinion of the innovation

3) Decision – choice to incorporate or reject innovation

4) Implementation – utilization of the innovation

5) Confirmation – Assessment of positive effects from innovation implementation

Each of the nine firms discussed in this study displayed different levels of adoption of an innovative technology, Web 2.0 social networking systems, into the apparel development processes. Rejection of adoption of the innovation is a

possibility discussed by Rogers where an opinion can be unfavorable and that the decision can be to reject the innovation. Professionals working directly in product development had the best experience with how their firm is incorporating social networking tools into product development, and were the best source to seek for uncovering what stage this innovation is being adopted into different apparel firms. This study analyzed the ways in which this innovation is being used by different firms for product development. Based on the participants' responses each firm was assigned to one of the five stages. There were varying levels of adoption of Web 2.0 social networking across the apparel firms. The responses to the interview questions investigating the utilization of Web 2.0 tools to execute each step along the product development cycle were analyzed. This constant comparative and open coding method of analysis aided in the development of understanding of the stage that each firm was in regarding its adoption of Web 2.0 technology into product development processes.

Firm 1: This small and developing collegiate apparel firm is in the Confirmation Stage of Innovation Adoption. The Confirmation Stage of Web 2.0 social media innovation is seen here as this firm has already passed through the first four stages of gathering knowledge of and slowly testing the innovation. This firm has adopted the innovation to a high degree in its product development processes, and both participants from this firm displayed an ability to discuss the many positive effects of implementation of the innovation.

This firm utilizes Facebook as a way to gather market research on new schools they would like to work with, on their target consumers (i.e., what brands they are fans of, what activities they are involved in at their school), and even as a way to find assistance for campaign shoots for the brand. Firm 1 also heavily relies on blogs for up-to-date industry information (i.e., market research). Blogs are used for general trending information and fashion industry updates. Social networking allows for an unfiltered view to upcoming trends and provides the ability to design with the most accurate image of this firm's consumers in mind.

Firm 1 is in the Confirmation Stage because two participants from this firm expressed that the adoption of Web 2.0 technologies has provided positive benefits for the brand. The two participants from this firm stated that they are open to further incorporations of innovative technology into their product development, merchandising, and or marketing efforts. This firm has fully adopted social networking and sees the benefits of further incorporation of innovative technology into their business practices.

Firm 2 – This small and established outdoor apparel firm is in the Decision Stage of Innovation Adoption. The Decision Stage is identified by this firm as it has already gathered information on the innovation of social networking tools, have developed an opinion on the innovation, and are now making the choice whether to adopt the innovation or not into their product development processes. Firm 2 has not adopted Web 2.0 social networking tools because it has made the decision that the

innovation does not align with the company's brand image. This firm has made the decision to avoid a heavy investment and involvement in new media platforms, and prefers to focus on their traditional forms of product development and consumer information gathering.

This firm's product development processes were found to be less consumer centric than other firms interviewed. While they do read consumer reviews of their product and value them for their ability "to create a better picture of our consumer", this firm overall has decided to not heavily invest or rely on social networking to assist with product development. This firm may not be interested in heavily incorporating Web 2.0 social networking tools into the product development process because of their lowered focus on incorporating consumer desires into product development.

Firm 3 – This small and established wholesale firm targeting the junior market is in the Decision Stage of Innovation Adoption. The Decision Stage is identified by the participant from this firm who reported the firm has already gathered information on the innovation of social networking tools, have developed an opinion on the innovation, and are now making the decision to adopt the innovation into their product development processes. Firm 3 has not yet adopted Web 2.0 social networking tools, but it has made the decision to begin incorporating the innovation due to a favorable opinion of the media.

This firm has a very basic website that only provides company contact information, and does not invite consumer interaction with the brand. The firm

decided, instead, that the best way to promote and get feedback from the teen community would be to develop a Facebook fan page and a Twitter page for the brands. The firm is in the process of creating a Facebook fan page and a Twitter page for their junior wholesale brands. The firm has decided to incorporate this innovation in order to gain consumer feedback on its specific brands to be utilized for the improvement of product development.

Firm 4 – This large and vested multimedia retailer is in the Confirmation Stage of Innovation Adoption. This firm has already passed through the first four stages of gathering knowledge and slowly testing the innovation. This firm has highly incorporated Web 2.0 into several of its product development processes and believes that the innovation has benefited the apparel development aims of the firm.

Firm 4 has a highly interactive website with consumer chat rooms and customer reviews for each product. The firm utilizes these tools to improve their products; the consumer reviews are read by the product development team and the information is used to improve the creation of new product.

The firm is also involved in Facebook. Its Facebook fan page is highly interactive and consistently reviewed by the product development team. This firm utilizes its Facebook fan page to strengthen the relationship with its consumers. One way that the firm does this is through having the show hosts directly interact with the customers who comment on the Facebook wall. This allows for the customers to develop a deeper and more personal relationship with the apparel firm. This firm highly utilizes Web 2.0 social media tools to better understand the desires of its target

consumers and better connect and build consumer loyalty is an example of a high level of innovation adoption.

Firm 5 – This small and developing private retailer is in the Implementation Stage of Innovation Adoption. The Implementation Stage is identified because this firm has already gathered knowledge and a positive opinion of the innovation, made the decision to adopt, and currently implementing and utilizing the innovation in their product development processes. This firm has become involved with Web 2.0 social networking tools, but has not utilized these tools to positively benefit its product development. This is the reason why this firm is not in the Confirmation Stage, and is only in Implementation.

This firm has a basic e-commerce site and receives traffic information and sales data for use in product development. This firm will soon be implementing an improved site with more interactive features. The firm is also involved in Facebook and Twitter, but is not currently engaging in communication on these social mediums. The firm realizes that more involvement in social networking will be useful to product development. This firm is not yet assessing benefits from investment in social networking technology, such as a strengthened consumer base or improved product development. This is why the brand is not yet in the Confirmation Stage and is still in the Implementation Stage of Innovation Adoption.

Firm 6 – This medium and vested manufacturing firm is in the Decision Stage of Innovation Adoption. This firm has gathered information on the social networking tools, developed an opinion on the innovation, and developed the decision to adopt

some Web 2.0 social media tools into the firms' product development processes. This firm has a website, but it is not interactive. The firm has made the decision to not invest heavily in their website because consumers can find information about their products on retailer websites and in stores. The firm has decided to develop both a Facebook and Twitter presence, and is beginning to build a presence on these sites with the aim of utilizing the mediums as a way to interact with their consumers. This firm has developed a favorable opinion of Web 2.0 social networking and has decided to begin adopting the innovations to assist with consumer information gathering for the future.

Firm 7 – This small and established women's wear firm is in the Implementation Stage of Innovation Adoption. The Implementation Stage is identified by this firm having already gathered knowledge and a positive opinion of the innovation, made the decision to adopt, and currently implementing and utilizing the innovation in its product development processes. This firm has become involved with Web 2.0 social networking tools, but has not utilized these tools to positively benefit its product development. This firm has adopted e-commerce on its website, as well as other highly innovative features. The website is not set up to allow for consumer reviews of the products, thus the firm is not using consumer reviews to improve product development. This is one of the reasons that Firm 7 is not in the Confirmation Stage.

The firm has a Facebook page and Twitter feed, but they were only developed out of an obligation, and are not assessed as a key source of information for the firm.

This is another reason why this firm has not moved to the Confirmation Stage of Innovation Adoption. The firm has implemented the innovations, but is not assessing the positive effects from complete interaction with its followers on either network. The firm could focus more heavily on developing itself on the social networks and allow for consumer reviews on its website. By developing a richer relationship with its online consumers, this firm could move to the Confirmation stage of Innovation Adoption.

Firm 8 – This medium and vested luxury goods firm is in the Implementation Stage of Innovation Adoption. This firm is in the Implementation Stage because it has already gathered knowledge and a positive opinion of the innovation, made the decision to adopt, and currently implementing and utilizing the innovation in their product development processes. This firm has become involved with Web 2.0 social networking tools, but has not utilized these tools to positively benefit their product development. This firm has a website as well as an e-commerce site, but they do not allow for interactive features such as consumer reviews or chat forums. The firm also has a Facebook fan page, but leaves it to consumers to talk to each other about the brand, instead of engaging conversations on the site. The firm has a Twitter page, but this is also left mainly for consumers to leave messages about the brand.

This firm has adopted Web 2.0 social networking tools, but still relies on traditional forecasting methods for information to use in forecasting. This firm is not in the Confirmation Stage as it has not assessed the benefits from full implementation of social networking into apparel product development processes. This firm could

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increase the interaction with consumers by allowing for reviews on its website, talking

with consumers on Facebook, or using Twitter for crowdsourcing. By pursuing a

higher level of adoption in these ways, this firm could move into the Confirmation

stage of Innovation Adoption.

Firm 9 – This large and vested luxury firm is in the Confirmation Stage of

Innovation Adoption. The Confirmation Stage of Web 2.0 social media innovation is

seen in this firm as it has already passed through the first four stages of gathering

knowledge of and slowly testing the innovation. This apparel firm has also assessed

the full benefits of implementation of Web 2.0 social networking tools into their

established product development cycle. Firm 9 has a highly interactive website and

allows for consumer reviews of each product sold online. These reviews are carefully

analyzed by the product developers of the firm. This firm has also assessed and

received positive benefits from its Facebook interaction with consumers. This firm

has highly incorporated Web 2.0 tools into its processes to improve the products

delivered to its customers.

Implications

Consumers worldwide, despite their differences, are finding a place to share

their thoughts and opinions with others online. All of the apparel industry

professionals interviewed said that their firm's target consumer group could be found

discussing fashion online. This study suggests that companies invest serious time and

talent in their online brand image. All of the firms discussed in this study had a website, but there were varying degrees of interaction allowed through this medium.

Companies should seek the highest level of interaction with their consumers on the website. For example, an apparel firm selling directly to consumers, should have a website with full views of products, allowing for consumer reviews of the products and services. Once the interactive website has been created, it should be continually monitored and responded to by the firm. This will allow customers a sense that the brand has a commitment to them as potential or active customers.

Firms were found to be in the Confirmation Stage of Innovation Adoption, the Decision Stage of Innovation Adoption and the Implementation Stage of Innovation Adoption. The small sample size of this study prevents direct correlations or generalizations to be drawn from comparing the results from these firm to others not analyzed. The fact that all of the firms analyzed were past the Knowledge or Persuasion Stages indicates an overall comprehension of Web 2.0 social networking tools and their potential for utilization within an apparel firms' processes. All firms were aware of social networking tools, but there were varying degrees of acceptance and utilization of the innovation. The findings from analyzing the stages of innovation adoption of these nine firms indicate that there is an understanding of the utility of social networking tools to the apparel product development, but that individual firms are adopting the innovation based on specific variables, such as brand image, target consumer base, or product category.

This study also suggests that useful consumer information can be gathered from a brand's reading of consumer reviews of its products on a company's website or blog. Through maximizing the virtual interaction with target customers, the firm will learn valuable information that can lead to increased success in the product development stage. Firm 1 connects with its target consumers from participating universities through Facebook and its website to ask them their opinion of the brand's products so that the consumers have an active role in the development of new product.

Companies should also aim to utilize the Facebook fan page and Twitter feed to their advantage. It may take time to develop the right mix of tone, message, and frequency of posting for each firm depending on the target consumers and product category, but a brand could gain a lot from a genuine available presence on these virtual platforms. The interview concluded with exposure to examples of Web 2.0 tools, including the five most influential fashion blogs, as rated by Signature-9. The apparel industry professionals rated the fashion blogs positively. Those participants in design positions provided examples of many blogs that they view on a daily and weekly basis to stay abreast of trends and aesthetics in the fashion industry. This study suggests that fashion blogs can be a valuable source for inspiration for designers as well as other apparel product developers.

Two major drawbacks to incorporating blog viewing into the search for inspiration were revealed in this study. First, the search for the right blog to follow takes time. Identifying initial blogs that are relevant to the firm to follow can be daunting as the list grows daily. The second drawback is the unreliability of the

medium. The blog writer is expressing an opinion, isn't necessarily an expert, or could stop blogging at any time. There are, however, many guides to highly ranked fashion and style blogs, such as the Signature-9 list, that can take the risk out of finding a reliable blog to follow. This study found that blogs can provide a great perspective on street trends, runway trends, global fashion trends, and perspectives for unique sources. This study indicates that blogs should be utilized for the invaluable source of possible inspiration for apparel developers.

Twitter is a reliable and frequently updated source for fashion industry news. The method in which messages are delivered on Twitter, short messages updated instantly, is perfect for providing apparel industry developers a reliable method to seek for recent information pertaining their interests. When exposed to the Style.com Twitter feed, participants had very positive things to say about the link. Fashion industry leaders should follow relevant Twitter feeds for reliable and instant fashion information that may assist with product development and general knowledge necessary for sustained success in the fashion industry.

This study found that MySpace is not being utilized by apparel product developers to any degree. Not one of the nine apparel firms interviewed had a MySpace page. When exposed to the MySpace fashion forum, which contains thousands of user reviews of fashion trends, fashion brands, and product information, apparel developers said they would not utilize the site as a source of information. Many of the respondents felt this way because of the inability to search and narrow down the large amount of information. Others felt their firm had a focus on a

particular market share, so they wouldn't be looking for such a wide range of consumer opinions.

Suggestions for Future Research

This study indicated that there should be further research into apparel companies' websites. Every firm interviewed had a website, but there was not a prescribed list of what was put on the website and for what reasons. Research could analyze different firm's websites and address how the site is developed, monitored, and updated by the firm, and what the Return on Investment (ROI) would be for specific website initiatives. This research could be very useful in developing greater understanding of what works best for an apparel firm's website to achieve the most success for the firm.

This study was able to question apparel developers about their use of social networks. Further research could focus on the success of objectives and messages delivered through specific social networks. Future research should also analyze influential fashion blogs to further understand their power in the fashion industry. A study could poll fashion designers and then analyze the content and style of the best and worst blogs as voted by the respondents. The Revised Apparel Product Development model (Wickett, et al., 1999) facilitated great understanding of the generalized product development processes. Future research could focus on a singular highly innovative firm and develop a new product development model which shows all of the innovative steps adopted and incorporated by the firm.

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This study merely taps into the wide range of questions that can be asked regarding the utilization of Web 2.0 in the apparel industry. The marketing benefits or e-commerce sales effects of a firm's exposure in the online world have been discussed by academic research, but this research is new in exploring social networking and how it effects the product development cycle in an apparel firm. Future research can delve into the benefits of specific social networking initiatives in the aim of shedding more light in an arena that promises to continue to grow in importance to the fashion industry.

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APPENDICES

Appendix A

INITIAL EMAIL

University of Delaware
Department of Fashion and Apparel Studies
Newark, DE 19716

My name is Shahera Williams and I am a graduate student in the Fashion and Apparel Studies Department at the University of Delaware. I am conducting my master's thesis on the use of social networking tools to assist with product development processes in an apparel firm. In order to understand the current methods employed to forecast and develop new apparel products, I will be conducting one-on-one interviews with fifteen apparel professionals. I hope that you can assist me with identifying the right participants for my study.

I am targeting professionals that work within the marketing, merchandising, design, or production teams within an apparel firm for face-to-face or Skype interviews. Each interview will last about an hour and participants will have an opportunity to review interview questions prior to the scheduled conversation. There is little to no risk involved with this study as participation is voluntary and all data will be kept confidential.

While participation in this study will not be compensated, the professionals involved will have the opportunity to discuss and consider an innovative forecasting technique for use in their company and position. The professionals will also be assisting with the data collection and development of research that could lead to the creation and implementation of forecasting and data collection techniques that utilize online consumer information.

I would appreciate any help you could provide with securing participants for the interviews. If you or any individuals you know work within the marketing, merchandising, design, or production teams of an apparel company, please contact me by email at shaherawilliams@gmail.com. Interviews will be conducted during February or March of 2010. Please reply back as soon as possible with any professionals who may be contacted to schedule an interview with me during that time.

Thank you for your time and consideration.
Sincerely,
Shahera Williams
shaherawilliams@gmail.com

Appendix B

HUMAN SUBJECTS PROTOCOL

148294-1

University of Delaware

Protocol Title: Forecasting 2.0: Using Web 2.0 for Market Research in Apparel Product Development

Principal Investigator
    Name: Shahera Williams
    Department/Center: Fashion and Apparel Studies
    Contact Phone Number: 614-805-1968
    Email Address: sywill@udel.edu

Advisor (if student PI):
    Name: Dr. Belinda Orzada
    Contact Phone Number: 302-831-8709
    Email Address: orzada@udel.edu

Investigator Assurance:

By submitting this protocol, I acknowledge that this project will be conducted in strict accordance with the procedures described. I will not make any modifications to this protocol without prior approval by the HSRB. Should any unanticipated problems involving risk to subjects, including breaches of guaranteed confidentiality occur during this project, I will report such events to the Chair, Human Subjects Review Board immediately.

1. **Is this project externally funded?** YES

If so, please list the funding source:

Yes, University of Delaware Alumni Enrichment Award.

2. **Project Staff**
Please list personnel, including students, who will be working with human subjects on this protocol (insert additional rows as needed):

NAME	ROLE	HS TRAINING COMPLETE?
Shahera Williams	Principal Investigator	Yes

3. **Special Populations**
Does this project involve any of the following:
Research on Children? NO

Research with Prisoners? NO

Research with any other vulnerable population (please describe)? NO

4. **RESEARCH ABSTRACT** Please provide a brief description in LAY language (understandable to an 8th grade student) of the aims of this project.

This qualitative research study aims to examine the use of Web 2.0 social networking tools to conduct market research within the apparel product development process. Fifteen apparel industry professionals will be interviewed on the use of Web 2.0 applications such as Facebook, MySpace, Twitter, and fashion blogs in their positions and within their firm. The purpose of this study is to investigate the connection between apparel product development and Web 2.0 consumer data collection. This study aims to understand if Web 2.0 applications could be utilized as a reliable primary data collection source for apparel developers. Responses to thirteen topic questions will be analyzed and coded. Relevant themes will be discussed.

5. **PROCEDURES** Describe all procedures involving human subjects for this protocol. Include copies of all surveys and research measures.

Fifteen apparel industry professionals who are in positions that contribute to product development product developers will be contacted and interviewed one-on-one, either face to face or through the use of Skype. A list of interview questions will be asked of each participant and responses will be audio recorded. The questions are about the participant's position and their firm's product development processes. No personal questions will be asked. Participants will be also sent to eight websites and the researcher will record each subject's opinion of that site. This research design aims to provide the industry professionals with the opportunity to offer their specific experience and insight, predictions, views, and ideas about Web 2.0 consumer research and apparel product development. The data collected will be analyzed through the constant comparison process to identify overarching themes. These will then be presented as final results and suggestions for industry growth.

6. **STUDY POPULATION AND RECRUITMENT**

Describe who and how many subjects will be invited to participate. Include age, gender and other pertinent information. Attach all recruitment fliers, letters, or other recruitment materials to be used.

Non-probabilistic sampling will be utilized in this study, and purposeful sampling will be employed to gather a sample of 15 apparel developers who are currently in positions within the marketing, merchandising, design, or production teams within an apparel firm. A convenience sample of fifteen apparel industry professionals will be gathered using a selective variation strategy. Participant's position, company size, and specialization will be considered as selective criteria to ensure the best possible range of participants in roles across the apparel product development process in firms with different target consumers. Participants will be recruited for the study through an email to an initial industry contact list created through the author's associations. This email will also ask recipients to refer others in similar positions across other companies to be contacted for the study, and using this snowball effect, a selective yet varying sample will be created for study. The initial contacts work in the US apparel industry.

Describe what exclusionary criteria, if any will be applied.

Participants must currently have a position within the apparel industry.

Describe what (if any) conditions will result in PI termination of subject participation.

If three attempts have been made to schedule and reschedule an interview with a subject but they are still unable to find time to conduct the interview, the PI will terminate that subject's participation and attempt to find a replacement participant.

7. **RISKS AND BENEFITS**
Describe the risks to participants (risks listed here should be included in the consent document).
If risk is more than minimal, please justify.

There are no known risks to taking a part of this study and only minimal risk related to the disclosure of work related information to an individual not within the company. There is also minimal risk related to the possibility of discovering a subject's identity from their title and company name reported in the findings.

What steps will be taken to minimize risks?

The interviews will take place at a location of the participant's choosing – either a public eatery or their own office – but a quiet location where an interview can be

conducted with minimal exposure and distraction. This will ensure that the participant is comfortable in the interview location whether public or private, and that the interview is conducted efficiently.

All data drawn from the interview will be kept confidential. During the interview process, only a first name and randomly assigned number will link the subjects to their responses. Once this data has been collected, answers will only be connected to the position, company, and randomly assigned number. No names will be used in the report of findings, but company name and title must be used and there is a possible risk of identity being gleaned from this information.

Describe any direct benefits to participants.

Participants will have the opportunity to discuss and consider an innovative forecasting technique for their company and position.

Describe any future benefits to this class of participants.

This interview may spark in house discussions on improving product development techniques.

If there is a Data Monitoring Committee (DMC) in place for this project, please describe when and how often it meets. NO

8. **COMPENSATION**
Will participants be compensated for participation? NO.

9. **DATA**
Will subjects be anonymous to the researcher?

No, the researcher will know the identity of subjects.

If subjects are identifiable, will their identities be kept confidential?

All data drawn from the interview will be kept confidential. During the interview process, only a first name and randomly assigned number will link the subjects to their responses. Once this data has been collected, answers will only be connected to the position, company, and randomly assigned number. No names will be used in the report of findings, but company name and title must be used and there is a possible risk of identity being gleaned from this information.

How and how long will data be stored?

The data (audiotapes of interviews) will be stored indefinitely in a locked box within Dr. Belinda Orzada's University of Delaware Office.

How will data be destroyed?

The data will be kept indefinitely for use in possibly preparing thesis for publishing or the development of follow-up studies.

How will data be analyzed and reported?

The audiotapes will be transcribed and coded to identify related themes.

10. CONFIDENTIALITY
Will participants be audiotaped, photographed or videotaped during this study?

Yes, audiotaped, but if they decline, extensive notes will be taken to ensure thorough data collection.

How will subject identity be protected?

All data drawn from the interview will be kept confidential. During the interview process, only a first name and randomly assigned number will link the subjects to their responses. Once this data has been collected, answers will only be connected to the position, company, and randomly assigned number. No names will be used in the report of findings, but company name and title must be used and there is a possible risk of identity being gleaned from this information.

Is there a Certificate of Confidentiality in place for this project? (If so, please provide a copy). NO

11. CONSENT and ASSENT
_x_ Consent forms will be used and are attached for review.

12. Other IRB Approval
Has this protocol been submitted to any other IRBs? NO

13. Supporting Documentation
Please list all additional documents uploaded to IRBNet in support of this application.
-Interview Questions – list of questions and exposure sites that each subject will be asked and shown.
-Consent Form
-Initial Email – email that will be sent to prospective participants to secure their involvement.

Appendix C

INFORMED CONSENT INFORMATION

You are invited to take part in a research study about the use of Web 2.0 social networking tools to assist with product development processes in an apparel firm. This study is being done by me, Shahera Williams, a graduate student in the Fashion and Apparel Studies Department at the University of Delaware. About 15 apparel industry professionals will take part in this study. You are being asked to participate because of your position within the apparel industry. You will be asked a list of questions related to your position and your firm's product development processes. No personal questions will be asked. There are no known risks to taking a part of this study and only minimal risk related to the disclosure of work related information to someone outside of the company. To minimize this risk, the interviews will be conducted in a quiet location of your choosing.

Your participation in this study is voluntary and you may withdraw at any time. Refusal to take part in this study will result in no penalty or loss to you. You may change your mind at any time and you have the ability to not answer any question you feel uncomfortable with. If you agree to take part in this study, you will be asked a series of questions related to 13 categories. You will also be asked to view eight websites and provide your opinion. The amount of time needed to complete this interview is approximately one hour. Your responses will be audio recorded for use in the analysis process.

All data drawn from this interview will be kept confidential. The consent form will remain separate from your responses to the interview. During the interview process, only a first name and randomly assigned number will link you to your responses. If published, the results will be released as relating back to a company, a position, and the randomly assigned number. There is minimal risk that your identity could be gleaned from this information. Data gathered during this study may help researchers or apparel firms with developing ways to better utilize online consumer information. Results of these interviews may be published and shared with apparel and technology researchers as well as other companies.

If you have any questions about participation in this study, please contact Shahera Williams at (614)805-1968, or Dr. Belinda Orzada, the advisor of this study, at (312)831-8709. You may also contact the University of Delaware Human Subjects Review Board, 302-831-2137.

Please sign below if you are willing to take part in this study. Your signature indicates that you have read and agree with the information provided above. Thank you for your assistance.

Signed _____ Date _____
Please Fax Signed Consent Form to 302-831-6081, Attn: Belinda Orzada. Thank you!

Appendix D

INTERVIEW QUESTIONS

1. Product Development - How is product development conducted in your company? Which positions have input in the production process? What level of involvement do you have in the process?
2. Company Website - Does your company have its own website? If yes: What information is being collected from consumers on the site? How is this information being used by the apparel firm? What can consumers do on this website? Are there any interactive applications on the site, such as consumer comments or reviews? If no: Why not? How can consumers find out more information on your brand and products? How does your company reach consumers who cannot physically visit a store?
3. Search of Trends - In your position, do you contribute to an inspirational search of fashion trends, domestic or global? What methods does your company use to forecast fashion trends? Do these methods include monitoring of consumer fashion sites on the Internet? Why or why not?
4. Target Customer Base – In your position, do you contribute to an understanding of your target customers? How is consumer research conducted by your firm? Do these methods include monitoring of Internet fashion sites? Why or why not?
5. Theme Development – In your position, do you contribute to the development of the new apparel line theme? Which of the following decisions do you provide input in? (e.g., Palette Development, Fabric Design Decisions, Silhouette and Style Decisions, Structural Fabric Decisions, Prototype Patternmaking, Construction). Please provide any other theme development tasks undertaken by you or your apparel firm. If none, why does your firm not develop their new apparel line themes?
6. Marketplace Research – In your position, do you contribute or conduct marketplace research? How is marketplace research conducted by your firm? Do these methods include monitoring of Internet fashion sites? Why or why not?
7. Line Adoption – In your position, do you contribute to the presentation of the line or the approval of new apparel lines for adoption by the firm? What does your firm do to prepare for line presentation and to review proposed apparel lines for adoption?
8. Technical Development – In your position, do you contribute to the technical development of new apparel lines? Which of the following processes do you

provide input for? (e.g., Fit and Style Perfecting, Production Pattern Making, Materials/Garment Specification Writing, Retail Firm Development, Manufacturer Development). Please provide any other technical development tasks undertaken by you or your apparel. If none, why does your firm not technically develop new apparel lines? What processes are undergone to develop apparel lines into acceptable product samples for mass production?

9. Competition and Media – In your position, do you contribute to the understanding of your firm's competition or what is being discussed in the media on your brand, fashion trends? What type of information on the competition or the media does your firm collect and how do they gather this information? If not, why does your firm not collect information on the competition or media?

10. Social Networks – Have you ever been on Facebook, MySpace or Twitter for personal use? For professional use? If no, why not? Do you think your target consumer could be found on any social network? Does your company have a presence on any of these networks? Do you currently view any of these sites as a part of your job? Do you think there is anything on these sites that could help you in your position?

11. Influential Fashion Blogs - Have you ever viewed/visited an online fashion blog? If no, why not? If yes, which ones, how frequently and what was your opinion? Do you think your target consumer visits this type of site or has their own fashion blog? Do you currently view any blogs as a part of your job? Do you think there is any information available on fashion blogs that could help you in your position?

12. Other Web 2.0 applications – Is your company involved in any Web 2.0 applications (Does your firm have an online presence to any degree)? If no, why not? If yes, which ones and why were they selected for involvement by your firm? Do you search any applications while conducting your job? Do you think that there is any information on these applications that could be useful to help with product development or consumer research? What types of communication is occurring between brand and consumers, and what is the benefit for each party?

13. Exposure and Questioning - The interviews concluded with a short explanation and display of the following examples of fashion discourse on Web 2.0 applications and blogs. Participants were asked if such information would be useful to their company, or in their position, in efforts to positively impact sales.

    1) Facebook Fashion brand group - Victoria's Secret - http://www.Facebook.com/search/?q=fashion&init=quick#/victoriassecret?ref=ts

    2) MySpace Fashion Forum Room- http://forums.MySpace.com/1919.aspx?fuseaction=forums.viewforum

3) Twitter Fashion Feed by Style.com
http://Twitter.com/styledotcom
4) Influential Blogs:
a) "The Sartorialist" – http://thesartorialist.blogspot.com/
b) "HighSnobbiety" - http://www.highsnobiety.com/news/
c) "The Cut" - http://nymag.com/daily/fashion/
d) "Fashionista" - http://www.fashionista.com/
e) "Stylelist" - http://www.stylelist.com/