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The Lowest Cost at Any Price: The Impact of Fast Fashion on the Global Fashion Industry

Abstract

The fast fashion industry is one facet of the multi-billion dollar global fashion industry. Fast fashion is the latest business model trend in the fashion industry. These firms aim to provide low-cost, low-quality, trend based clothing to consumers at unprecedented speeds. In order to do so, these firms use unethical and exploitative cost cutting methods in order to lower production costs and maximize profits. This study examines the fast fashion business model and its unethical practices in the broader context of the global fashion industry. Economic models and theories are used to explain how fast fashion went from a competitive fringe to a global profit leader, and how these firms can create empires based on unethical business practices.

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Thesis Title: The Lowest Cost at Any Price: The Impact of Fast Fashion on the Global Fashion Industry

LAKE FOREST COLLEGE

Senior Thesis

The Lowest Cost at Any Price: The Impact of Fast Fashion on the Global Fashion Industry

by

Megan Lambert

December 1, 2014

The report of the investigation undertaken as a
Senior Thesis, to carry two courses of credit in
the Department of Economics, Business, and Finance

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Les Dlabay

Abstract

The fast fashion industry is one facet of the multi-billion dollar global fashion industry. Fast fashion is the latest business model trend in the fashion industry. These firms aim to provide low-cost, low-quality, trend based clothing to consumers at unprecedented speeds. In order to do so, these firms use unethical and exploitative cost cutting methods in order to lower production costs and maximize profits. This study examines the fast fashion business model and its unethical practices in the broader context of the global fashion industry. Economic models and theories are used to explain how fast fashion went from a competitive fringe to a global profit leader, and how these firms can create empires based on unethical business practices.

Dedication

To all the friends, family, professors, and strangers who listened to me speak of nothing but labor exploitation and design piracy for five months.

Acknowledgments

Thank you to my wonderful committee for providing guidance and support through this process. This would not have been possible without the industry professionals who assisted with interviews and debates. Also, thank you to Kathleen Lambert for editing the final draft—and all of my other college papers.

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Introduction:

In Dhaka, a nine-year-old girl named Meem sits on a concrete floor of a nameless factory, snipping threads on collars and cuffs for blouses that will travel across the globe. When her mother became pregnant and could no longer work, Meem left school to help provide for her family. She works twelve hour shifts, with an hour break for lunch; her paycheck amounts to twenty-eight USD per month if she works seven days a week. With the exception of a half day on Fridays, no time off is allowed. The room is small, crowded, and hot even on days when the three industrial fans work. There are no fire extinguishers and the space is filthy.

Meem's glittery hair clips are her most prized possessions; she has eleven, her parents allow her to buy one per month with her earnings. One day, a new child begins work at the factory; she is scared and bursts into tears during her work. Meem, without thinking twice, takes the clips from her hair and presents them to the crying girl. The sense of community in the workroom is strong. Workers protect each other from the wrath of the owner. Meem double-checks the new employee's work, just as the fifteen-year-old machine operator quietly snips any threads Meem misses. Despite child labor laws and compulsory education laws, there are many children working full-time in garment factories around the world. This is the only life Meem will ever know; her dream is to one day work in a larger factory as a sewing machine operator because they pay higher wages. This selfless child will only ever know back-pain and hardships. While "fast fashion" manufacturing has provided economic opportunities for workers in countries like Bangladesh, the work requires so many hours that the workers cannot enjoy any money they may have left over (Aulakh).

In Paris, nearly five thousand miles from Dhaka, clothing is produced in a very different manner. Design and innovation are put far ahead of cost. Mireille is the manager of Jean Paul Gaultier's couture atelier. She is a middle-aged woman who is professionally trained in couture sewing. The work is complex and sometimes tough on her back and hands, but professional massage therapists visit the studio to provide relief during breaks. At the end of a runway show she is exhausted but shown appreciation through accolades and champagne. She creates the extraordinary artistic visions of her employer and is well compensated for her efforts. She loves her job; she loves couture. She is happy to spend her days, and sometimes nights, creating beautiful, well-made clothing. Fashion should be a dream job, not a life sentence.

These two cases exemplify the extremes of the fashion industry. Both women produce clothing, but in very different conditions. The fashion industry is a dynamic and diverse segment of the global marketplace. The global fashion industry is valued at around 1.5 trillion dollars (Amed). Millions of jobs come from the fashion industry, ranging from sewing machine operators in Honduras to fashion magazine editors in chief in New York City. Fashion has a large impact on the World's economy, and on society as a whole. There is more to the fashion industry than just pretty dresses and runways. We live our lives in clothing, we express ourselves through clothing, and many people earn their livings by creating clothing. Not all aspects of the industry are soft and sparkling; the means by which some clothing is created are not perceived by all to be ethical. The ethics of the fashion industry are a key segment of this diverse business and will be a consistent theme throughout this work.

Profit-seeking companies pursue the lowest cost methods of production, according to accepted capitalist economic theory. Certainly this has been witnessed in the

recent decades of the fashion industry as the industry adjusts to changes in the global marketplace. Companies within the fast fashion segment often choose to use less ethical and more exploitative practices in order to achieve this goal.

For the purpose of this study, exploitation is defined based on the neoclassical definition of wage exploitation and the “hard-times” definition of working condition exploitation. Neoclassical exploitation occurs when wages are below the value of the marginal product of labor. The “hard-times” definition of exploitation is an all-encompassing view, which considers both conditions and wages. Exploitation occurs in the manufacturing sector of the fashion industry; firms exploit vulnerable populations through low wages and inadequate safety investment. Unethical business practices occur during the design phase of the supply chain. Design piracy, although it is legal, is an unethical business practice in the fashion industry. Profiting off the designs of others is commonplace in the industry; nevertheless, those who rely on design theft are considered disreputable by other firms.

This thesis explores the means by which fast fashion firms cut costs in the supply chain to maximize profits. The fast fashion business model relies on fast product turnover of low-cost, trend-based clothing. Recent changes in technology and trade make operating a global supply chain easier and more affordable for many industries. Globalization and technology make it possible for the fast fashion industry to flourish. Each chapter in this study examines different aspects of the supply chain and the industry as a whole in order to determine the ethicality and viability of the fast fashion business model.

The first section provides a context and lexicon necessary to understand the broader implications of the fast fashion industry. Each segment within the fashion

industry maximizes profits using strategies specific to their target market. Some segments rely on brand recognition while others depend on low prices and deep discounting. Game theory models help to illustrate the strategic decisions that firms in different segments use to maximize expected profit in a highly volatile market. Consumer behavior is of the utmost importance within each segment; firms who understand their target markets have the best chance to gross high profits. The fast fashion market employs a number of strategic decision models to best target their customers. Providing a multitude of low-cost products in trendy designs allows these firms to perpetuate an endless cycle of buying. The main challenge for these firms is keeping costs low while turning a profit. In order to do this many firms resort to unethical and exploitative business practices.

The second and third sections examine the unethical and exploitative practices employed by many fast fashion firms. First, intellectual property laws and applications provide evidence to support how fast fashion firms profit from stolen designs. Industry perspectives provide insight into the effects of design piracy and the unethical nature of the practice. Limiting research and development costs by copying the designs of other manufacturers is the first step in this supply chain. Next, firms further cut costs in the manufacturing steps of the supply chain by contracting with factories which pay low wages and neglect worker safety. Economic models provide support for the exploitative nature of manufacturing practices in the fast fashion industry; imperfect labor market conditions allow firms to exploit labor and create dead weight loss. Labor market structures and government corruption and inefficiencies in developing countries provide an environment where exploitation is possible.

Each chapter of this study builds on a common theme. Fast fashion is a viable business model given the current marketplace landscape; however, any number of

seemingly small changes can devastate the industry's bottom line. Observing the unethical and exploitative practices within the industry shows the potential threats the fast fashion as a business model. Currently, fast fashion firms have few reasons to use ethical practices of production. Changes in consumer behavior, international law, or domestic laws may force multi-national corporations in the fast fashion segment to revise their business model. For the time being, firms in the fast fashion freely use unethical and exploitative practices in order to cut costs and maximize profits.

This study utilizes the limited supply of scholarly articles regarding the fast fashion industry and applies economic theories and updated information to the original findings. Many scholarly works relating to fast fashion do not take into account ethics violations, or are outdated, given recent changes in the industry. The use of scholarly articles, textbooks, popular non-fiction, popular press articles, first person interviews, and my own knowledge from work experience and prior studies in the industry provide support and evidence for my claims. This study provides a new perspective on the profit giants in the fast fashion industry and utilizes economic theory to explain industry behavior and potential future outcomes.

Chapter One: Industrial Organization

The fashion industry is in a transitional period. Over the last twenty years the industry structure changed due to changes in technology, consumer purchasing habits, and globalization. The fast fashion market segment is the result of these changes. Fast fashion firms utilize available high-speed production in developing economies to provide up-to-the-minute designs in order to appease high consumer demand for low cost products.

This chapter defines each segment of the industry and uses real world examples of how firms interact and exist in the industry. The fast fashion market affects the fashion industry as a whole; it is important to recognize the impact market segments have on each other and to distinguish where the competitive advantage lies for fast fashion firms. This chapter also looks at the nature of fast fashion firms and their ability to use enhanced design and rapid production in order to become profit leaders in a market which was typically led by luxury firms.

Fast fashion firms are able to become profitable and competitive as a result of design piracy and labor exploitation. This section frames the industry and shows the contrast between traditional fashion firms and fast fashion firms. The practices of the fast fashion industry are affecting the industry as a whole and are leading firms in other segments to exit the market or to use cost-cutting methods of their own. The fast fashion business model relies on unethical cost cutting in order to exit the competitive fringe and compete with traditional industry leaders.

I. Market Segmentation

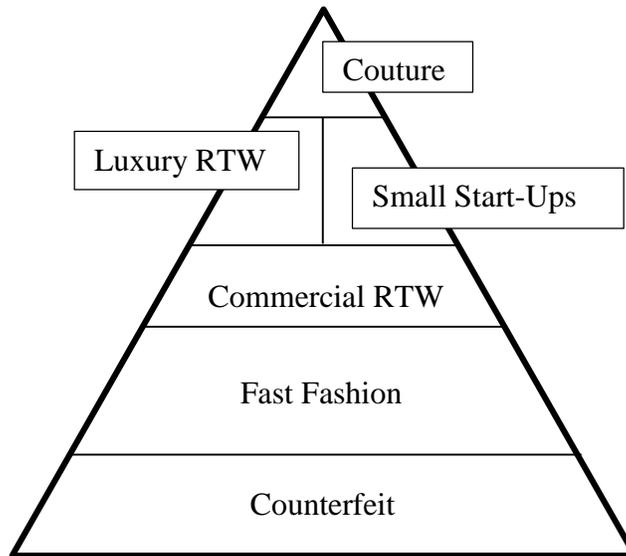
In order to best convey the economic importance of the fashion industry, as well as the global effects of changing industry practices, a vocabulary must be established. Clothing is, as defined by *The Economist*, a “positional good.” Positional goods are commodities which are purchased to keep up with society or to “say something” about the owner (“Positional Goods”). Typically, positional goods refer to luxury items. However, the definition in this study must go beyond *The Economist* perspective. All clothing is part of the greater fashion industry. Clothing, no matter which brand or price level, reflects a message about the wearer.

Clothing serves three purposes: functionality, artistic expression, and self-expression. Even without conscious understanding, every garment purchased is a part of a larger picture. Every person who wears clothing is a part of the fashion industry. People choose which designer’s artistic visions they wish to support, or they exclude themselves from the artistic side of the industry by purchasing purely functional “basics.” It is this psychological need to reflect one’s identity through clothing that will prove valuable to industry activists attempting to change the ethical dilemmas facing firms. Identity may be utilitarian or fantastical; the diverse market offerings allow people to differentiate themselves through clothing.

The fashion industry is broken down into a pyramid based on prestige and segment size. This pyramid structure does not necessarily indicate a strict socio-economic breakdown of consumers; instead, it indicates a relative model of average price points. This structure is common knowledge to those who work in and study the industry; it is well defined in "Intellectual Property Rights on Creativity and Heritage: The Case of the Fashion Industry," a study on the role of “creativity and heritage” in intellectual property

for the fashion industry by Christian Barrère and Sophie Delabryère (316-318). This study uses an altered version of their hierarchy: a similar structure is used with the addition of a new bottom tier to separate fast fashion from illegal counterfeit goods. This study also separates commercial ready-to-wear and small business designers into separate categories.

Figure 1.1: Industry Pyramid



Source: adapted from Barrère, Delabryère 316-318

Each market segment—haute couture, luxury and commercial ready-to-wear, start-ups, fast fashion and counterfeits—uses a different strategy to maximize profits. Firms differentiate themselves in oligopoly markets using methods specific to their target market. Branding, price, quality, availability, reputation, and sustainability are just a few of the main tools used by fashion marketers. For example, luxury firms rely on strong brand reputation and consumer value of trademarks as a status symbol and indicator of wealth. Couture represents the epitome of quality and taste and is, in itself, a marketing tool for firms with diverse market offerings. Fast fashion, on the other hand, does not rely on traditional marketing and branding tools; the fast fashion model relies on consumers

making shopping a habit. Low prices and high product turnover make this a sustainable habit for consumers at many economic levels.

i. Haute Couture:

The haute couture industry, which translates from French to ‘high sewing,’ is constantly on the verge of irrelevance (Collins 1). Despite growing demands from Asian markets, there are only approximately four thousand women who are considered couture shoppers (Langley 1). To be considered an haute couturier one must be registered with the French government; all couture garments must be entirely made by hand and can take hundreds of hours to complete (Sherman 1). Couture collections come out twice a year, although many couturiers make old collections available to clients (Sherman 1).

There are always businessmen, such as the former head of Yves Saint Laurent, Pierre Bergé, and journalists predicting the impending “death of couture,” and yet it manages to hang on (Langley 1). Couture creates a dream world for wearers and spectators; it is wearable art that transcends commercial fashion. Globalization is encouraging new markets to embrace and demand couture. Emerging markets, such as China, want a piece of the couture market (Schultes). Perhaps this is a rebellion to communist roots; years of communal wealth philosophy and homogeneity is the exact opposite of everything couture represents. Regardless of the rationale, the couture market still exists and as long as there is demand in a market and profits to be made producers will try to fill the market need.

Despite concerns, the couture industry remains a prominent segment of the fashion industry because of its marketing value. Although the market is small and the fact is that even industry expert Jean-Jacques Picart admits that “no matter how successful you are, you can't make a profit from couture,” couture remains relevant in the industry

as an outlet for designer's artistic pursuits, and as an inspiration for consumers at every level of the market. The goal of couture is to boost sales in a non-traditional manner. Instead of cutting costs at every corner, couturiers create lavish collections to add brand value. In the past few decades couture became a marketing tool for designers. Couture is the artistry behind many large fashion corporations and the creativity from couture pushes sales of ready-to-wear and beauty products. The average person who cannot "afford a single piece of couture can still buy a share of the dream" with the purchase of designer perfume, lipstick, or wallets (Langley 1). Couture houses create a fantasy; women who buy couture or other products from couture houses are buying into a dream world and a reputation.

Loaning couture to high profile customers is one technique used by couturiers to market their brand. Many couture wearers do not pay for the couture they wear; celebrities often borrow couture gowns for award shows, red carpet events, and galas (Freydkin 1). Loaning out couture is a controversial issue in the fashion industry. Celebrities, such as Lady Gaga, Katy Perry, and Mariah Carey, are criticized for borrowing and ruining or losing dresses worth tens of thousands of dollars (Schuster 1). Despite the potential losses and the fact that many top name celebrities can afford to buy their own couture, designers continue to lend in order to reach markets that will purchase their smaller luxury items. Couture is used mainly as a marketing technique for firms. Designer's loan out couture for the same reason they feature couture gowns in their perfume ads; fantastical designs build brand image and create a fantasy for consumers at every socio-economic level. The old adage "you have to spend money to make money" is the easiest way to explain the monetary value of producing couture. The wealth gap continues to grow around the world; eighty-five people control more money than the

poorest 3.5 billion (Klein). Half of the world's population controls less than 1% of total wealth (Klein). A smaller and smaller portion of the population controls increasingly more of the wealth. In a world of dramatic inequality couture serves as both an access point for the masses to visually experience the world of the ultra-wealthy, but it is also a status symbol for the elite.

Traditionally, couturiers controlled the industry. Couture trends trickled down to the rest of the market. Creating couture is an exclusive right for a licensed few; this resulted in a small group of firms which controlled consumer opinion. Firms in lower levels of the period who complied with trends would succeed; those who did not would fail. Over the years, as couture become less prevalent, luxury ready-to-wear firms took on the role of opinion leaders.

ii. *Luxury Ready-to-Wear (Prêt-à-Porter):*

Ready-to-wear fashion is a reasonably new concept on the fashion timeline. Before the industrial revolution clothes were made at home. Only the extremely wealthy purchased clothing from ateliers or dressmakers. The automatic sewing machine and assembly line practices revolutionized the fashion industry and brought industrialization to developing economies including England and the United States.

Fashion shows around the world feature luxury ready-to-wear every "season." The industry recognizes six fashion seasons, although not every designer shows for each season. These seasons include: spring, summer, transitional, fall, resort, and holiday (Jimenez, Kolsun 3). Spring collections will walk the runway in the autumn. Designer shows take place during "Fashion Week" which occurs in various cities throughout the season. The 2015 spring collections, for example, showed at New York Fashion Week on September 3rd, Milan on the 17th, and Paris Fashion Week on the 23rd.

In theory, luxury ready-to-wear differs from other ready-to-wear because it is made from high quality materials, displays clear voice and creativity, and carries a level of brand name prestige. Luxury, also referred to as “designer,” clothing should be made with high quality production techniques and should employ fair labor practices and encourage creativity. Luxury ready-to-wear should be the segment of the fashion market which bridges creativity and commodity in an accessible way. Vogue Italy, which is considered to be the beacon of fashion knowledge and the determiner of taste, defines luxury as craftsmanship, innovation, and a symbol of richness (Sozzani). The Academy of Couture Art defines luxury ready-to-wear with words such as “exceptional masterpiece,” “know how,” “dream,” “technological boldness,” and “assertion of social status” (Academy of Couture Art). In recent years the increasing speed of innovation required to satisfy consumers makes this difficult. Some brands known as luxury designers are producing garments using similar supply chains and production facilities as commercial ready-to-wear or fast fashion firms.

Luxury ready-to-wear firms, in response to pressure from other industry segments, attempt to cut costs in quality to raise profit margins. Firms, such as fashion brand group and luxury conglomerate LVMH, put business before fashion. In an exposé, “Deluxe: How Luxury Lost its Luster,” Dana Thomas explains the shift in business model at even the top of the market. Thomas explains how CEO Bernard Arnault morphed remarkable, high-quality, and innovative firms—such as Christian Dior, one of the greatest fashion visionaries and couturiers of the 20th century—into profit driven, corner-cutting, overly branded corporate fashion businesses. There remains a quality gap between the highest and lowest segments of the market; however, as consumer tastes and

buying habits change luxury brands are able to cut costs in quality to increase branding power.

Although the luxury market is still a trend leader, there is some question as to whether or not mass market luxury is truly worth the markup. Belgium fashion designer Hugo Pieters believes that industrializing the fashion industry is the root of the cheapening of fashion brands. He explained to *The Guardian* that companies which are now considered luxury brands got their start as small, handmade operations which focused on design and quality. He goes on to say that after industrialization consumers were “no longer getting the bespoke service but the markups remained the same. So now the heritage of what people are buying into isn't what is being delivered" (Borromeo 1). The luxury market remains a leader for trends, however the overall quality and reputation of these brands is cheapening with the current rapid consumer buying revolution.

Luxury, high-fashion designers can produce solely ready-to-wear, or they can be couturiers as well. Some firms use their couture collections as inspiration for ready-to-wear collections. High fashion designers may also produce commercial ready-to-wear at a lower cost in order to access different consumers.

Luxury firms differentiate themselves from the rest of the market through exclusive branding. The luxury brand is a signal to the rest of the world that the wearer is affluent and tasteful. Luxury sells a lifestyle and an ideal; consumers are willing to pay high markups in order to buy into that lifestyle.

iii. Small Fashion Start-Ups:

Fashion design icons are not created overnight; all companies have to come from somewhere. Most designers get their start designing on a team for a large firm, or they sew dresses at home for a small list of clientele. Some fashion designers are trying to

build empires while others are lifestyle entrepreneurs who do what they love at the scale they need to support themselves.

For the purpose of this study, fashion start-ups are firms which do not have enough market presence to be easily recognized by the mass market. These are companies which would not pass the “secondary meaning” requirement for intellectual property protection. Secondary meaning requires that products be easily recognizable to consumers through distinctive branding. These firms can operate out of a small number of namesake boutiques, or be carried by a small number of stores. These firms may also be available only online.

Barriers to entry are very high for fashion start-ups. Having a talent for design is not enough; a fashion start up is competing against established local brands, revered national brands, and fast fashion competition. Purchasing clothing from an unknown designer is a higher risk purchase because the client is unsure of quality and relevance, and small scale designers often charge high prices because they do not have the economies of scale for affordable mass production. Small firms and start-ups can combat these concerns with strategic marketing. Offering unique products, customer-focused services like styling tips or free alterations, and promoting a “shop-local” image help start-ups grow and become profitable.

iv. Commercial Ready-to-wear:

Commercial ready-to-wear uses less original design and does not typically market using fashion shows. This market segment offers an affordable product that is not quite bottom-of-the-barrel steals, but is more accessible than high fashion ready-to-wear. Designer diffusion lines may also be considered a part of this segment. Department store in-house brands and many chain stores qualify as commercial ready-to-wear, as well.

Commercial ready-to-wear exists across a range of quality and price. Commercial ready-to-wear brands often markup clothing at the beginning of the retail season and then slash prices increasingly over the course of the product lifecycle. This system counts on sales at the beginning of the season from first movers and early adopters, and moves remaining merchandise to early and late majority adopters at a discounted rate.

Commercial ready-to-wear is typically not as trend driven as other industry segments. Commercial ready-to-wear firms rely on trend reports or indicators from luxury firms, which sets them back in the design process. They also tend to rely on traditional product cycles. In recent years the commercial ready-to-wear industry struggled to stay competitive. The target markets for fast fashion and commercial ready-to-wear overlap quite a bit; however, not offering enhanced designs in a timely manner hurts their bottom line. Companies such as Sears and JCPenny are forced, as a result, to close locations or attempt to rebrand and offer the lowest possible prices at all time (McIntyre, Hess).

v. *Fast Fashion:*

Fast fashion is a new business model that is rapidly taking over the industry. Fast fashion firms focus on creating a large amount of inventory as quickly and cheaply as possible; products are sold at low prices with swift inventory turnover. Styles are based on the latest fads and trends, and firms rely on trend anchoring to ensure that consumers do not mind the “outright disposable” quality (Chau 1).

Fast fashion operates on a much faster product turnover cycle than traditional models, which have two to four collections per year. Instead of offering new products every three to four months, fast fashion companies offer new products every two to four

weeks. These products must be current with popular trends so the process of moving from design to store shelves is shortened significantly.

Anchoring is an important behavioral concept for understanding the success of the fast fashion industry. Trend anchoring causes “induced obsolescence” of styles and products (Raustiala, Sprigman 1719). Flooding the market with trends signals to consumers what the trends are and when to buy them; by constantly adapting, changing, and eliminating trends fast fashion firms take advantage for the positional characteristic of fashion. Anchoring relies on easily recognizable trends in silhouette, color, pattern, or style which can be duplicated across the market. For example, peplums, neon colors, skinny jeans, jumpsuits, and monochrome have all been popular in this decade.

The “youthquake” of the 1960s and 70s changed the target market for many fashion companies; suddenly young people wanted to be stylish (Blume). Young people are still the target of much of the fashion industry, especially the fast fashion industry, and they demand constantly updated and affordable clothing. Fast fashion firms offer a vast array of products with minor differentiations to tap into the desire for acceptance and “uniqueness” that young people desire. The socio-cultural changes in Western society created a perfect market scenario for fast fashion companies to flourish without ramifications for unethical cost cutting.

Fast fashion firms come under attack for a host of reasons including intellectual property infringement, labor rights violations, or consumer exploitation. Some fast fashion firms, such as Zara, cater to consumers at every socio-economic level. These firms are not producing affordable clothing in order to provide a service to the poor. In fact, many are exploiting labor and stealing design ideas in order to manipulate consumers in developed nations to buy subpar products that they do not necessarily need.

The fast fashion model requires firms to minimize costs and risks at every step of the supply chain in order to maximize profits. Constant merchandise turnover and affordable prices create the perfect environment for habitual shoppers at every income level.

The business model itself has amazing market potential to create affordable and accessible fashion. New programs at fashion schools and design incubators are surfacing to put sustainability and ethics into the fast fashion arena. Just like the fashion industry as a whole, the fast fashion market is broken down into various segments. In a sense the fast fashion segment is its own unique and diverse market. Fast fashion companies take advantage of the growing number of consumers who want to wear current fashionable styles, but do not want to pay a fortune for luxury goods. Zara, Forever 21, Walmart, and American Apparel are all classified under the fast fashion model despite their obvious differences. There are incredible opportunities for profit and innovation within the fast fashion model. Currently profits rely on unethical business practices, which may prove harmful to long run profitability.

vi. Counterfeits:

Counterfeit goods rely not only on design and creative copying, but also on trademark infringement. Counterfeit products are low-cost replicas of well-known products. In some cases counterfeit firms are upfront about the illegitimacy of their products. There are consumers who intentionally seek out convincing counterfeits to have an “It Bag” replica at a low cost. Another segment of the counterfeit industry attempts to trick uneducated consumers into believing their products are legitimate designer goods. The internet makes counterfeits harder to spot and easier to distribute. A study in the UK found that 17% of counterfeit consumers believed that the product was legitimate when

they purchased it (C. Thomas). The best counterfeit goods can convince even the most devoted brand-name shopper.

vii. Crossing Markets

Diversifying one's product offerings into multiple market segments allows designers to reach as many customers as possible and create better brand recognition and secondary meaning for their products. High end fashion designers have attempted to breach the gap between price markets by essentially knocking off themselves. These so-called "diffusion lines" offer lower price garments inspired by high fashion collections. The looks are not exact runway replicas, but they do give the average consumer a chance to own a designer label. The diffusion line is a fantastic marketing tool for fashion designers, and as long as they maintain production and ethics standards there is no reason to challenge the practice.

Diffusion lines typically rely on strategic alliances with other retailers. For example, Rachel by Rachel Roy is sold at Macys and Simply Vera by Vera Wang is sold at Kohls. These lines give department stores a piece of the luxury brand appeal and allow designers to reach new target markets; the relationship is mutually beneficial and typically very successful. Target Corporation collaborates with fashion designers every season to offer diffusion lines to the Target customer. Over the years these collections have attracted a wide spectrum of customers and introduced high fashion brands to a new market of consumers. Strategic partnerships with high fashion designers help Target to differentiate itself against competitors. Diffusion lines offer a mutually beneficial marketing scheme for all parties. Even fast fashion companies have collaborated with designers for diffusion lines, such as the wildly successful Versace line for H&M.

Diffusion lines, in theory, make pirated and knock-off goods irrelevant. However, diffusion lines are not exceptionally present on the market; at least not to extent of fast fashion chains. Also, many diffusion lines set prices only slightly lower than their typical luxury ready-to-wear line, which does not entice enough consumers to eliminate the temptation to purchase knock-offs.

Diffusion lines, also known as bridge lines, help bridge the gap between luxury and affordable clothing. Diffusion lines can create brand recognition to a lower income client which is used as an aspirational marketing technique; the customer loves their Isaac Mizrahi for Target sandals when they are a low-income college student so, when they have more disposable income later in life, they will hopefully purchase full price Isaac Mizrahi sandals.

II. Oligopoly Structure

The fashion industry traditionally works within an oligopoly structure. Firms within the industry have competitors from whom they must differentiate themselves in order to stay competitive. A few large firms control innovation in the market while smaller firms are left to follow the leader in order to stay relevant. The strategic decisions large firms make can best be modeled through basic game theory (Pepall, Richards, and Norman 224). The fashion market is currently split into extremes as a result of industry changes. Michael Burke, the CEO of Fendi, explains that “The market has become more polarized: either it’s entry price or true luxury....The middle has hollowed out. You either have to be resolutely upscale, or you’re battling it out on prices” (Socha, “Defining Luxury” 1). Currently, the oligopoly structure of leaders and followers controls the design aspects of the industry. The majority of the fast fashion industry makes up the

competitive fringe which works in a perfectly competitive structure; firms are price takers and offer homogenous trend-based products. Recently, a small number of fast fashion firms began moving towards market leader positions in the industry.

The two branches of game theory—non-cooperative and cooperative—should both be taken into consideration when examining the makeup of the fashion industry. Non-cooperative game theory looks at strategic decisions made by individual firms; cooperative game theory looks at decisions made by a group of firms working together in a coalition. Cooperative game theory must be considered in the overall industrial organization of the industry because brand groups are a prevalent form of ownership, and industry trend forecasting dictates many product decisions for companies. However the industry is not entirely controlled by brand groups and coalitions. For example, Anna Sui—although she does not belong to a brand group—influences the fashion industry each season with innovative textile designs which are knocked-off by fast fashion firms (Wong 1140). The tiered nature of the industry raises interesting questions in terms of structure, cooperation, and innovation.

Brand groups control large segments of the luxury and commercial ready-to-wear business, as well as some fast fashion corporations. LVMH, Hermes International, VF Corp, Inditex, and Iconix are just a few brand groups with large market shares. These brand groups own majority stake in a number of firms, sometimes entirely focused in the fashion industry and other times branching out to other luxury industries such as wine and spirits or cosmetics. In a sense, a brand group is a conglomerate; as such, each brand must act to better the entire value of the brand group, even when firms with the same target market are included in the group. For example, LVMH's portfolio of brands includes Céline, Givenchy, Donna Karen, Marc Jacobs, and Emilio Pucci; each of these

designers are known for luxury ready-to-wear catering to wealthy and stylish adults. Being part of a brand group gives firms more security each season; the performance of the company as a whole determines more than individual brand profits. Many brand groups offer incentives such as minimum profit payouts; brand groups may also take on the responsibility of many aspects in the marketing mix such as logistics and promotion.

In addition to brand groups, many firms subscribe to trend reports or hire third-party trend-scouting firms to consult on colors, prints, and silhouettes for the coming season. Consumer buying behavior relies on trend anchoring; consumers are trained to buy what is “in style” through firms inundating the market with obvious trends. Consumers adopt trends based on a typical rate of adoption pattern: innovators, early adopters, early majority, late majority, and laggards or non-adopters. This process happens significantly faster in the fashion industry than in other industries, given the nature of how firms interact. Trend reports help retailers and designers “predict” the market saturating trends for the next season.

The fashion industry uses a leader and follower structure in terms of product development. Luxury designers and couturiers set the tone for the coming season in their fashion shows, the trends that stand out to editors and trend scouters are copied and implemented by commercial ready-to-wear firms, fast fashion companies, and counterfeiters. Advances in technology allow this process to happen almost simultaneously. A fast fashion manufacturer can view photos from the red carpet or a runway show and reproduce those looks in a matter of weeks. In some cases the fast fashion retailer can provide knockoff products on store shelves before the original designer. In this case the strategic decisions are non-cooperative; it is merely a result of

the trickle down nature of oligopolies. The cooperative, cartel-like strategies guide fast fashion firms who rely on trend anchoring and rapid turnover.

In the fashion industry, research and development on the design end of the production process creates more consumer value for a product rather than lowering production costs. The leader-follower model has existed in the fashion industry for generations. Parisian couturiers created the most desired clothing on the planet, and other designers and department stores copied those ideas and styles for their own collections. At this point fashion was not the multi-billion dollar industry that it is today, nor was the world as connected and globalized. During the 19th century, if an American woman wanted the latest French fashion she would have to go to France to buy it, go to the local department store selling replicas of those same French looks, or create her own using pattern replicas distributed in fashion magazines (Blume). In fact, it was not until World War II and the Nazi occupation of Paris that American designers had to start creating their own fashions. The trade block against France made getting fashion news impossible so Eleanor Lambert—future founder of the Council of Fashion Designers of America—created a campaign to put American fashion designers in the spotlight (Blume).

Firms in the fashion industry can choose to be leaders or followers depending on their businesses model and target market. Leaders typically operate for a smaller target market and at a higher price point; these firms create trends instead of following them. Traditionally couturiers were the market leaders, but now red carpet designers and Fashion Week headliners can also be innovative first movers. A majority of firms in the fashion industry rely on follower business models; copying or reinterpreting leader trends allows for higher sales security and lowers the cost of production by cutting out high innovation costs.

Although there are seemingly endless brands, designers, and stores the fashion industry is not perfectly competitive, nor is it monopolistically competitive. There are high barriers to entry in the fashion industry. Economies of scale and product differentiation are both required to enter the market and be successful. Firms must be able to produce volumes appropriate for their target market. All market levels require economies of scale in order to contract with manufacturers, build a client base, or sell product to third-party retailers such as boutiques or department stores. The second main barrier to entry, product differentiation, remains a barrier to entry for independent designers and luxury firms; however, in the absence of intellectual property laws, fast fashion firms are able to eliminate this barrier to entry.

Brands and designers differentiate themselves at every stage of the marketing process. From design to production, the sales each firm attempts create a unique experience in order to gain customers from competitors. Products range in style, size, presentation, and price. Every garment may seem to have the same function—to cover the body—but consumer preference to be “in-style” drives sales. A small shift in consumer tastes can dramatically shift demand for a given brand, which is why strategic decision making and pay-off maximization models are of the utmost importance for fashion designers and firms.

Each level of the fashion industry uses diverse means to differentiate themselves and create a high consumer value—whether that is a monetary or non-monetary value depends on the brand. Every industry segment is connected, even in cases where there is no target market overlap. The top of the pyramid feels pressure from the bottom of the pyramid, just as the bottom of the pyramid feels pressure to recreate every trend innovative market leaders produce. In order to illustrate the interconnected nature of the

industry two strategic decision models are used. The first model shows how fast fashion affects the overall business model of high end firms. The second model shows how fast fashion firms must react to both luxury trends and consumer feedback to stay relevant and maximize profit.

i. *Jean Paul Gaultier Model*

Brand positioning is essential for fashion corporations. Recently, Paris fashion giant and couturier Jean Paul Gaultier decided to refocus his company in order to maximize profits as well as personal utility (McCarthy 1). His announcement came as a shock to much of the fashion community because he chose a dissimilar route than many of his competitors.

Gaultier's current business model is diversified between three industries: haute couture, luxury ready-to-wear, and perfumes. The business is valued at an estimated \$38.9 million by *Women's Wear Daily*, an important industry trade magazine (Socha 1). The most profitable of the three branches of his corporation is perfumes, which brings in about fifty percent of the consolidated revenues and represents about eighty percent of the business (Socha 1). Ready-to-wear is also a profitable portion of the business. However, cutthroat competition from other luxury designers as well as the growing fast fashion market creates immense stress and great challenges. For the purpose of this model, ready-to-wear revenues are estimated at \$12.45 million. Couture is not typically profitable for fashion corporations as there are remarkably few customers in their target market; haute couture functions as a marketing tool in the current industry (Langley). Yet, the last few remaining couturiers take great pleasure from creating wearable art,

Gaultier included; the fact that Gaultier is able to break even on his couture collections is also important to note (Socha 1). Couture revenues are estimated at 7 million dollars.¹

Gaultier's path through the industry is atypical in many manners. Although Gaultier began his independent career as a ready-to-wear designer, his clothes always pushed the boundaries between high fashion couture and street fashion. Gaultier fashion is considered "[influential to] all levels of the fashion market" (Polan, Tredre 201). Gaultier produces his couture and leather goods in house, and outsources production of ready-to-wear to a small plant in Italy. He also licenses his name for small luxury goods, including perfume.

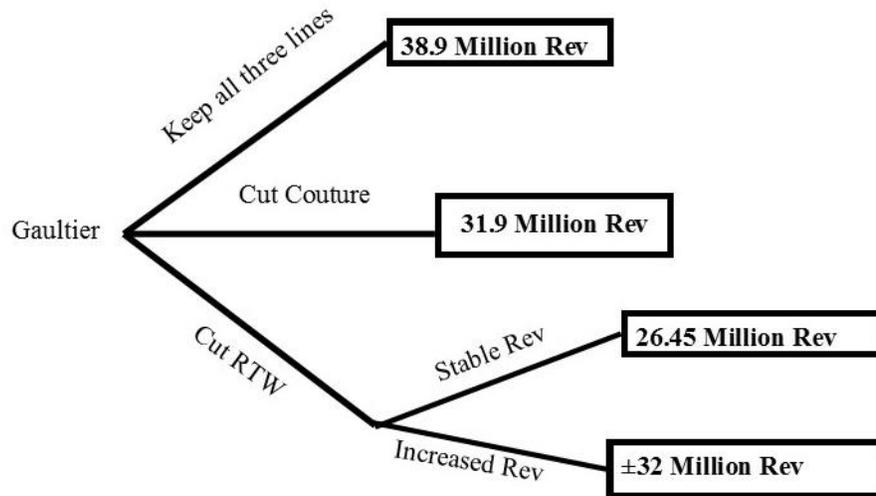
The Gaultier brand was partially owned by the prestigious brand group Hermes until a 2011 sale to Puig. Although Hermes' share was only about thirty-five percent there was still great controversy when the group was bought out by a Spanish firm, Puig, with a focus on perfume. In 2011, Puig purchased an even larger share than Hermes originally owned, and they intend to purchase more given the changes in business structure (Socha 1). Given the focus of Gaultier's new brand group one can assume that perfume will be an even larger segment of the business; the strong perfume sales from Gaultier's previous license was what originally attracted Puig to the investment.

The basic game theory model sets up choices based on the prevalent external and internal factors and rates them based on potential payoffs. First, given the recent share acquisition, one can assume that perfume shares will continue to stay strong or increase. Also, one can assume that cutting one portion of the business will allow for more investment and therefore profit to the other segments. Given the state of the industry

¹ Estimates divide remaining 50% of revenues based on industry trends with ready-to-wear being more profitable than couture, but couture bringing in significant revenue due to the reputation and demand for Gaultier couture.

Gaultier had three options to keep his business relevant, profitable, and personally rewarding.

Figure 1.2: Gaultier Pay-Off Maximization



Option one: keep all three lines. Keeping all three lines, essentially doing nothing, is considered the worst option because Gaultier cannot keep up with the increasing pressures of the industry. Although Gaultier could employ a team of designers to take on designing the ready-to-wear collections in his name, this is not an option that appeals to Jean Paul. While there is still currently demand for Gaultier's ready-to-wear collection, and the company is still profitable, in the long run Gaultier does not feel he can keep up with demand and the company will suffer as a result.

Option two: cut couture line. Cutting out couture lines is becoming more and more common in the fashion industry. Couture is not profitable in most cases, and the craftsmanship and dedication required to create couture are becoming a thing of the past (Langley 1). As consumer value on couture collections fall more and more, firms are turning away from the art form. For Gaultier couture is his passion, but it is a very costly passion to have. From a financial standpoint cutting couture may be the best available

option, but it may not maximize Gaultier's individual utility. Gaultier is a rare example of a couturier that breaks even on his couture collections (Socha 1).

Option three: cut ready-to-wear collections. Luxury ready-to-wear, *prêt-a-porter*, collections have stolen the focus of couture designers since the industrial revolution. The birth of mass production changed the way the fashion industry works. The apparel industry is experiencing another change with the invention of the fast fashion concept. For couture designers, like Gaultier, the prêt-a-porter industry is losing its appeal because the industry is over saturated and the emphasis on fashion as art continues to decline. By cutting the ready-to-wear lines Gaultier faces two outcomes; either revenues stay the same with the remaining lines and the risk of ready-to-wear causing losses is eliminated, or revenues increase due to new business ventures and reallocation of assets to market perfume and couture collections. Cutting out the ready-to-wear lines is, therefore, the optimal choice for Gaultier because, if expected properly, it allows the designer to gain the most personal utility and the brand to stay at roughly its current revenue level.

Gaultier did, in fact, choose to eliminate men's and women's ready-to-wear collections from his seasonal repertoire. Based on the changing market for ready-to-wear and the excellent performance of his fragrance company this was the optimal choice to maximize pay-offs for Gaultier. Gaultier announced his intentions to pursue a number of collaborations in different luxury industries, such as interior design, and continue his perfume and couture collections (Socha). The decision raises an interesting concern in the fashion industry: is fast fashion making luxury ready-to-wear irrelevant? More importantly: what does this mean for the future of fashion? Will fast fashion be, like its name suggests, a passing phase in consumer culture?

Articles regarding the end of the Gaultier's ready-to-wear line read like a eulogy for the designer himself. *The New York Times* feature "Jean Paul Gaultier: Words to Remember Him By" offers dozens of quotes about the designer's style and personality in a manner that mirrors celebrity death stories (Schneier, Koblin 1). Gaultier is not dead, nor has he shut down his business; he has merely stopped developing one segment of his business. In fact, he has illuminated a line that critics started to find dated and irrelevant (Friedman, E1). Gaultier's talents lie in in beauty and couture, but his choice to end his traditional ready-to-wear business still baffles the industry because it highlights the changes in the fashion industry.

It is unfortunate to imagine there is no longer a place for creative minds like Gaultier in an industry that was once based in fantasy and art. Perhaps the death of Gaultier's ready-to-wear collections foreshadows the slow death of the industry as it once was. Perhaps fashion is becoming a purely "useful good" and copyright will be irrelevant in ten years when the purely competitive nature of fast fashion has engulfed the industry.

The change in business models by Gaultier is an important example to illustrate the effect that two very different industry segments can have on each other within the broader scope of the fashion industry. Although the price difference between a Gaultier and a Forever 21 dress are a few hundred dollars there is still pressure from indirect competitors. Competitive advantage in this industry is about more than price; the fast fashion industry makes speed and availability an advantage. Fast fashion presents in-style products, but at a lower price and a more accessible location. Sophisticated e-commerce and strategically located brick and mortar locations allow fast fashion firms to compete with luxury brands despite their reputations. The fast fashion model allows firms to surpass the design-based barriers to entry. Additionally, the nature of rapid product

turnover and low production costs allows fast fashion firms to reduce or eliminate barriers on the production side.

ii. *Zara Model*

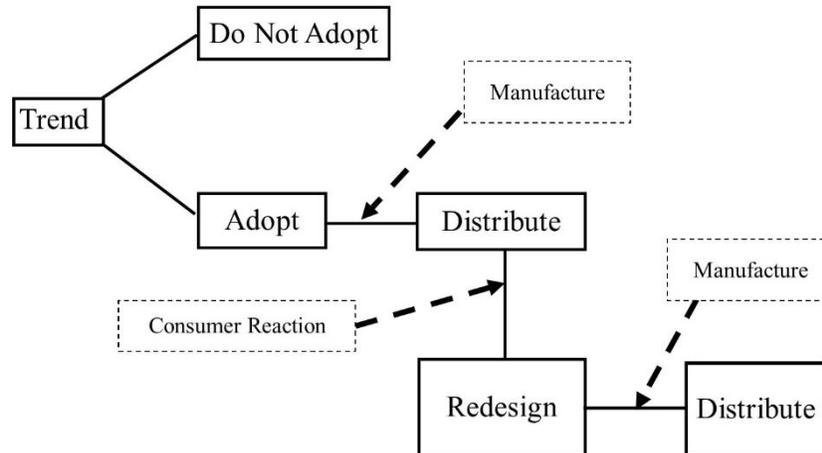
The Zara business model is a remarkably innovative and ingenious model of production, distribution, and brand positioning. Zara is relatively more expensive and higher quality than other fast fashion firms. The brand appeals to American consumers because of its European heritage and aesthetic, but also its affordable price. Zara stores have the same look and feel as a luxury department store or boutique.

Inditex is the parent company of Zara; the brand group controls seven other brands, but Zara is its largest brand with the most global awareness. The main strength of the Zara brand is its innovative global supply chain. Using regional supply chains allows the firm to cut logistics costs. Outsourcing allows for cheaper labor, but rising oil prices and logistical fees make a global supply chain even more complicated. Limiting the volume and distance traveled for shipments saves time and money. Localized production facilities also allow for shorter lead times, smaller but more frequent orders, and greater control. Zara prides itself on the fact that its supply chain does not end when the product hits store shelves. Employees are trained to report consumer feedback to the corporate office. If customers want the top selling little black dress in red, then the company will produce the dress in red within a matter of weeks.

The fast fashion model relies on quick and effective reactions to forces outside the company. These forces can be consumer demand, industry changes, new design innovations from other firms, and supply chain constraints. For every new trend Zara must decide whether or not to react and create its own adaptation. These adaptations are referred to as “enhanced designs” (Cachon, Swinney 1). Enhanced designs are,

essentially, direct copies or appropriations of luxury designs. The fast fashion model would not be as profitable if firms relied on creative design teams. Enhanced design allows fast fashion firms to eliminate or minimize research and development costs and piggyback off of successful luxury trends.

Figure 1.3: Zara “Enhance Design” Strategy



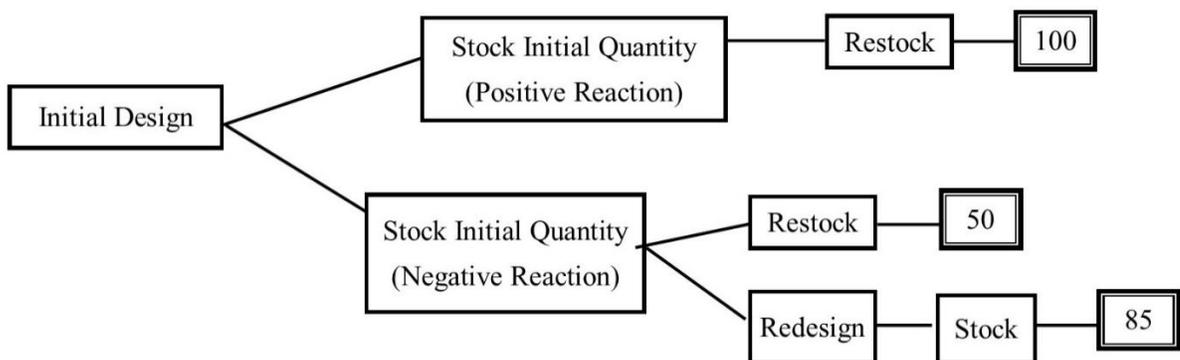
Using enhanced design and rapid production gives Zara an upper hand over traditional firms. For example, Zara holds back fifty percent of raw materials during the first manufacturing run so they can quickly call suppliers to make changes in color or details if consumers have valuable feedback on the style (Cline 98). The Zara model is pure game theory; decision-makers must strategically react to internal and external forces in order to maximize payoffs and steal away customers from other firms (Figure 1.3). Fast fashion not only has to adopt a trend, but it has to adopt it better than all its competitors. Those competitors can be at any market level and price point.

The Zara model allows for even greater control than most fast fashion supply chains. If the firm incorrectly predicts the success of a specific trend they are only out the sunk cost of the first run of manufacturing. Producing a limited amount allows for less product loss; Zara’s unsold inventory only accounts for about 10% of total merchandise,

which is half of the industry average (Cline 99). Moreover, Zara tracks its inventory and consumer feedback loop very closely; if an item is not moving in Chicago but it is selling out in Madrid they can transfer the product. The store is not the final destination for Zara; unpopular styles do not simply end up on a clearance rack forever. In fact, the sale sections in Zara stores are remarkably small compared to stores like H&M or the Gap.

The feedback loop allows Zara to use strategic decision making models to optimize raw materials and production resources. Figure 1.4 demonstrates how this process affects sales based on a scale of one to one hundred where one hundred represents sale of all inventory.

Figure 1.4: Strategic Decisions (Daily Feedback)



The Zara model allows the company to maximize profits for every item they stock. The initial design utilizes the predicted trends. If there is a positive reaction to the design, then the firm will restock using the rest of the raw materials they saved from the initial production run; the firm knows that consumers want the product so they will be able to make the maximum amount of profits. If there is negative consumer feedback regarding the design—consumers do not like the pocket placement, the buttons, the color, etc.—then the firm has two choices: restock the same design or redesign. Most firms produce full production batches and then discount in order to get rid of unpopular

products. The Zara model attempts to limit discounts by redesigning the product midseason to fit customer demand. Therefore, by redesigning the customer gets exactly what they want and the firm maximizes profits. The model used shows that when firms restock they lose approximately half the profit potential due to unsold or discounted inventory. If the firm redesigns they lose approximately five percent due to the cost of redesigning and approximately ten percent due to unsold or discounted inventory.²

The main point to be taken from both the Zara and Gaultier strategic decision models is that firms in the fashion industry face numerous strategic decisions which they can utilize to maximize profits and differentiate themselves. Innovative design, price, accessibility, enhanced design, and strategic supply chains allow firms to create a competitive advantage. In an oligopoly structure firms are able to compete in more than just price; the means for competition depend on what consumers' value. Using innovative and responsible—not exploitative—supply chains is a tool brands can use to differentiate themselves and create more consumer value for their products. Responsible supply chains have the potential to be a compelling and valuable marketing tool. That being said, firms do not have to behave ethically; there is very little external pressure—especially in the United States—for firms to change behavior. Pressure in Europe is stronger for firms to behave ethically. European fast fashion firms, like Zara and H&M, are attempting to use social responsibility as a marketing tool.

III. Success of the Competitive Fringe: Fast Fashion Model

Fast fashion is a relatively new business model in the fashion industry. The industrial revolution made ready-to-wear clothing a possibility and caused prices to fall.

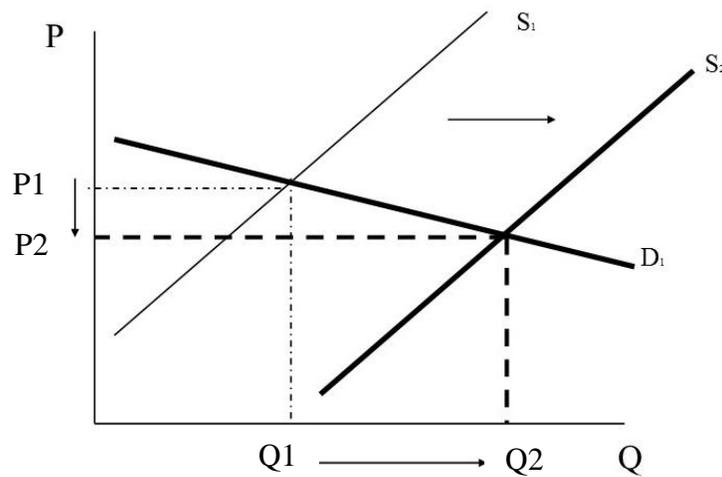
² Based on the statistics provided in Elizabeth Cline's study (Cline, 99)

It is commonly thought that garment production is a sign of industrialization and economic development for a developing nation. However, in the past twenty to thirty years a “race to the bottom” changed the garment industry. Utilizing abundant and affordable labor in developing nations allows firms to increase production speed and volume. Increased supply caused a rise in quantity demanded for cheaper clothing in the latest styles and trends (Figure 1.5).

The fast fashion business model seems a natural fit for the changing consumer values. With a highly elastic demand and a higher value on quantity than quality, firms such as Forever 21 or Topshop have dramatically increased supply which causes prices in the fast fashion industry to decline (Figure 1.5). In 1960, the average American consumer purchased twenty-five garments per year; today’s American consumer purchases closer to seventy garments per year (Vatz). Given the increase in population America requires five times the garments as it did in the 1960s in order to meet demand; Americans consume approximately 21.4 billion garments per year (Vatz). The “race to the bottom” allowed firms to decrease input costs and increase supply. The increase in supply resulted in a higher quantity demanded; the average American consumer could afford more clothing and jumped at the opportunity.

Fast fashion, as its own entity, began as a purely competitive market. The fast fashion industry offers fairly homogeneous low to mid-range quality items which are based on trends or are copies of high fashion designs. Fast fashion firms meet the demand of consumers with bargain prices and hundreds of new product offerings each week. As more firms entered the market and supply increased, prices continued to fall and quantity demanded continued to increase, see Figure 1.5.

Figure 1.5: Fast Fashion Supply and Demand Model



Fast fashion drives prices down at an ever increasing rate. It is hard to believe that a shirt can be priced under two dollars and still have a profit margin, yet Forever 21 proudly markets them (Merrick 1). Offering trend-based, exceptionally cheap products which quickly fall apart or become obsolete drives up quantity demanded and pushes price downwards.

Within the broader context of the fashion industry, fast fashion still fits into the oligopoly structure. Fast fashion was, by definition, the competitive fringe of the oligopoly; however, in this case the fringe is growing into an economic leader. Fast fashion and luxury fashion decisions affect the overall industry, and profit leaders and followers are present at every level. In the Stackelberg leader and follower market, fast fashion is a follower in terms of innovation and research and development. That being said, the collusive nature of product delivery in the fast fashion market allows firms to make a large economic impact.

Fast fashion firms now defy the traditional Stackelberg competition model for production quantity, because they are able to freely copy popular designs and utilize the

lowest cost means of production. Stackelberg's model relies on sequential quantity selection. The first mover produces at the optimal quantity to cover research and development expenditures. The follower then observes the market and produces the optimal quantity for the market at the market-clearing price. Stackelberg's theories typically find that the leader firm is more profitable; however, in industries where consumer tastes are a moving target, such as the fashion industry, this may not be the case (Webster 154). Product innovation occurs quickly in the fashion industry, which makes long-term supplier contracts impractical and takes away a large amount of the first-mover's advantage. Fast fashion companies produce at small but frequent quantities using trend based designs; the limited quantity and lower prices allows these firms to eliminate excess inventory and reduce losses that first movers may have. A fast fashion company can gauge consumer reactions to fashion shows and editorial collection previews and recreate the most desirable trends. Stocking knock-off products in stores before the original design reaches stores allows fast fashion firms to lead in sales. The limited nature of intellectual property rights in the fashion industry increase the profitability of fast fashion firms; direct copying whole garments is legal and an effective way to make money. The resulting structure follows the Kopel and Löffler model which expands the Stackelberg model to show how followers are more profitable than leaders (Kopel and Löffler 147).

All fast fashion firms are part of the competitive fringe; however, improvements in logistics and product turnover make the model economically viable enough to take over the industry as a profit leader. The largest of fast fashion firms, such as Inditex and H&M, are transitioning into the traditional oligopoly structure, given their new strategies towards ethical production and designer collaboration. Using unique marketing

campaigns and strategic production allows large fast fashion corporations to compete with the traditional fashion industry firms. The effects of this transition are only recently being understood. Although the target market of Forever 21 and Yves Saint Laurent only rarely overlap, there is no doubt the fast fashion industry is pushing the rest of the fashion industry in a new direction. Overall, the small fast fashion firms, which do not have as large of a global presence, continue to make up the market fringe. Smaller firms, such as rue21, Charlotte Russe, and Deb, have a market presence but are not powerful enough to influence profits in other market segments; they do, however, increase the presence of anchored trends, which helps to perpetuate the never-ending trend cycle which fast fashion feeds on. The fast fashion market is both direct and indirect competition for the overall apparel industry.

Despite growing recognition for the unrealistically cheap prices in fast fashion stores, the market currently welcomes fast fashion despite its flaws. Some consumers ask how such low prices are possible, and the media occasionally criticizes these companies. Nonetheless, there is no strong demand for change. Fast fashion CEOs earn millions or even billions of dollars while workers producing their products fear going to work. The owner of Zara, Amancio Ortega, is the third richest man in the world with an estimated personal worth of 46.6 billion dollars (Sowray 1). Originally his business model required all clothes to be produced in Spain, which revived the struggling economy where he grew up. However, global expansion and fast product turnover led the company to contracting production to other firms. While Ortega lives lavishly with billions of dollars of net worth, workers producing his clothing are dying in factory collapses and fires (Lahari, Passariello 1). Fast fashion firms minimize costs in order to sell large volumes of clothing at a minimal mark-up; this strategy allows firms to gross enormous profits at the expense

of quality, design integrity, and worker well-being. However, without the strategic combination of design piracy and low-production cost the fast fashion industry would not be transitioning from competitive fringe to profit giant.

The question becomes: will fast fashion be a quick market trend? There is some evidence that consumers may be tiring of constantly shelling out money to replace items which wear out quickly. A study in the *Wall Street Journal* found that consumers are coming around to the idea of spending more money on less clothing in order to gain a level of quality (Holmes). Conversely, there are contradictory studies that find that educated consumers want to purchase higher quality and ethical products, but do not actually follow through with those desires (Carrington, Neville, Whitwell 139). While some consumers may be interested in ethical consumption and supply chain transparency, the typical fast fashion consumer is a part of a generation which values price and style over quality and ethicality. Generational characteristics support the idea that fast fashion is sustainable.

Fast fashion, from a profit maximization perspective, is a phenomenal business model, given the demand of millennial generation consumers. There was a hole in the market for fashionable and affordable clothing. The fast fashion industry found ways to cut costs of production without giving up style. The millennial generation thrives on social media and self-expression, and a large part of that is fashion. Young people do not typically have a lot of disposable income; the latest recession made it difficult for high school and college students to find part time work and the effects still linger. Underemployment in the United States is estimated at 17.2%; much of that is part-time workers who want to be working full time (Cox). Student loan debt is rising and college admissions are becoming more and more competitive; since the recession student loan

debt has increased by 82% (B. Ellis). America’s youth want more than they can afford. Fast fashion helps to fulfill those desires despite the limited resources of consumers.

The millennial generation presents an interesting challenge for retailers in every industry, but the fashion industry in particular has an opportunity to embrace this generation’s unique consumption habits. A number of research groups attempt to understand what makes millennials tick, or rather, what makes millennials buy. For instance, a survey by the Pew Research Center, a nonpartisan research group, asked each generation what defines them (Pew Research Center 5). The results are mostly what one would expect when considering the events and changes of the last one hundred years.

Figure 1.6: Generational Characteristics

What Makes Your Generation Unique?			
<u>Millennial</u>	<u>Gen X</u>	<u>Boomer</u>	<u>Silent</u>
1. Technology use (24%)	Technology use (12%)	Work ethic (17%)	WW II, Depression (14%)
2. Music/Pop culture (11%)	Work ethic (11%)	Respectful (14%)	Smarter (13%)
3. Liberal/tolerant (7%)	Conservative/Trad'l (7%)	Values/Morals (8%)	Honest (12%)
4. Smarter (6%)	Smarter (6%)	“Baby Boomers” (6%)	Work ethic (10%)
5. Clothes (5%)	Respectful (5%)	Smarter (5%)	Values/Morals (10%)

Note: Based on respondents who said their generation was unique/distinct. Items represent individual, open-ended responses. Top five responses are shown for each age group. Sample sizes for sub-groups are as follows: Millennials, n=527; Gen X, n=173; Boomers, n=283; Silent, n=205.

Source: Pew Research Center 5

The trends among each generation, as well as the overlapping characteristics, are interesting on their own. The silent generation was the last to consider values and morals an important facet of their generational makeup. The millennial category provides an important look into the consumer mind of the millennial, specifically their technological prowess and the importance of unique clothing. This generation defines themselves by how they dress; market research studies find that self-expression is very important to this generation (Nielsen 5). They are the “Keeping up with the Kardashians” generation and that means their demand for clothing is constantly changing and growing. Where they

buy their clothes from is not necessarily important; the anonymity of online shopping allows them to purchase lower end clothing without anyone knowing. Studies find that millennials, although they have significant purchasing power, are less likely to make purchases when browsing in a brick and mortar store (Lewis).

The success of the fast fashion industry is largely a result of changes in consumer behavior and tastes in the last few decades. Fast fashion is flourishing around the world because the majority of consumers have an elastic demand for clothing (Gibson, Stanes 174). Using statistics from the last fifty years the elastic nature of demand is very clear; in the 1960s the average person purchased fewer than 25 garments per year—that number nearly tripled by 2010 (Vatz 1). In the 1960s, Americans spent twice as much for a third of the quantity (Vatz 1). Using these figures and adjusting for inflation result in a price elasticity of $|-3.19|$, meaning that clothing is elastic for American consumers. The steady shift from domestic to foreign garment production corresponds directly with the amount spent on clothing and the quantity purchased (Vatz 1). Consumers have changed congruently with business models in the fashion industry.

The fast fashion model has effectively modified consumer expectations for clothing. Essentially consumers are constantly demanding new styles and products. As a result the demand for specific products is always either rising dramatically, or tapering off. Fast fashion firms rarely use traditional advertising such as television, print, or radio ads. Instead, firms rely on social media and consumer word of mouth. There are over one million Youtube videos dedicated to “fashion hauls” which feature dozens of items purchased from fast fashion companies, exclaiming about great deals or explaining the newest trends. Trends saturate the market from every angle, and social media stars push consumers to buy more and more to stay on trend.

Companies with fast fashion business models rely on a “get it before it’s gone” structure of sales. Instead of marking up prices and dropping them with 50-80% clearance discounts, which is a common technique for commercial retail stores like JC Penny or Kohls, fast fashion companies use a smaller markup but only keep products in stores for a limited time and at a limited quantity. This structure makes consumers believe that if they do not purchase immediately the item will no longer be available; it also keeps shoppers coming back to the store in order to check for new styles. The promise of new styles keeps consumers returning to stores; the unbelievably low prices make them buy. Fast fashion firms use over fifty “micro-seasons” to entice consumers to return to the store frequently; these “micro-seasons” effectively change the product offering in the store and make consumers feel as if they are missing out on the current trends (Whitehead). This model makes consumers purchase in the early adopter or early majority stage of the product adoption cycle. Consumers realize that fashion is becoming “dated” more rapidly and they understand that if they wait a week the item they like may not be available. This understanding eliminates the need for large sale sections and steep discounts to move leftover merchandise.

When the fast fashion model was relatively new Gerard Cachon and Robert Swinney of Wharton and Stanford analyzed the industry for market viability. They concluded that the combination of “enhanced design” and “short lead-times” works favorably in the fashion industry (Cachon, Swinney 30). In other words, they believe that the fast fashion industry, which uses trend-based designs and a sped up supply chain, is optimal for fashion companies to make profits. From a profit perspective they are correct; earnings reports and estimates show that fast fashion companies are turning millions and billions of dollars in profits while luxury companies and couturiers look on in envy.

Forever 21 grossed approximately four billion dollars in revenue last year (Chang). Inditex grossed over sixteen billion dollars in sales with net profits around three billion. Michael Kors is one of the largest public luxury brands, yet their net income came to only 661 million last year (Kors). Maria Pinto, Betsey Johnson, Lilly Allen, Nicole Farhi, and Ashely Stewart all filed for bankruptcy in the last three years. There is no doubt that the fast fashion business model is economically viable, but is it the best model for consumer utility and ethical business standards? The study failed to consider the ethics behind the fast fashion supply chain and the social cost of enhanced design and rapid production.

Fast is not always better. Think of the fast food industry for a moment. Fast food is affordable and easy to find. It satisfies hunger and contains salt and fat to make it taste good enough to keep customers coming back. Fast food companies use deals like Dollar Menus or buy one, get one free sales to lure in customers; customers buy more than they may need because it is cheap. Additionally, fast food companies take criticism for using lower quality ingredients in order to cut production costs. Now consider fast fashion: affordable, easy to find on the internet or in brick and mortar stores, covers the body, and looks good enough to satisfy trends. The same price scheme is used; fast fashion companies use deals and low profit margins to entice consumers to buy large quantities. Fast fashion firms also cut corners on production costs by using thinner fabrics, low quality raw materials, and unskilled laborers.

Fast fashion and fast food companies both understand the negative stereotypes associated with their products; instead of changing their practices they offer new lines of products which defy those stereotypes. H&M, for example, carries a line of socially and environmentally conscious clothing. This does not mean that H&M is a socially responsible business, they have merely, metaphorically speaking, added a salad to the

menu to get critics off their backs. The fact that only one line of clothing in their store is labeled socially responsible should be a red flag to consumers that the rest of the products use unethical practices. To the average customer, this may seem like one small step in the right direction, but in actuality it is a marketing tool that allows these companies to continue cutting corners in other aspects of their product mix.

Just as fast food companies saw an opportunity to make billions in low quality, low cost, but accessible foods, fashion companies found a way to make money off low cost and low quality materials, and abundant labor. Educating consumers about what they put on their bodies is as important as what they put in their bodies. What a person eats has a direct effect on their health, but what they wear can have a direct effect on someone else's health. If consumers pay a few extra dollars for organic or locally grown food because they know it is better for them, then who is to say that they will not pay more for clothing that is better for the world? At the end of the day, responsibly sourcing clothing will not take thousands of dollars on the part of the consumer. The current estimate is less than ten cents per garment to make factories safe from fire or building collapse; that means—given the average American spend \$1700 on 68 garments per year (AAFA)—shoppers would pay \$6.80 extra on responsible manufacturing (Foxvog, Nova).

The fact that companies, like H&M, are adding socially and environmentally responsible products shows that there is some pressure or perceived value for consumers. A firm that is successful offering a range of products that minimizes costs by exploiting labor and stealing designs would not cut profit margins if there was not a greater marketing potential. These shifts toward supply chain transparency and ethics comes primarily from European-based fast fashion firms, however. American firms, such as Forever 21, put profit first; lowest prices, lowest quality, highest quantity are still the

main tactics for their business model. The attempts made by some fast fashion firms to rectify their ethical mishaps are still fairly shallow and do not necessarily indicate a long term trend.

It is important to note that not all fast fashion firms practice unethical and exploitative cost cutting. American Apparel is an important exception. American Apparel's profits are significantly lower than those of H&M or Inditex; it is difficult to ascertain why American Apparel is less successful, however. The CEO of American Apparel is known for controversial statements in the media, sexual harassment lawsuits, and discrimination charges. A negative reputation may harm the company's image more than ethical production helps. American Apparel is an ethical outlier in the overall fast fashion industry. The largest and most profitable of fast fashion firms use unethical methods, which is why the issue must be addressed.

Fast fashion firms cut costs in two main ways: design and manufacturing. Limited research and development expenditures by copying or appropriating successful trends limits human capital expenses and raw material costs during the prototyping stage of design. Contracting to manufacturers who use low cost raw materials, pay low wages, and do not make capital and safety investments allow fast fashion firms to cut costs as well. Cutting costs in the supply chain paired with rapid demand leads to maximum profits, especially when the value of ethics is not part of the equation. The future of fast fashion relies on the ability to cut costs using unethical practices; the following chapters illustrate the importance of design piracy and labor exploitation for the bottom lines of fast fashion firms. Firms cut costs significantly using unethical and exploitative practices; cost cutting allow these firms to be profitable and become formidable industry competitors.

Chapter Two: Intellectual Property

Design piracy is highly prevalent in the fashion industry. Opinion leaders within the industry agree that directly knocking off designs is an unethical business practice. In the 20th century, stores and guilds blackballed designers found guilty of copying (Wong 1188). Modern industry activists and foundations lobby Congress for administrative law to protect whole fashion designs. Design piracy affects many industry segments; it allows firms to profit off the ideas of others. Fast fashion firms copy designs directly and at a lower price point; this practice gives them a competitive advantage, but at the cost of business integrity and long term innovation. Lack of domestic and international legal protection against design piracy protects fast fashion firms. Design piracy is legal, but it is still an unethical practice that threatens the current industry model and may have a long- term negative effect on innovation and research and development expenditures across every market segment.

I. Intellectual Property Overview: Settlements v. Trials

Understanding the principles of each type of protection as well as the general economic benefits of intellectual property is important for this study. The goal of intellectual property protection is to encourage innovation by offering protection for the creator. There are four types of intellectual property protection in the United States: trademark, patent, copyright, and trade secret. Each type of intellectual property right offers protection for a different type of product or idea. Different forms are relevant for different industries, and some industries are only offered limited protection. Trademark, copyright, patent, and trade secret protection allow individuals and firms to protect their ideas in order to reap the economic benefits of risk taking.

Generally speaking, trademarks protect a brand's distinguishing marks, logos, slogans, or other distinctive branding symbols. Copyright is typically used for creative industries such as publishing or music; copyright allows the creator to safeguard their work from duplication for an allotted time. Patents come in two forms, design or utility. Design patents protect unique aesthetic features of useful items where utility patents protect innovative useful products. The final form, trade secrets, offers a firm protection against corporate espionage. Formulas, manufacturing process, or recipes all constitute trade secrets as they cannot be formally protected under intellectual property law, but they are essential for a company's success.

This chapter focuses on intellectual property in the fashion industry. In this context, the term "fashion industry" encompasses clothing and accessories—jewelry, scarves, handbags, etc.—at all price points and quality. Textiles are considered a part of the fashion industry for the purpose of this chapter, and are briefly mentioned as textile design is a key piece of overall design; however, in depth examination of textile design and manufacturing is a topic for further research. It is important to establish that the apparel industry is included under the overall fashion umbrella; in this chapter, the term will be used in order to differentiate protection available to different sectors of the fashion industry, as not all products are treated equally under intellectual property law.

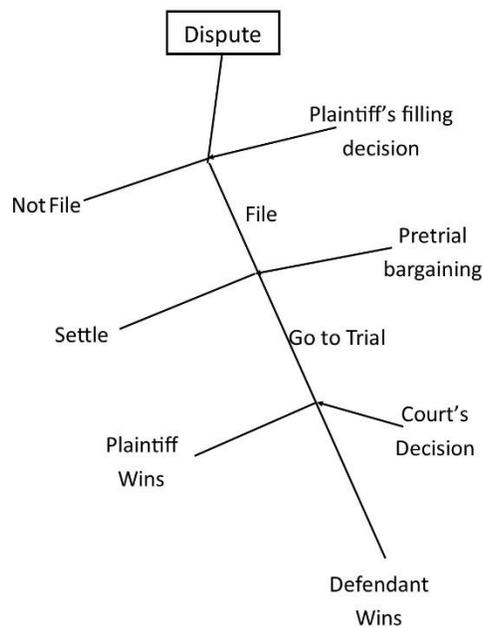
The purpose of this chapter is to examine the scope of intellectual property rights for fashion designs in the United States. In order to provide context, the intellectual property rights in architectural design are used for comparison. Lack of intellectual property protection benefits the fast fashion industry because it allows them to freely copy whole designs which maximizes profit potential and minimizes research and development costs. Finally, the role of design is examined for the fast fashion industry.

Game theory models provide support for the use of low research and development spending, particularly by fast fashion firms. A game theory model is also employed to show that despite the unethical nature of design piracy the existing intellectual property law structure favors the copier in the fashion industry.

Although there are many intellectual property cases filed between fashion companies each year, the majority of cases settle outside of court. Information regarding many cases is limited to popular press articles because the cases never reach the courts. Settlements often benefit both parties because they avoid expensive legal fees and lengthy court battles. There is a social cost to settlements; they deprive the justice system of new precedent rulings. There are landmark cases which provide some insight as to how fashion intellectual property cases are treated in the courts.

Court cases settle when it is economically beneficial for both parties to avoid the cost of a trial. High legal fees and large investments of time make pursuing court battles inefficient. Additionally, if both sides are uncertain of how the judge will rule they are more enticed to offer and accept a settlement. The typical structure of a legal dispute is shown in Figure 2.1.

Figure 2.1: Legal Dispute



Source: Miceli 230

The limited nature of intellectual property protection in the fashion industry, and the expense required to prove wrong-doing, prevents many designers from filing suits against alleged infringers. Small firms cannot afford legal teams, and some may not fully understand their legal rights. As a result, many small firms choose not to file, which is one strong argument for improving common law or administrative law regarding garment copyright. Small firms who do choose to file typically settle because legal fees are higher than their expected probability of winning (*Mercy v DVF*). Larger firms with legal teams and money to spend on a lawsuit will file suit if they believe that there is enough substantial evidence to prove infringement. In some cases, firms may file suit to set an industry precedent that they are willing to take action against infringers (*Lululemon v. Calvin Klein*). The decision to file an intellectual property suit in the fashion industry depends on the nature of the suit—copyright, trademark, patent—and the size of the firm.

Given the prevalence of settlements in fashion intellectual property cases, one can assume that an asymmetric information model is prevalent in the industry. The asymmetric information model assumes that there are two types of plaintiffs: Plaintiff A has a high probability of winning at trial and Plaintiff B has a low probability of victory (Bebchuk 406; Miceli 233; Nalebuff 198). The plaintiffs assumed probability of winning affects the monetary value of settlement which they are willing to accept. The defendant offers a settlement based on what they believe the plaintiff's probability of winning is. The defendant is willing to offer a settlement amount less than or equal to their expected cost of going to trial. The nature of uncertainty, possibly as a result of lack of precedence, lowers the expected certainty of plaintiff victory.

Precedent is important to the courts as well as to businesses and citizens. Understanding legal precedent, also known as "common law," helps a party decide whether or not to file a law suit. Common law also illustrates potential penalties for illegal behavior (Miceli 10). Precedent gives judges a starting point to determine the outcome of court cases, but can be overturned if the precedent is outdated or found to be inaccurate; it can also be expanded to include new factors (Miceli 10). The nature of intellectual property law in the fashion industry is very uncertain because the law is open to interpretation and there is very little common law precedent to guide plaintiffs and defendants. As a result, cases continue to settle more often than not. In this chapter the uncertainty involved in the law is explained using case examples and explanations of the scope of the law.

According to Jonathan Macey and Richard Posner, legal precedence gives the law a level of predictability which improves efficiency by creating a "stock of knowledge" (Miceli 258). The nature of common law allows this stock of knowledge to grow and

change as the precedent becomes inefficient over time. The “stock of knowledge” provided by accumulated precedence induces parties to minimize costs and lowers the stakes of legal cases. The fashion industry could benefit from industry specific intellectual property precedents. Stronger common law could potentially change many aspects of the industry, which will be illustrated later in this study.

II. Intellectual Property in the Fashion Industry

Most contributions from the literature to fashion intellectual property focus on reform opinion and the role of innovation in the industry, but do not dig into the complexities of securing protection and what each form entails. *Fashion Law: A Guide for Designers, Fashion Executives, and Attorneys (2014)* offers a fairly comprehensive look at the available intellectual property protection in the fashion industry. The source provides straight-forward explanations of copyright, trademark, trade dress, design patent, and utility patent protection in the industry using examples and citing well known cases. The editors offer a reasonably unbiased overview of existing laws and precedents without digging too deeply into specific cases or offering critiques and options for improvement. Each chapter explains the finer details of a type of intellectual property protection, why it is important, how to register, how much it will cost, and other helpful tips for designers or attorneys to consider.

i. Trademarks

Trademarks are the most straight forward type of intellectual property protection as they are relatively the same for every industry. Registered trademarks protect logos, brand names, or images that are associated with a brand or product from “confusingly similar marks” (Jimenez, Kolsun 25). Trademarks allow for branding investments.

Consumers make buying decisions based on preferences in an oligopoly market; firms use branding strategies to differentiate themselves and gain loyal customer following. Trademark is the strongest form of intellectual property protection for fashion designers, which is why products are often splashed with brand names and logos (Jimenez, Kolsun 27). Proving forgery is much easier when the counterfeit uses trademarked logos.

It is important to note that there is a difference between a “counterfeit” and a “knockoff” good. A knockoff is an identical or almost identical copy of another good and may be sold through legal means on the market. A counterfeit, on the other hand, is a low-cost replica which violates trademark protection—and in some cases patent and copyright protection—to create a product that is often sold in the underground economy (Jimenez, Kolsun 138). Counterfeit products aim to trick the consumer into believing that it is a “real” product. Counterfeiting is illegal in the United States and many other countries, but it remains a 600 billion dollar global industry resulting in an estimated 250 billion dollar in profit loss for US companies alone (Jimenez, Kolsun 143). Counterfeiting affects many industries and is dangerous to consumers as well as business. The effect of counterfeiting goes beyond lost profits and employment. Counterfeit products use hazardous materials, such as lead paint; counterfeit medication can result in deaths (Bukspan). In the fashion industry, studies by the Center for Environmental Health uncovered lead paint and other hazardous chemicals on fast fashion products in Charlotte Russe, Forever 21, and Wet Seal (Whitehead). Counterfeit manufacturers do not follow legal production standards; therefore the United Nations Office on Drugs and Crime warns consumers of hazardous dyes and chemicals used on counterfeit clothing and products (UNODC).

Trademark in the fashion industry goes beyond logos and brand names. While some designers choose to slap their name or symbol all over their products to protect against design theft, other designs are iconic for their unmarked simplicity. Simplicity in a trademark can create controversy, and not just in the underground marketplace.

Christian Louboutin v. YSL is an extremely famous case in the fashion industry. Not only is this a rare example of a fashion intellectual property case making it in front of a judge, it created important precedent for trademark in the industry. Christian Louboutin famously splashed China Red nail polish on the sole of stilettos to create the signature “China Red Sole” which he features on all his shoe designs (Debrow Cornett 551). Since the inception in 1993, red soles have been synonymous for Louboutin. It is only natural that Louboutin would trademark the design feature that is as recognizable to a fashion savvy shopper as a Nike swish is to an athlete; in legal terms, the red sole has “second meaning” to consumers (Debrow Cornett 551).

The Louboutin red sole trademark was granted in 2008. In 2011 Louboutin sued Yves Saint Laurent over a pair of shoes with a China Red sole (Debrow Cornett 552). Interestingly enough the lawsuit brought to light a controversy larger than fashion giants stealing ideas from one another; the debate became whether or not a fashion designer could trademark a color. The original charges of “infringement and trademark dilution” caused a countersuit for the validity of a trademark color (Marr, Woods 4).

Colors have, in the past, received trademark protection; notable examples include Sticky Note Yellow, Hermès Orange, or Tiffany Blue (Jimenez, Kolsun 36). Trademarking a color is typically done through a trade dress, which allows the owner sole use of the color in a nonfunctional context (Jimenez, Kolsun 36). Trade dress is a form of trademark that offers a more specific protection for certain aspects of product and

branding. Trade dress allows a designer to protect the “characteristics and distinctive visual presentation of a product” (Jimenez, Kolsun 25). Although one cannot copyright the “look and feel” of a product (*Apple Computer, Inc. v. Microsoft Corporation* 35 F.3d 1435), a trade dress allows that protection to an extent. Trade dress protection adds consumer value to luxury products. A trade dress must have an “established secondary meaning,” which means that it is easily recognized by the general public (Jimenez, Kolsun 36). Trade dress protects packaging, size, graphics, shape, color combinations, and other visually significant features. For example, the Tiffany blue box still functions as a box in a different color; yet the color differentiates it and has secondary meaning to customers. The same is true for the Louboutin red sole; the red sole has strong secondary meaning within the fashion industry. This case does not call into question the legality of copyrighting a color; it only questions whether such a privilege should be allowed in the fashion industry (Debrow Cornett 553).

There is an interesting hypocrisy in this court case. The argument against allowing trademark of a color compares fashion designers to artists and insists that restricting colors for designers would be as ludicrous as restricting a shade of blue to only Monet (Debrow Cornett 553). However, in each form of intellectual property protection fashion is considered a functional good, and it is essentially impossible to protect an entire garment from piracy. In order to unify court decisions and define protection adequately, it must be determined if fashion is classified as art or a functional commodity; perhaps a hybrid of the two should be established and clearly defined in order to simplify future disputes. Louboutin is not asking the courts to restrict all shoe companies from using color on the soles of their shoes, nor is he asking that China Red be reserved only for his brand. He merely sought to protect a single color for a single

design aspect, similarly to Post-it establishing a trademark on a particular shade of yellow for a specific product.

The court looked to *Qualitex Co. v. Jacobson Products Co.* for precedent in their final decision. The original case established that colors could be trademarked as long as they served branding purposes but had no other functional significance (*DeBrow Cornett* 549). The court considered the red sole mark to have other functional value because they created an aesthetic appeal and added exclusivity and additional monetary value to the product (*DeBrow Cornett* 554). The decision to apply a blanket rule to the fashion industry disallowing color trademarks was overturned in the appeals process (*DeBrow Cornett* 555). It was eventually determined that Louboutin's trademark is valid, but it cannot protect against monochromatic red shoes with matching upper and soles (*Mar, Woods* 5). Essentially this established trade dress protection for the Louboutin red sole, but only for shoes with contrasting upper design.

It should be noted that YSL was not the first company to knock-off the trademark red sole. An internet search of "affordable Louboutin shoes" will turn up dozens, maybe hundreds of websites hawking counterfeit Louboutin's. Some of these claim to be the real thing; some are so convincing they fool even die-hard Louboutin shoppers while others are shoddy imitations. YSL was the first of Louboutin's popular direct competitors to attempt to use a red sole. YSL produced a shoe that could be considered confusingly similar to a Louboutin product, thereby posing a threat to the Louboutin image and allowing another designer to profit. The knock-off shopper is not traditionally considered the luxury brand's target client. In fact, Tom Ford, a highly influential American fashion designer, spoke at a conference on intellectual property and stated that "the counterfeit customer is not our customer" (*Ford* 50). Although, ironically, seven years later Ford is

quoted criticizing Zara—a fast fashion corporation—for knocking off his designs (Foley 1). Internet scams and fast fashion make the overlap in consumers more prevalent.

In 2012, Louboutin filed a trademark suit against Zara in the French court (Cowles 1). Once again a brand produced a shoe with a red sole with a striking resemblance to a Louboutin product. However, in this case the court ruled against Louboutin, claiming that anyone could tell the difference between a high quality Louboutin and €40 red sole peep-toe sling back (Cowles 1). This argument does not take into account that target markets can overlap; perhaps the average Zara customer cannot afford Louboutin, but Louboutin clad fashion editors and socialites have been known to shop at Zara and other fast fashion giants (La Ferla 1).

The different interpretations of the courts in these two cases bring the issue of international intellectual property protection to light. International trademarks are difficult to enforce as there is no international court. This case took place in France between a Spanish firm (Zara) and a French firm (Louboutin). International firms do not have a suitable option for cases against foreign firms, nor is there a system for international precedent.

Comparing the US and French interpretations of the Louboutin trademarks helps bring another issue to the table. The French are considered more cognizant of fashion designer rights and are said to observe stricter intellectual property laws, yet the courts provided a ruling that was less rigid than American courts (Barrère, Delabruyère 310). International understanding of intellectual property is another segment of this issue that must be explored in depth as fashion is a global market. Treatment of intellectual property in fashion capitals of the world—the United States, France, Italy, Japan, and

China—from a consumer and political standpoint are an important topic for further research.

ii. Copyright

Copyright protection in the fashion industry is minimal and ambiguous. Garments are considered useful goods under the law and, as a result, there is a lot of gray area in copyright law in regard to fashion (Jimenez, Kolsun 45). Generally speaking, copyright grants fourteen years or the creator's lifetime plus seventy years of protection (Jimenez, Kolsun 45). Copyright is often thought of in regard to books, music, and other creative works. Fashion, as a creative industry, would theoretically be a natural fit for copyright protection; it is a commodity with artistic roots.

Garments are not protectable by copyright, but drawings, photographs of designs, jewelry, and original textile prints are protectable (Jimenez, Kolsun 45). Copyright is only applicable in the fashion industry for pieces of a design that may be removed from the useful article to create a separate non-useful good. For example, belt buckles or appliqué which can be separate works of art and do not contribute to the use of the garment are protected. This is known as the “physically separable” test, which creates ambiguity and room for interpretation (Jimenez, Kolsun 46). The cited example in *Fashion Law: A Guide for Designers, Fashion Executives, and Attorneys* is *Jovani Fashion, Ltd. v. Fiesta Fashions*.

Jovani v. Fiesta created the question of where the line between form and function lies. *Jovani* filed for protection for their signature prom dress which included a beaded appliqué and ruche detailing as decorative elements (Jimenez, Kolsun 48). Although the dress would still serve as clothing without those design embellishments—sequins, beading, tulle, etc—they could not be sold as separate items (*Jovani Fashion, Ltd. v.*

Fiesta Fashions 12-598-cv). The court ruled that the design embellishments acted as “a merger of aesthetic and functional consideration” because they made the dress formal which enhanced its functionality instead of merely embellishing (Jimenez, Kolsun 48).

The ruling in *Jovani Fashion, Ltd. v. Fiesta Fashions* comes from precedent from an earlier case, *Chosun Int'l v. Chrisha Creations (Jovani Fashion, Ltd. v. Fiesta Fashions 12-598-cv)*. *Chosun v. Chrisha* established that “if a useful article incorporates a design element that is physically or conceptually separable from the underlying product, the element is eligible for copyright protection” (*Chosun Int'l v. Chrisha Creations 04-1975-cv, 04-2228-cv*). The application of this restriction on the fashion industry plays an important role in proposed copyright legislature. In actual practice it is rarely realistic to have “physically and conceptually removable” aspects on a garment to guarantee protection (*Jovani Fashion, Ltd. v. Fiesta Fashions 12-598-cv*).

Unique textile designs are eligible for copyright protection because they are not explicitly “useful” goods (Jimenez, Kolsun 45). Textile design embellishes useful material, and jewelry is considered, for all intents and purposes, wearable art. Textile designs can come from a number of places. Some designers work with textile mills or textile design firms to purchase textiles, other designers—such as Anna Sui, Diane Von Furstenberg, and Betsey Johnson—design their own textiles for a completely unique product. Textile design gives a fashion designer another level of control in the supply chain, and allows them to create a truly unique product. Although a textile design can be protected, the matter in which it is used cannot be. Even if a designer creates every aspect of a design, from fabric to construction, they may only protect the textile itself and not the dress they make from it.

Jewelry is also protected under copyright law. In recent years fast fashion companies frequently have been accused of jewelry copyright infringement (Dachille). The requirements for copyright protection are “originality and fixation” which are both reasonably simple to prove in the jewelry industry since jewelry is tangible and the sculptural qualities allow for a great deal of originality (Dachille). Proving infringement can be difficult; however, it is possible and can be worthwhile for large companies or startups with enough money to go after the infringer.

Fast fashion firms are able to freely copy designs. Copyright, for garments, is the most ambiguous form of protection. It is difficult to qualify for copyright protection, and even more difficult to prove infringement. Fast fashion firms do not infringe on trademarks because they will likely be prosecuted and found liable. However, directly copying whole designs is legal under the current system of protection. When copyright cases are filed, they typically settle quickly outside of court due to the asymmetric nature of information in these cases. Given the lack of precedent and ambiguity of fashion intellectual property, each party is uncertain of the evidence presented by the other side. For example, a firm may sue another for producing an identical line of floral dresses; however, the other firm may have documented evidence that their line went to production before the plaintiff’s line entered the market. It is in the defendant’s best interest to offer a settlement that will prevent a trial with an uncertain outcome. Establishing formal legal protection for designs is the most effective way to protect designers from design piracy; the current case law system does not provide adequate protection for innovators in all market segments.

Under the current system, copying designs and settling the resulting lawsuit is more profitable for fast fashion firms than appropriated design. Consider Forever 21,

producing direct copies resulted in over fifty trade dress and copyright lawsuits. All cases settled outside of court, yet the company continues to copy designs. If luxury firms wish to eliminate copying then settlements or court mandated penalties must be set higher than profits from knock-off goods. Thus far, no attempts to create a formal legal deterrent for copying have passed.

In a statement to Congress in 2006, the US Copyright Office expressed that “the tentative view of the Office is that there may well be merit to the view that fashion designs should be given protection similar to that enjoyed by vessel hull designs, but the Office does not believe it has thus far been presented with sufficient information to reach a conclusion on the need for such legislation” (*Protection for Fashion Design* 1). Vessel hull design protection comes from the Vessel Hull Design Protection Act of 1998; this act protects ship design in the marine industry. The law allows designers of vessels to protect the boat design as a whole through a design registration process, as opposed to protecting only one unique feature of the boat (*Registration of Vessel Designs* 1). When applied to the fashion industry, this would allow a designer to protect not only innovative design features, but also use of an existing design element in a unique context. Proponents for increased intellectual property protection in the fashion industry typically lobby for amendments to copyright law. Organizations such as the Council for Fashion Designers of America and the American Apparel & Footwear Association attempt to lobby lawmakers to push forward new legislation offering designers more protection from design piracy.

In 2012, Senator Charles Schumer introduced the *Innovative Design Protection Act* (IDPA, S. 3523) to legislature. The act set out to extend copyright protection to designers while also defining clear and reasonable infringement standards to reduce court

costs and lawsuits (CFDA). The act allows designers three years of protection for apparel (including clothing, sunglasses, handbags, etc) or ten years for a vessel hull (S. 3523, 2012). The act protects against counterfeit copies of original designs; in other words, only deliberate knockoffs which are “substantially identical” could be accused of infringement (S. 3523, 2012). The bill was reported to Congress but it was not enacted and no further revisions or proposals have been made by legislators. Congress passed the bill through to the Senate in 2012; although the bill made it to the senate agenda for December of 2012 no further decision came forth.

The IDPA was not the first attempt to improve copyright protection for fashion designers through administrative law. In 2009 Bill Delahunt introduced the *Design Piracy Prohibition Act (H.R. 2196)* to the House of Representatives. Then, in 2010 the *Innovative Design Protection and Piracy Prevention Act* went before the Senate. Both bills were shelved, and revised to create the IDPA. Congress shelved all three bills; despite this, there is still a push from fashion designers to create copyright protection.

Advocates argue that copyright protection helps small firms to succeed in the long run. Supporters for design copyright raise an important issue regarding competition. . In a testimony to Congress, fashion law expert Susan Scaffidi explained the ramifications of piracy on young designer:

Young designers attempting to establish themselves are particularly vulnerable to the lack of copyright protection for fashion design...These aspiring creators cannot simply rely on reputation or trademark protection to make up for the absence of copyright. Instead, they struggle each season to promote their work and attract customers before their designs are copied by established competitors. Over the past century successive waves of American designers have entered the

industry, but few fashion houses have endured long ... While it is difficult to quantify or even identify designers who give up their businesses, particularly for reasons of piracy, there is strong anecdotal evidence that design piracy is harmful to the US fashion industry (Scaffidi 7).

Small fashion start-ups struggle enough in the current structure because barriers to entry regarding manufacturing and client acquisition are high. Design piracy is one more concern which can cause a talented designer financial ruin. Small firms have the most to lose from unregulated piracy. Fashion entrepreneurs or small business typically cannot afford litigation costs against larger companies or even designers of similar size (Barton 441). Uncertainty due to vague protection of rights only adds to the expense of litigation, and deters small firms from pursuing legal action. It is also difficult for small designers to establish the “secondary meaning” necessary for unregistered protection.

As Susan Scaffidi explained to Congress, there is ample expository evidence of the effect of design piracy on start-ups. In a personal interview, Peach Carr told the story of how a lack of protection jeopardized her career:

In 1997 my first design (a children’s cape) was going to be carried by a large high-end department store; the samples went to headquarters and contracts were drawn. The day of the signing, the deal was called off and eight months later the garment was produced exactly as mine, but under the store’s label...I had no recourse, because there are no copyright laws for design. I also had another local designer rip off my entire first collection, reproducing it in her fabrics; again, there is nothing I can do (Carr).

A setback such as this would bankrupt most designers; luckily Peach overcame this hurdle and continues to design for her own company (Carr). Barriers to entry are high for

new fashion firms; creating a collection is expensive and risky as small designers often do not have access to trend reports and market research that protect large designers. Small designers rely, in theory, entirely on creativity and talent. Granting thorough and specialized copyright protection for fashion designers has the potential to encourage a new generation of designers to open firms. The piracy paradox argues that copying designs makes styles irrelevant and leads to innovation; however, having an environment where creativity is protected for firms of all size can also have that effect. Piracy is not the only way to breed innovation and create economic activity.

In some cases, small firms are able to receive damages for design theft. Diane Von Furstenberg, a luxury fashion designer, is one of the main champions for intellectual property in the fashion industry. She is the president of the Council of Fashion Designers of America, helped create the IDPA, and the owner of the successful international brand DVF. Von Furstenberg is revered as a highly innovative designer and savvy business woman; she is credited with the invention of the icon wrap dress. She gave up her royal title in the 1970s to pursue a career as an entrepreneur; being a fashion designer was not her initial plan. She is an advocate for women's rights and design protection. Von Furstenberg has experience as both a plaintiff and a defendant in copyright lawsuits. She took on fast fashion companies, and, in a very interesting case, was sued by a small design firm. *Diane von Furstenberg v Mercy* is a rare example of a small firm taking on a large corporation. Mercy is a small Canadian firm. The initial design—a cropped floral jacket—appeared in their 2008 collection; DVF featured a strikingly similar jacket the following year (Akhtar). The case settled out of court with monetary compensation and a public apology from Von Furstenberg. Had the owner of DVF not been a public

proponent of design copyright the case may have had a different outcome or potentially never occurred.

Despite the strong arguments for design protection, there are scholars who believe that the fashion industry benefits from design piracy. The most common argument against fashion copyright protection is known as the “Piracy Paradox” (Raustiala, Sprigman 7). Proponents of the piracy paradox argument believe that copyright law is unnecessary in the fashion industry because copying pushes innovation forward (Raustiala, Sprigman 7). Trends in the industry appear to follow a trickle down structure: high fashion designers create trends; those trends are copied at lower and lower price points until the market is flooded. Trendsetters are then no longer interested in the design that everyone else has and demand new products from the top brands. This cycle can be observed in hundreds of fads, such as peplum dresses or military inspired jackets, throughout the years. Raustiala and Sprigman admit that individual designers are harmed by copying in some cases; however the overall industry is able to flourish (Raustiala, Sprigman 21). This argument does not take into account the ethics behind design piracy. Ethics and profitability do not always coexist in a capitalist economy. However, in the case of the fashion industry, design piracy may, in the long run, effect innovation as creative firms, such as Gaultier, exit the market and new firms choose to pursue other industries with higher ethics standards and stronger legal protection.

The piracy paradox focuses on the rate of innovation in the fashion industry. One critique of this view argues that design piracy forces firms to “anchor” to trends in order to sell product (Barrère, Delabruyère 315). In other words, knockoffs allow the industry to flood with a certain trend which forces designers to include said trend in their collections in order to stay competitive and meet consumer demand. Consumers are, essentially,

trained to follow trends in order to build financial security for fashion designers. This argument is a double-edged sword. Although it is an excellent critique in opposition to the foundation of the piracy paradox, it is also a legitimate commentary on one of many corruptions within the fashion industry.

Fashion designers rely on trend reports to make money; fashion is first and foremost a business with the goal of making profit. While it would be nice to believe that free artistic liberty is the goal and desire of every fashion designer, it is not necessarily realistic. Fashion designers follow trends in order to make a profit and have a safety net against fickle consumers. Trend forecast agencies, such as TrendStop, Stylesight, and WGSN, allow designers to subscribe for seasonal trend reports which give a look at the upcoming season. Designers follow these reports in order to minimize research and development costs and minimize risk. The use of trend reports by supposedly innovative firms adds further grey area to the debate over whether garments deserve copyright protection.

Copyright protection is not a black and white issue. Not all designers demand copyright protection in the industry. Borris Powell, a Chicago-based luxury apparel designer, does not believe that copyright protection is necessary for the fashion industry, even though he was the victim of a piracy scam run through an offshore manufacturer (Powell). In a personal interview, Powell expressed that he “can't always agree with protecting a design when there's such a thin line with what is new and what isn't” (Powell). It is difficult to determine if a design is a direct copy or an original interpretation of a classic design. The scope of design protection is an important debate that will likely continue; architecture copyright laws provide an interesting comparison and potential precedent for future fashion intellectual property law reform.

Architecture and fashion have a number of similarities; basing fashion copyright on existing architectural copyright may provide a solution to the industry debate. Coco Chanel once said “fashion is architecture: it is a matter of proportions.” Although Chanel was a brilliant visionary she was not the first or last to make this comparison. Although it may not seem a logical connection, fashion and architecture are linked in a number of manners. Many fashion designers have backgrounds in architecture; the two fields require similar types of visionary, yet analytical, minds. Architects and fashion designers must be able to convey their ideas first on paper and then in three dimensional form (Hodge 2). In fact, many successful fashion designers, such as Airi Isoda, Tom Ford, Lara Presber, and Angel Sanchez, have backgrounds in architecture. The relationship between fashion and architecture is obvious when examining the languages used in both industries and comparing the aesthetic techniques used in both fields during different historical eras (Hodge 2).

Fashion and architecture are often compared from a creative standpoint because they are interrelated in history. For example, in the Regency period in Great Britain skirts and doorways grew wider and wider to accommodate each other and the latest styles (Quinn 1). In fact shared trends between architecture and fashion can be seen throughout history. In the 1920s and 30s “deco” design motifs were found on clothing, accessories, art, cars and buildings. The relationship between fashion and architecture flows both ways, and can be literal or abstract in interpretation. Fashion now reflects the clean modernism of new architecture, or, in the case of fast fashion, epitomizes cookie-cutter suburban developments. In architecture, like in fashion, there are visionary artists creating new and beautiful structures, but there are also run of the mill architects relying on stock ideas.

Architectural structures, similar to apparel, maintain similar basic elements that are known throughout the industry and available to all firms. In architecture this would include doors, windows, walls, etc. (UIA 5). Fashion also works from a set of basic elements (sleeves, hemlines, necklines). In both cases artistry and innovation come from how a designer or architect interprets those base materials and adds to or recreates them.

Buildings, like clothing, can be ornate or simple. A wooden shack provides the same function, generally speaking, as the palace at Versailles, from the standpoint that they are both shelter from the outdoors. People will always need shelter, just as they will always need clothing, so there will always be a market for new goods and services in the respective industries. Of course, the rate of consumption is vastly different between the two industries; however they are both industries where quality and craftsmanship differentiate firms and product longevity. Although at different scales, innovative architectures require investment of time and money just as fashion does. The amount of investment differentiates the visionaries from the average firms.

Architecture and fashion both fall between the strict definitions of art and useful goods. Both buildings and clothing serve the purpose to shelter, but both industries use creative means to execute original products. Clothing is not offered copyright protection under US law because it is difficult for courts to differentiate between functional and decorative features in apparel. Architecture, however, is eligible for copyright protection in the United States.

Section 102 of the Copyright Act extends protection to original building designs created on or after December 1, 1990. In order to be eligible the building must either be built or constructed through a model, thorough architectural plans, or drawings (“Copyright Claims in Architectural Works” 1). Two-dimensional fashion sketches and

designs are protected under copyright law, just as a painting or a blueprint is protected. The difference in the laws between fashion and architecture is that a physical building can be protected, but a physical garment cannot.

The rationale, as stated before, behind not offering copyright protection in the fashion industry is that the functional and decorative aspects of a garment are not easily discernible. In some instances decorative elements are said to aid the overall functionality of the garment (see *Jovani Fashion, Ltd. v. Fiesta Fashions*). In architecture, the standard for protection is only that the building not be a direct copy of an existing structure in order to be original.

If copyright protection were to be extended to the fashion industry then a law similar to the architectural law would be appropriate. Giving designers free rein over an established basic “box of tools” such as a raglan sleeve or a scoop neck, allows less creative firms to sell basic pieces as they always have; essentially they would become the cookie cutter subdivision of the fashion industry. This allows creative firms to innovate freely without fear of their designs being stolen and reproduced at a lower price. Such a system gives a higher market value to creativity while still allowing firms at every level to stay competitive based on marketing, price, or quality. The only companies who would be economically harmed by this system would be design pirates or fast fashion firms who produce knock-offs. The nature of the fashion industry would require a smaller window of protection for original designs, given the product cycles of the industry. Copyright protection in the fashion industry would change the barriers to entry in the fashion industry. Requiring fashion firms to rely on creative design would make product differentiation a barrier to entry for firms at all market levels, instead of only in the luxury, start-up, and couture markets.

iii. Patents

Design and utility patents play a role in the fashion industry, but are expensive and time intensive to obtain. However, they are viable protection alternative when a designer cannot obtain copyright (Jimenez, Kolsun 53). Design patents offer fourteen years of protection for an ornamental design of a good or component of a good (Jimenez, Kolsun 53). For example, the ornamental motif on a decorative clasp of a bracelet could be eligible for a design patent, but the functional part of the clasp would have to be covered by a utility patent if it is an innovative type of clasp. Utility patents tend to fall on the production side of the industry instead of the creative, although there is overlap. A utility patent applies to a new and unique functional aspect of a good (Jimenez, Kolsun 59). In the fashion industry, for example, production methods are eligible for utility patents.

As the fashion industry enters an advanced technical age, more and more disputes over patent infringement come to the courts. Cufflinks that double as USB drives, cocktail rings that sync with a cellphone to alert the wearer of calls, texts, and emails, and bracelets which monitor your activity levels are just the beginning for the wearable tech industry (Schmidt B10). Wearable technology is a new trend in the fashion industry that is likely to cause great debates in the coming years; as tech firms attempt to be the first to create wearable technology, the line between form and function will certainly be called to the courts. After all, the tech industry is dependent on being the first to patent new ideas. Firms are already considering how patent races will affect business and how to best protect themselves in this new market (Suzan 1). Technology plays more than one role in the industry, however. New technological processes for production or design are also creating controversy in the courts.

RevoLaze LLC filed suit in August of 2014 against seventeen American brands and retailers who produce denim products outside of the United States through third party manufacturers (“ITC Investigating”). RevoLaze holds over twenty international patents for technologies which distress denim using safe processes. Traditionally, distressing denim required acid and sandblasting techniques; both processes are exceptionally dangerous to workers and major denim brands now comply with a code which states their manufacturers cannot use sandblasting to distress denim. RevoLaze, a growing Ohio-based company, stood to make a large amount of money from this innovation (Donaldson). Piracy from foreign manufacturers has the potential to ruin the firm financially. The case presents a number of interesting aspects of intellectual property. International patents are difficult to enforce due to the lack of an international court. Additionally, the suit is against the name-brand denim companies; these companies use third party manufacturers. The court must determine if the US firm bears responsibility for confirming the legality of contractor technology. This case, if it makes it to court, will likely set international patent precedents for the fashion industry. The case was filed through the US International Trade Commission which has rarely dealt with cases regarding the fashion industry (“ITC Investigating”). Although the outcome of this case will remain unknown for at least a year it will be a groundbreaking look at the relationship between brands and their third party manufacturers. Patent cases are rare in the garment industry as there is very little technology needed for the garments themselves; any patents would typically be for manufacturing. The important question while the case is in its early stages is whether the denim brands are guilty of infringement or if this suit should be against the manufacturers. Such a decision may create precedent for other third party manufacturing violations, such as safety investment and labor rights.

Currently there is a legal disconnect between corporations and their suppliers; precedent in this case may help to close that gap.

Design patents are another tool that fashion designers have to protect their work. In 2012 Lululemon sued Calvin Klein for design patent infringement claiming that Klein copied the patented waistband on the Lululemon “Astro Pant” (Rogers 1). The case eventually ended with a private settlement, as most court cases in the industry do. The court case may have been a strategic move for Lululemon; intellectual property expert Jeremy de Beer explained that: “What Lululemon is doing here is staking its turf. The business strategy is to deter other people from even trying to copy designs, because it's going to cause them legal problems” (Rogers 1). By suing Calvin Klein, Lululemon publicized to the world that they would do what they needed to in order to protect their original designs. In this case taking on the financial burden of a lawsuit, no matter the outcome, was economically strategic in order to deter copyists and prevent profit loss in the future.

iv. Trade Secrets

Trade secrets allow firms to protect their innovations and process without formal registration (Jimenez, Kolsun 63). Although there is little legal protection for trade secrets because they are unregistered, a company can take legal action against corporate espionage (Miceli 183). Many industries which are not protected by intellectual property law rely on trade secrets to maintain their competitive advantage. Protecting design and production secrets is important in the fashion industry. Designers and executives move from firm to firm, and non-compete and non-disclosure contracts can lead to expensive lawsuits.

The most famous corporate espionage case in the fashion industry occurred as a result of a failed partnership between Tory Burch and her ex-husband (LaFranco 1). Tory Burch owns and runs a multibillion company in her namesake (O'Connor 1). The firm is famous for its classic leather flats with the Tory Burch trademark logo on the toe. The international brand also produces handbags, shoes, dresses, eyeglasses, and recently launched a fragrance line (LaFranco 1). Her husband, who served as an advisor at the company for almost a decade, left the company after their divorce and began a new firm with a similar product line (O'Connor 1). The battle went on for quite some time and resulted in a number of countersuits, but was eventually settled and left Tory Burch a billionaire (Jimenez, Kolsun 64).

Trade secrets are most relevant in the haute couture segment of the industry. For example, Jean Paul Gaultier employs a woman in his atelier who is an expert on Irish crochet and lace making techniques. Many of the techniques she uses are almost entirely forgotten by society, which makes her complex work nearly impossible to replicate (*The Day Before: Jean Paul Gaultier*). Trade secrets give designers a competitive advantage in many instances. Designers who value creativity and innovation are able to protect the integrity for their designs by creating new techniques in creating a garment.

III. Global Enforcement

Society becomes more and more global as changes in technology make transportation and communication faster, cheaper, and easier. A global society proves to be both good and bad for the fashion industry. Having access to new sources of inspiration and raw materials allows designers to access new creative spheres and bring

together cultures through clothing. However, technology also makes design piracy much easier and faster.

The nature of supply chains and global markets make it difficult for firms to file infringement suits against one another. Global intellectual property rights are limited and hard to enforce as there is no international court for intellectual property. Firms like Forever 21 hide behind suppliers and contractors when they are accused of infringement, and it is difficult to determine where the burden of proof lies so cases typically settle outside of court (Chang).

Consumer value for innovation and quality is also changing globally. Luxury markets in East Asia are expanding while fast fashion firms flourish in North America and Europe (Wassener). Although countries, such as China, with Communist political parties, do not support intellectual property, the consumer desire for name brand goods may protect designers in these new markets. Developing new markets which value name brands and quality is potentially a viable strategy for designers who are facing pressure from fast fashion competition and diminishing demand from Western markets.

The value of intellectual property rights is different around the world depending on the social and political values of the nation. Communist and socialist nation-states shy away from intellectual property laws because their ideologies are based in communal ownership and government control of ideas. Countries with long legacies of creative and artistic traditions are more likely to enforce strict intellectual property laws. For example, when traveling in Italy, guides warn tourists not to purchase counterfeit goods from illegal street vendors. If the police catch a person buying an illegal counterfeit the purchaser is fined between 3000-10000 euros (Imboden). The hope is that by putting the

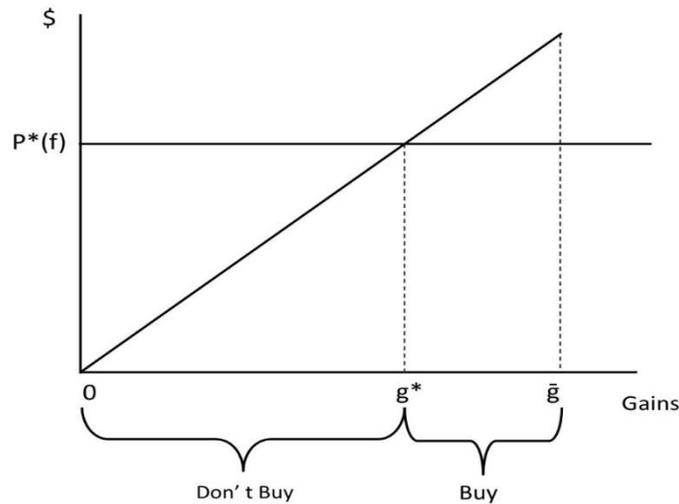
risk on consumers they will eliminate demand for forgeries and bring stronger business to authentic Italian brands.

In order to effectively criminalize the purchase of counterfeit goods the penalties must be set at the optimal punishment level. For the purpose of this example, consider a counterfeit Prada handbag. To purchase the full price bag from the Prada store in Milan the buyer would pay 2,500 USD after conversion. A forgery of that same bag runs approximately 50 USD. Prada bags, because they are designed by Italians and produced in Italy using raw materials from Italy, are protected with higher forgery fines than illegal Hermes or YSL bags (Freeman, Forden). As a result, assume that the fine for purchasing the knock-off bag is approximately 12,600 USD (based on Oct. 2014 conversion rates). Assume that there is a fifty percent chance of getting caught purchasing faux handbags in Milan due to increased enforcement. Also, assume that quality and authenticity are not important to the purchaser; they are only concerned with cost.

Applying Becker's model for rational choice to commit a crime, one can assume that a buyer will purchase the counterfeit good only when the money saved by purchasing the counterfeit is greater than the probability of getting caught times the penalty (Miceli 274-275).

$g > p^*(f+ct)$; as show in the graph below:

Figure 2.2: Supply of Counterfeit Purchase Offenses



Source: Miceli 275

In Figure 2.2, g represents the gains from purchasing the bag—the money saved from buying a fake— p is the probability of getting caught, f is the fine, c is the cost of going to jail, and t is the length of the jail sentence. In this situation there are only fines instead of potential jail time, so $t=0$ where t is the time spent in jail. By imputing the information, the optimal fine should be set as follows:

$$(2500-50) > .5 * (f)$$

$$2450 > .5f$$

$$4900 < f^*$$

The result of this model shows that as long as fines are set above 4,900 USD there should be no incentive to purchase knock-off handbags if the consumer is acting rationally. If the government decided to calculate the fine as a harm based fine, where the Italian designer is the victim, then fines would be set where $f = h/p$. Harm, in this case, would be the profit lost.

$$f = 2500/5$$

$$f^* = 5000$$

Considering that the actual fine for buying a counterfeit Prada can be more than double the optimal fine there should be no incentive to purchase a knock-off. However, the industry still thrives in Italy and all around Europe despite such fine structures and increased enforcement in major tourist cities such as Milan, Florence, Rome, London, and Paris. A number of factors may contribute to the continued purchasing of counterfeit goods. Some consumers may be less risk-averse than others, which leads them to miscalculate the probability of apprehension. It is also possible that the expected probability is less than half; however, public prioritization of enforcement suggests otherwise (Kington). Others may derive value from the “thrill” of purchasing an illegal good, the way that some people do from shoplifting. It is also possible that, due to language barriers, they are unaware of the illegality of their activities and believe that buying from street vendors is a part of the culture in the country they are visiting.

The counterfeit example illuminates a deeper issue in consumer culture in the fashion industry. Many consumers put price and quantity before quality and originality when making buying decisions. The rise of the fast fashion empire is a result of this consumer mindset. Clothing is a wonderful tool for self-expression, but it is a tool that, when used in the wrong way, can lead to horrible externalities. Additionally, counterfeiting goods is illegal for a number of reasons including intellectual property theft and illegal economic activity. Countries do not wish to condone individuals to profit from the designs of others, especially through illegal channels. It should be argued that firms who profit from pirated designs through legal channels should also be held liable

for infringement, since both practices violate the ethics behind intellectual property rights.

Initially, it seemed obvious that enforcing stricter intellectual property laws would help to eradicate business models which rely on pirating designs; typically firms which rely on stolen designs are firms which seek to minimize costs regardless of ethics and morality. The counterfeit example, while viable for “black market” goods, is not a realistic way to police design theft in the mainstream consumer market. It is not reasonable to fine consumers for buying knockoffs purchased from fast fashion firms. However, selling knock-off goods through legal channels should be policed as thoroughly as the counterfeit market. Copyright, in a global community, is difficult to enforce, however.

The limited nature of American and international intellectual property rights allows fast fashion firms to copy designs freely. The product development process for fast fashion firms provides great insight into how these firms make large profits on cheap clothing. The use of trend anchoring, rapid production, innovative supply chains, and design piracy allow firms to cut input costs. The complicated nature of supply chains in the fashion industry further complicates determining which party holds to the burden of negligence. Given that there is no global court system for intellectual property disputes there are better means to challenge the unethical practices of fashion businesses.

IV. Design in the Fast Fashion Industry

Fast fashion poses many ethical and economic concerns for the fashion industry and consumers. High fashion designer Boris Powell offers an interesting perspective on the issue; he expresses that fast fashion companies create “a sad disconnect with the

consumer and the Designer” and “fashion that doesn't last and has no meaning” (Powell). Fast fashion companies, such as Topshop, Zara, H&M, Target, Walmart, and Charlotte Russe, are notorious for selling copies of designer products for a tenth to one hundredth of the cost of the real product. One of the largest and best known fast fashion firms, Forever 21, has been sued over fifty times for copying designer fashions (Solomon 7). All but one of those lawsuits was settled out of court; therefore Forever 21 can continue to say they have never been found liable for infringement (Chang). In the case which did not settle before trial, the judge declared a mistrial and the two firms settled before a retrial occurred (McKenzie). Firms such as H&M and Zara prefer to “produce a spin on designer styles” and employ large teams of in-house designers to produce both original and appropriated designs (Cline 107). Most fast fashion firms, however, have economic incentives to directly copy styles; as long as copyright protection in the industry is ambiguous these firms will continue to copy.

In an anonymous interview, a Forever 21 “designer” described the working conditions at Forever 21 corporate offices. Breaks are scheduled and announced with a bell, cameras monitor every work station, cafeteria food is “worse than jail food,” and employees must always wear an ID badge and clock in and out by scanning their fingerprints (Cline104). The designer who offered this insight was hired to create “original products” for Forever 21, however her “sketches for new design were tossed on top of a shelf and left there to languish for eight months” (Cline 104). It is cheaper and faster to use manufacturers “designs,” which are typically knock-offs produced in the cheapest manner possible (Cline 105). Manufacturers know how to take trends and recreate them using designs which use the least raw materials and time. In fact, before 2007 Forever 21 did not have any in-house designers (Cline 107). By outsourcing both

design and production to contractors the brand can reap the benefits of final sale without bearing the responsibility for due diligence in intellectual property disputes.

Intellectual property protection is intended to fuel innovation, not stifle it. Fashion designers are not done innovating; there will always be new silhouettes and techniques. Scholars writing about the fashion industry fail to take into account that fashion has a long and ever-changing history; people did not always wear the same styles. There is room for innovation and change in the market, but designers need an environment where they can create and reap the benefits of their creation so they have an incentive to continue in the industry.

It is true that innovation occurs in the fashion industry despite design piracy. Piracy is not a necessary component of the industry though. It is a basic principle of economics that, in the absence of barriers to entry, firms with a competitive advantage will succeed and other firms in the industry will either differentiate themselves or they will exit the market and enter one where they can be profitable. In the absence of design piracy, a company will succeed in the fashion industry if they employ creative designers instead of copy artists. The current state of the industry allows fast fashion firms with knock-off based product lines to flourish and gross millions—even billions—of dollars in profits every year while luxury designers with emphasis on craftsmanship struggle to hold on.

In a letter to *Women's Wear Daily* describing his recent shift in business models, Jean Paul Gaultier expressed his feelings on the changing apparel industry: “the world of ready-to-wear has evolved considerably. Commercial constraints, as well as the frenetic pace of collections, don't leave any freedom, nor the necessary time to find fresh ideas and to innovate” (Socha 1). The ever quickening pace of fashion fueled by pressure from

fast fashion corporations is destroying the art of the industry and turning fashion into the strictly “useful good” that intellectual property law considers it to be. Designers, such as Gaultier, are being turned off of the ready-to-wear industry—thereby inducing players to exit the market and decreasing innovation—and turning to other projects in order to maintain their creative passions and make profit.

Innovation in the fashion industry takes significant expenditures of time and money. For example: “It takes more than a month and an enormous amount of work to create an elaborately detailed and colored, lushly illustrated Ferragamo silk foulard” (Backus 1). Only twelve to fifteen new scarf motifs are created for each season, a far cry from the hundred new garments per week that fast fashion firms churn out (Backus 1). There still remains a dedicated market for established luxury brands, but there is little room for new players to enter the industry. Young designers cannot afford to sustain on couture collections and two ready-to-wear lines a year.

According the Bureau of Labor Statistics, in 2012 there were 22,300 jobs for fashion designers in America and the job outlook for the next ten years is in decline. Other aspects of the industry are growing, however; for example, the outlook for models is 15% employment growth. The supply of fashion designers is currently higher than the demand from firms. The BLS explains that due to outsourcing “...employment of fashion designers in the apparel manufacturing industry is projected to decline 51 percent during the projection period. Declining employment in the apparel manufacturing industry is preventing overall employment of fashion designers from increasing...strong competition for jobs is expected because of the large number of people who seek employment as fashion designers and the relatively few positions available” (Bureau of Labor Statistics: *Fashion Designs* 1). Copying is cheaper than innovating; saving money on research and

development allows for a larger profit margin. If a firm can hire one person to recreate someone else's design then why should they employ an entire creative team of visionary designers? Copying designs allows fast fashion firms to limit research and development expenses while piggybacking off the success of established or popular designs.

Innovation does not necessarily come from having a full arsenal of tools and endless opportunity and resources. Innovation often results from people who turn nothing into something. Bootstrapping and improvising breed some of the most creative inventions of all time; sometimes restrictions and limitations serve as the greatest inspiration. Perhaps the issue of innovation goes deeper than intellectual property and employment. Fashion schools teach creativity and design, and, although they teach technical skills, they do not teach the couture techniques or specialty crafts that are still in demand in the industry (Martin 1). Schools are teaching students how to innovate even though the current market is not set up to support more designers.

This study views piracy as a symptom of an industry that is in need of reform. Using piracy as a tool to push forward innovation was important in the 1930s when very few firms had the knowledge to innovate on their own, however the current market is flooded with creative designers that cannot find work (Raustiala, Sprigman 31). Criminalizing design piracy may allow those creative designers to open new businesses or grow existing firms and achieve the same or greater levels of market growth as the current market system. Yes, creativity is more expensive than imitation, however the individual bears the weight of the initial investment (their education) so firms should be eager to bring in new talent. Given the right circumstance, copyright protection could prove fruitful for the overall welfare of the fashion industry.

In order to be economically efficient, copyright law must weigh the marginal costs and marginal benefits of offering protection. The cost of protection is limiting access to certain ideas as well as the cost of administering intellectual property rights; the benefit of protection is the creation of new ideas or works. In order to determine whether or not copyright protection is necessary for the apparel industry one must conduct a thorough marginal cost/marginal benefit analysis of innovation in the industry. For the purpose of this study, the underlying assumption behind the economic models is that there is ineffective or unavailable intellectual property protection; this allows fast fashion firms to cut costs through design theft, thereby maximizing their own profits using the research and development of another firm.

The basic economic theory of intellectual property rights, states that in a market where competition drives down price—in the absence of intellectual property protections—a firm will not innovate if they cannot recoup at least their original investment cost (Posner, 48). Within an industry without property rights firms are more likely to invest less in innovation, especially when the copyists' costs to produce are significantly lower (Posner, 48). This theory applies directly to the fashion industry. Major fashion corporations rely on professional trend forecasting when creating their collections in order to reduce the cost of innovation and reduce risk. Fast fashion firms rely on direct copying to limit research and development costs and create a product consumers perceive to be in-style.

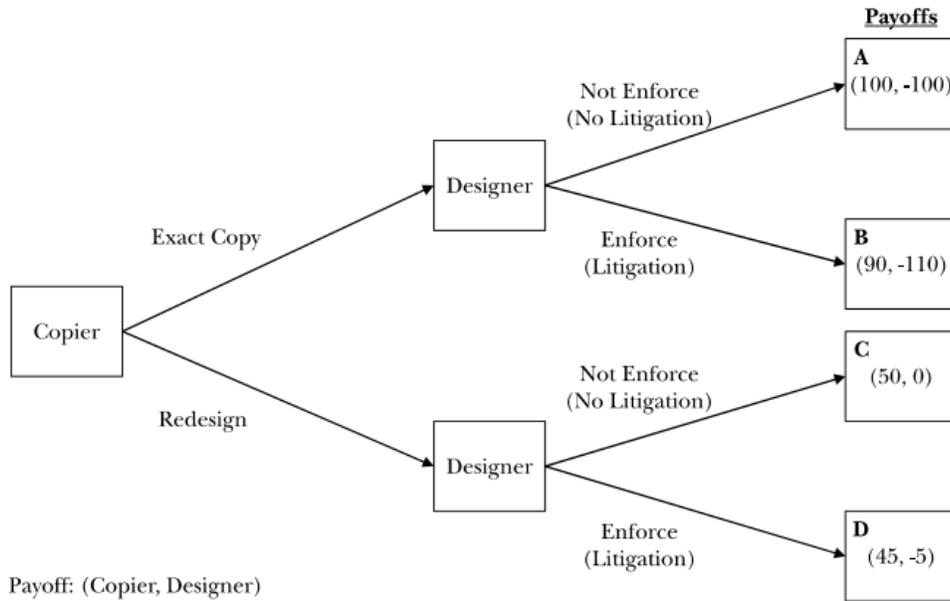
Fast fashion companies are able to cut research and development expenditures—both monetary and opportunity costs—by copying designs directly and quickly appropriating trends from luxury fashion. The supply chain is sped up exponentially by fast fashion firms so they are able to copy a garment straight from the runway and have

their version in stores before the original designer. The effects of this strategy are only recently being seen by the public; the withdrawal of luxury designers from the industry as a result of fast fashion competition will decrease overall innovation and research and development expenditures over time. When innovation decreases there will be fewer designs for fast fashion firms to copy or re-appropriate, and their business models will struggle to keep the current rate of production.

In a 2012 paper, Tedmond Wong, J.D., described the relationship between intellectual property enforcement and fast fashion design piracy. The article creates a game theory model using one fast fashion firm and one high fashion firm, as opposed to the game created in this study (Figure 4.3) which uses two fast fashion firms. Wong looks at the strategic decisions of the fast fashion firm and the luxury firm in economies with different levels of intellectual property protection. The basis of Wong's assumptions are that luxury and fast fashion goods are perfect substitutes when the fast fashion firm makes an exact copy, and that exact copies are worth more than adaptations (Wong 1168). In simplistic terms, Wong's reasoning is sound. However, as this study outlined, fast fashion and luxury goods are not perfect substitutes despite the effect they have on one and other. If fast fashion were a perfect substitute for luxury ready-to-wear then fast fashion would have competed luxury firms out of the market based on price.

Wong describes the current strategic decision model for a fast fashion firm when choosing to create an exact copy or to redesign. This model assumes that exact copies are more profitable and that there is no formal protection for the original design. The following figure is taken directly from Wong's paper to illustrate the effect of low intellectual property protection on a fast fashion firm's decision to directly copy or redesign and existing style.

Figure 2.3: Copying Decision—No Protection



Source: Wong 1167

As stated before, the author assumes that fast fashion copies are perfect substitutes for the original design (Wong 1168). Wong finds that in a situation where there is no copyright protection the copier is better off creating an exact copy because regardless of whether or not the designer sues they will earn the maximum profits from that style. If the designer does try to litigate they will merely incur costs for both sides. The only way that litigation is a deterrent to copy in this scenario would be an instance where the cost of going to court for the defendant is higher than the expected profits of the copied design. Ethics are largely ignored by the fast fashion segment regarding intellectual property; legality and ethicality are not one in the same. Firms in the fast fashion industry freely copy full designs and profit off the innovation of others. Until legislation is passed to prevent such copying, fast fashion firms will continue to directly copy at a rapid rate to increase profits.

Wong's model shows that, given limited intellectual property protection, fast fashion firms have a strong incentive to directly copy trends. Trends can be silhouettes, colors, patterns, hemlines, or genre-styles; fast fashion firms must decide which trends to copy. Some trends are easy to predict and copy. For example, the hemline index predicts that during difficult economic times hemlines are typically longer. In the 1930s hemlines lowered; in the 1980s the micro-mini became mainstream. Fast fashion firms observe runway shows and red-carpet events for trends, but there may be dozens, even hundreds, of trends in a given year. As stated before, fast fashion firms rely on trend anchoring for profit maximization; therefore, it is logical that firms would adopt as many trends as possible in order to minimize risk of missing a trend and maximize exposure for popular trends. This creates a collusive environment for fast fashion trend adoption; all firms have an incentive to adopt trends in order to increase supply and, thereby, quantity demanded. Considering the limited intellectual property protection in the United States and the conclusions drawn by Wong regarding design copying there is a clear incentive for firms to adopt as many trends as possible.

Figure 2.4: Trend Adoption Nash Equilibrium

		Firm A	
		Adopt	Do Not Adopt
Firm B	Adopt	** (10,10) **	(5,-10)
	Do Not Adopt	(-10, 5)	(-10,-10)

The game above shows the potential outcome associated with choosing trends to adopt for the upcoming production season. For simplicity sake, assume this is a two firm world where firms make decisions independent of each other, but have the same information about higher industry segments. Given that consumers prefer to buy market-saturating trends, if both firms adopt then they will both receive the highest possible payoffs (10, 10). If one firm decides to adopt but the other does not then the firm who did not adopt will have an opportunity cost of -10, while the firm who did adopt will have a gain from merchandise sold to customers who do not derive utility from trends. The payoff is lower if only one firm adopts because the trend will not “anchor” consumers who rely on trends to signal purchasing decisions. If neither firm adopts then both firms suffer the opportunity cost of not taking on the trend (-10, -10); the negative payoff represents the lost opportunity cost of adopting the trend and creating a profitable “anchored” trend.

Fast fashion firms understand that by overlooking trends they will lose out on profits. The fast fashion model helps to combat against these losses. Fast production speed, low production quantities of specific goods, but large quantities of slightly differentiated products, allows firms to offer a wide variety of trends. The low prices allow consumers to adopt multiple trends each season. This creates a cartel-like atmosphere; all firms produce the same trends and there is no benefit to breaking the trust because consumers desire market saturating trends. Zara, as shown in Figure 1.3, has no reason to skip a trend because they have a sophisticated supply chain which allows for mid-season feedback-based modifications. Firms easily predict that their competitors will also adopt as many trends as possible, which makes the product life cycle complete quickly and efficiently. From a profit standpoint, this is a perfect business model; it offers consumers seemingly endless choices to satisfy their unlimited desires. It also targets a younger market—the millennial market—who want to buy more and pay less so they can keep up with trends.

A study by the Intelligence Group on the consumer buying behavior of millennials found that the young generation is by far the most frugal. The study shows that millennials are more likely to do online research before making purchases (Suddath). The millennial generation was raised “in an expanding world of choice and options for just about everything they ever needed or wanted” (Spenner 1). This commentary by Katie Elfering, a consumer analyst at CEB Iconoclature, perfectly describes the success of the fast fashion model. The millennial generation wants everything, but they do not want to—or cannot afford to—buy expensive products.

Should society allow for blatant piracy in the name of a little more profit? Or should consumers demand that businesses be upfront and honest about the products they

sell? Is it ethical for society to turn a blind eye to knock-offs and counterfeit goods for the sake of new trends every few weeks? Where is the line drawn? People are already getting hurt by this system in factory collapses and sweatshop conditions. Perhaps intellectual property in this industry is about more than protecting designers; perhaps these laws need to exist to protect consumers, workers, and the reputation of business ethics in the fashion industry. The debate of intellectual property needs to be about more than just innovation; it needs to be about business ethics.

Under the current protection system, fast fashion firms gross enormous profits by cutting costs throughout the supply chain. As shown in the Wong decision tree and the trend adoption decision matrix, fast fashion firms have no reason to not directly copy a design. Firms, such as Forever 21, use this model successfully. Other firms, such as Zara, defy the Wong model by grossing large profits through a mix of design appropriation and branding. Regardless it is optimal for firms to incorporate numerous trends into their product mix.

Despite the unethical nature of design piracy, it is the foundation for fast fashion success; knock-off goods provide high payoffs. Reducing research and development expenditures allows fast fashion firms to lower the overall production cost. Knock-off products may be a draw for consumers and the basis of trend anchoring, however fast fashion firms must reduce costs further to entice consumers to maintain high purchasing volume. Limiting research and development costs is effective in lowering costs; fast fashion firms also cut costs in other unethical ways. Many fast fashion firms further reduce their input costs in other phases of the production process to lower costs and maximize profit margins further. Fast fashion firms maximize profits by cutting costs, regardless of ethics; exploitative cost cutting occurs later in the supply chain. Unethical

and exploitative practices in the design and manufacturing process allow fast fashion firms to move from the competitive fringe to potential profit giants.

Chapter Three: Manufacturing

The fashion industry exists in two very different spheres: the design side and manufacturing side. The world of fashion design is sparkly and glamorous; it is filled with creative people with eccentric personalities and amazing talent. Within that world there are talented seamstresses, patternmakers, lace-makers, and textile designers. The other end of the fashion spectrum is not nearly as glamorous. Clothing manufactures are not featured on the pages of Vogue, just as garment factory workers rarely enter the mind of Western consumers. Whereas couturiers are proud to show off their ateliers and skilled seamstresses, fast fashion manufacturers shroud their factories in secret. There is, of course, a middle ground, but that middle ground is shrinking over time as quality becomes more expensive and profit overshadows design.

Unstable factories, fire hazards, child labor, unpaid overtime, withheld wages, and long hours are just the beginning of controversial labor issues facing the fashion industry. A documentary crew found a factory in Honduras forcing women to take oral contraception and terminating any pregnancies in order to prevent women from missing work (*Zoned for Slavery*). Workers at that same factory told documentary makers that they were often not paid, forced to take home work or work overtime, and screamed at or fired without cause. Many factories do not provide labor contracts to workers which limits employee access to training, maternity leave, medical leave, pensions, safety equipment, and other benefits (Hobbs 7). The “race to the bottom” affects many countries, and the cycle is not completed yet. Essentially, the “race to the bottom” is the “progressive degeneration of standards or elimination of regulations (in a market, business, etc.) due to the pressures of competition” (OED: *Race to the Bottom*). Firms move production to developing economies in order to exploit large sources of cheap labor

and lax labor laws. Ethics violations and exploitative practices are highly apparent in cost-cutting practices in the manufacturing sector of the industry.

I. Manufacturing Process

There are numerous ways firms cut costs during the manufacturing stage of garment production. The garment manufacturing process ranges from simple to complex; making a t-shirt is unskilled work, while making couture takes years of training. The process begins with design, which can be an involved process or as simple as directly copying a design from another firm. The previous chapter examines how firms cut costs in the design process using unethical copying. This chapter analyzes cost-cutting in the next phase of the supply chain: manufacturing.

The two views of exploitation explored in this thesis are the “hard-times” definition and the neoclassical definition. The “hard-times” view applies to exploitation through inadequate safety investments. By this definition, workers are exploited as a result of poor working conditions, such as poor ventilation, improper safety gear, long hours, as well as low wages (Nardinelli 66). The “hard-times” view is used to describe child labor conditions during the Industrial Revolution. The greed of the upper and middle class leads to exploitation of vulnerable populations in this view of exploitation (Nardinelli 66). Wage exploitation is further explained through the neoclassical definition of exploitation. Neoclassical exploitation exists when wages are below the value of the marginal product of labor. Neoclassical exploitation, also referred to as economic exploitation, occurs under imperfect market conditions, such as monopsony labor markets (Nardinelli 68). The “hard-times” and neoclassical definitions of exploitation describe the conditions in current developing garment industries.

Not all cost-cutting measures in the manufacturing process result in exploitation of labor; many merely result in a lower quality or less embellished product. For example, removing linings and pockets or using fewer buttons may only save a few pennies in terms of materials, but it also saves time and limits the skill required from laborers. Shortening sleeves or hemlines and eliminating cuffs and collars conserves fabric, notions, and time (Burritt). When cotton prices go up, t-shirt manufacturers use a 5-ply instead of a 6-ply jersey or a cotton-blend in order to maintain their bottom line (Cardona). Gathering materials instead of using darts or pleats is another indication of cost cutting during technical design.

Technical design is the patternmaking and grading portion of the design process. Technical designers translate the creative designer's sketches and ideas into instructions and patterns for manufacturers to use. For fast fashion firms, technical designers replace creative designers; fast fashion technical designers create patterns based on the simplified designs of other firms. Technical designers create the Tech-Pack which the firm sends to manufacturers. Tech-Packs include production instructions, flat sketches, and notion instructions. Technical designers for fast fashion firms are experts at finding places to cut costs during the design process (*Made in Bangladesh*). In some cases, especially in the fast fashion market, manufacturers employ technical designers to create basic styles that their firm can quickly produce. Firms, such as Forever 21, will choose from the styles designed by the manufacturer in order to further cut costs (Hobson, Young). Cutting costs in this stage of the production cycle is not exploitative, nor is it unethical when fast fashion firms employ these techniques because consumers expect garments to wear out as fast as trends change. Unethical design practices, as expressed in the previous chapter, come from replicating designs in order to increase profits through consumer anchoring.

Simplifying clothing design for mass market sale allows firms to use unskilled factory labor and assembly lines to streamline the production process. Instead of a seamstress creating whole garments, a garment factory worker spends an entire day sewing thousands of sleeves or pockets. The work is monotonous and simple, especially when working with stretch fabrics that do not require special finishing techniques or structural darts (Cline 183-184). The limited training required to work in assembly line garment factories allows firms to hire the lowest cost labor.

This chapter focuses on two areas of the supply chain where firms cut costs through exploitation. The first is through working conditions; reducing or eliminating investments in safety precautions, such as face masks, fire extinguishers, and properly built factories, contributes to higher profits over all. Inadequate safety investment is exploitation under the “hard-times” definition. The second is through low wages; paying less than a living wage also allows firms to increase profit margins. A living wage, according to the Worker’s Rights Consortium, a living wage should provide a family with “food and water, housing and energy, clothing, health care, transportation, education and childcare, as well as modest funds for savings and discretionary spending” (WRC 1). The minimum wage rarely reflects the living wage. In many garment producing nations, such as Cambodia and Bangladesh, the minimum wage is dramatically different than the living wage, which allows for firms to easily exploit workers. In both cases, the use of contractors and subcontractors allows the firm to reduce their risk of negligence or fault in case of catastrophe.

i. Supply Chain

Most firms in the fashion industry have complex supply chains. These chains can cross borders and language barriers. Much is lost in translation, and it is difficult and

expensive to monitor production from across the globe. Contracting production or licensing a brand name requires the proprietor to give up a level of control in order to increase profits. Supply chains in the fashion industry can be very complicated or very simple, depending on the type of firm and product offerings.

Figure 3.1: Basic Supply Chain

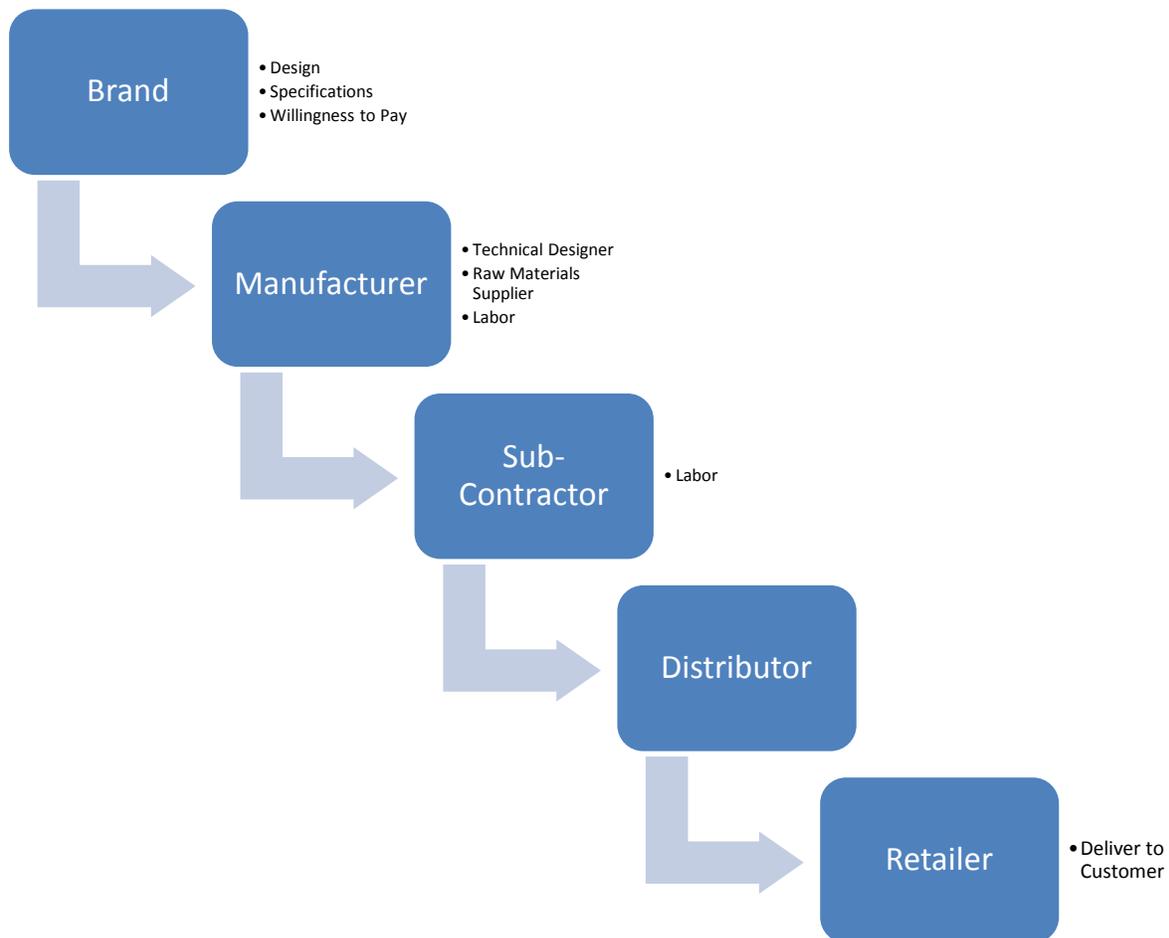


Figure 3.1 outlines a basic garment manufacturing supply chain.³ The process begins with the firm at the design level. Within the manufacturing stages there is room for firms to make strategic decisions based on their needs and priorities. For example, a

³ Based on reported industry supply chains (Inditex, VF Corp, Gap Inc., etc) and the Oxfam supply chain model (*Better Jobs in Better Supply Chains*)

firm chooses whether or not to manufacture in-house or through a contractor. If a firm chooses to use third-party contractors they loosen control in the production process, especially when outsourcing to another continent where it is challenging to monitor laborers, cleanliness, and production practices. Third-party manufacturers in developing economies understand local labor laws and how to cut costs efficiently in those areas.

Marketing value is as important as logistics and cost-cutting when choosing a manufacturer. Some firms use origin of manufacturing as a value-added technique. American consumers often value merchandise made in Italy or France due to the historical tradition of technical sophistication and quality in their garment and leather industries. Some firms take advantage of this perceived value without using the higher priced labor and production practices. In Italy, Chinese firms open facilities to capitalize on the “Made in Italy” brand while utilizing Chinese workers, equipment, and management. For example, in the Tuscan town of Prato, which is famous for luxury textile production, there are now over four thousand Chinese owned factories employing workers for approximately three euros an hour (D. Thomas). This is a deception technique firms use to add value or minimize costs in the supply chain.

Hiding labels is another tool used to deceive customers about product origin. Ghost labeling allows luxury firms to produce clothes in lower cost manufacturing countries, such as China, without their customers knowing. Ghost labels are small, clear plastic labels marked with the country of origin. The labels rip or fall off garments very easily, unlike embroidered fabric labels. Firms place ghost labels underneath the size, brand, or care labels. Printing black text on black fabric or hiding labels in pockets or on the back of brand labels are also techniques used to hide labels. Some firms will go as far as to produce a majority of the product in China, but finish production in Europe or the

US to earn the more prestigious label (D. Thomas). Deceptive labeling and production origin techniques apply towards luxury industries where consumers value artisanal craftsmanship and company heritage; the fast fashion industry customer is less likely to inspect a garment for a production label.

Fast fashion firms require complex supply chains in order to maintain large quantities of rapidly changing merchandise. As a result, fast fashion firms contract with manufacturers, suppliers, and logistical companies around the world so they can move product quickly and cheaply. For example, clothing produced for Zara in Spain travel from the manufacturer to the distribution center using an underground electric rail system. Fast fashion firms rely on efficient supply chains in order to keep daily or weekly shipments available to every retail location. In order to maintain this standard, a complex global supply chain with many layers and contractors is necessary.

There are fast fashion firms which attempt to make supply chain information available to investors and consumers. For example, Zara's parent company, Inditex, boasts its transparent supply chain. Its website features details of where contractors are located and the company breaks down manufacturers into four classes. Class A facilities are completely compliant with safety and fair labor standards. Class B facilities "fail to comply with a non-material aspect" of the Code of Conduct (Inditex). Class C firms breach a "sensitive aspect" of the Code (Inditex). Non-material and sensitive aspects are not defined by the company in the Code of Conduct or on the supply chain portion of the website. The last class was referred to as Class D, however for marketing reasons the name changed to Corrective Action category; these are firms which must make regulative changes in order to stay a part of the Inditex supply chain.

Despite Inditex's claims of social responsibility and transparency, there are obvious flaws in their ranking system and questionable gray areas in their Code of Conduct. The Inditex interactive supply chain map boasts that 91% of contract manufacturers are in the A or B class. A significant portion of those firms are in the B class, meaning that they are in violation of at least one of the fifteen sections of the Code of Conduct, which includes five pages of brief violation descriptions. The violations in the code range from no child labor to documented employment; it is unclear which of the fifteen sections is considered to be "non-material." No metrics are provided for determining the scope of non-compliance. Over half of the factories used in non-EU Europe and Asia have some level of violations. Approximately 220 factories used by Inditex have C or Corrective Action rankings. In other words, Inditex supports business relationships with over two hundred firms which are guilty of one or more of the following charges: child labor, forced labor, discrimination, harsh or inhumane treatment, unsafe or unhygienic conditions, unpaid wages, excessive working hours, untraceable production, unsafe products, environmental hazards, banning collective bargaining and freedom of association, and not adhering to local labor laws. The volume of production within these 220 factories is not clear nor is the scope of violations at these specific firms. Additionally, there appear to be no incentives to improve for A, B, and C ranked firms. It is also unclear whether or not firms with corrective action ratings are allowed to produce products for the company during their six to twenty-four month correctional period.

Both internal and external auditors are used to audit for safety and fair-labor compliance. Third-party auditing is notoriously untrustworthy in countries like Bangladesh and Pakistan due to bribery (Mansoor). Internal audits are also unreliable as it is not in the firm's best interest to report issues that may lead to higher production

costs. Given that fast fashion firms benefit from lowering costs of production it is not rational to report violations; only firms who gain utility from worker safety, or customer perceived worker safety, have an incentive to honestly assess contractors in terms of worker rights. Firms do have incentive to audit firms for hazards that may cause product loss; such as fire hazards, structural defects, or squalid conditions. The optimal point for reporting dangerous conditions is where the marginal cost and marginal benefit of risk-prevention intersect. Internal auditors have a higher incentive to calculate that risk because it is in their own best interest. External auditors subject to bribery would only report if the incentive to report is higher than the value of the bribe and the probability of getting caught.

The documentary *Made in Bangladesh* illuminated the flimsy nature of corporate credibility in regards to supply chain disclosure. For example, Walmart claims that it stopped working with a number of factories in Dhaka after inspections found them unsafe. When reporters traced an order form, however, they found that a large order of blouses for Walmart Canada came from a banned factory (*Made in Bangladesh*). Walmart corporate and the factory owner denied that the blouses were produced in the dilapidated factory; however, employees at the firm confirmed they made the blouses. Tracing a garment from a fast fashion company is nearly impossible; hidden paper trails and illegal subcontracting hide the truth behind a garments origin.

The rapid demand cycle is the root of the issue in Bangladeshi factories, according to factory owners (*Made in Bangladesh*). Firms demand products to be produced faster and faster. Manufacturers take on every order to maintain good relationships with large businesses; it is not in the best interest of the manufacturer to turn away any orders. When contractors cannot keep up with demand they illegally

subcontract work to other firms without the permission of the business (*Made in Bangladesh*). Unapproved subcontractors typically offer the worst possible labor conditions. The increase in consumer demand from fast fashion results in higher demand for factories. Firms, as a result, construct factories quickly and with little regard for safety and proper permits and engineering. The need to open and operate rapidly leads to exploitation.

The nature of fast fashion's rapid product cycles results in an atypical competition model. Due to the nature of rapid product turnover in the garment industry first movers do not have an advantage in the supply chain. It is thought that the first to enter the market, get the intellectual property rights, and create contracts with suppliers and manufacturers will have the absolute advantage and always be more profitable even after the price finds market equilibrium. Given the limited intellectual property rights and the vast quantity of suppliers and manufacturers this principle does not apply to garments.

Fast fashion firms may be followers in regards to innovation: however, they are market leaders in terms of sales. Fashion is not a race to see who can create popular ideas first; it is a race to see who can deliver those ideas to store shelves first. The "race to the bottom" allows fast fashion firms to deliver trends quickly and inexpensively to stores long before traditional retailers. Succeeding in stocking trends first, and at the lowest cost, translates to high profit margins for major fast fashion firms. *Bloomberg* ranks the most profitable companies around the world by region; in the retail sector all but one of the clothing companies listed were fast fashion retailers. Inditex, TJX, H&M, Fast Retailing Co, and Gap Inc. took the top spots. LVMH, the luxury conglomerate, ranked lower than these firms, but still had a high ranking among retailing firms. However, LVMH represents significantly more brands across more markets than the other groups

listed. Inditex, for example, owns eight brands and grossed about ten billion dollars in profits last year (Bloomberg). LVMH, on the other hand, grossed less than twenty billion dollars with almost ten times as many brands. Apparel design companies were considered with separate comparative metrics by the study. Cutting costs throughout the supply chain allows these firms to be profit leaders. When firms take quality and ethics out of the equation they can act far faster and lower costs significantly.

The profitability of fast fashion firms is not surprising. Georg Simmel, a German sociologist who published a study on the fashion industry at the turn of the 20th century, explained that “the more an article becomes subject to rapid changes of fashion, the greater the demand for cheap products of its kind” (Cline 115). When consumers expect rapid changes in popular styles they will be less inclined to spend more on a single item; quality does not matter when the article becomes obsolete in a matter of months. Fast fashion firms understand this concept and their business model creates a financially viable competitive fringe; a competitive fringe which some firms are breaking away from and competing directly with larger industry segments. A strong model of low costs and similarly low prices led to this shift away from a purely competitive market. In order to provide low cost, non-durable, competitive garments fast fashion firms discount ethics to discount final prices. Exploitation is a fundamental cost-cutting practice for fast fashion firms.

II. Exploitative & Unethical Cost Cutting

i. Low Safety Investments

There are a number of life-threatening dangers in garment factories. Inadequate safety investments and training leads to deaths and injuries every year. Factory fires,

hazardous chemicals, antiquated machinery without safety guards, and poor ventilation cause death, injury, or illness among workers. Additionally, unstable or incomplete factories are all too common in nations with booming garment industries; when demand is too fast, manufacturers begin producing without proper permits or inspections. Factory hazards are extremely common; in Bangladesh alone, the Fire and Building Safety Accord uncovered of 80,000 hazards in the eleven hundred factories they inspected (Oldenziel).

Without proper protective gear workers risk contracting life-threatening diseases from factory conditions and processes. Garment workers need proper skin protection and gloves to ward against a number of factory hazards. Factories use hazardous chemicals to treat or distress fabrics. Many of these chemicals, such as formaldehyde and potassium dichromate, are carcinogens (Hesperian 40). Other common chemicals cause skin irritation and rashes. Garments are also treated with chemicals in an anti-bacterial wash; while most of the chemicals wash out, silver does not and is a known poison (Hesperian 41). Face masks are another important safety measure in factories; breathing in dust and fibers causes long term lung damage (Hesperian 44). Providing gloves and face masks lower the risks for worker injury and illness, but it is an expense some manufacturers are unwilling to take on because workers are replaceable.

Workers are also at risk of losing their lives in factory fires. Just over one hundred years ago the Triangle Shirtwaist Factory fire shook the American public and the garment industry. Americans demanded to know how such a tragedy could occur; nearly 150 people were killed and the public demanded change. As a result, garment unions formed and formalized American production standards. The introduction of a union led to higher cost in the forms of wages and capital expenses and slowly but surely the American

garment industry began to price itself out of the market. As technology progressed it became easier and cheaper to produce in foreign countries with less rigid labor and production laws. By the 1990s the fashion industry was booming and hardly resembled the industry of fifty years prior. The industry is no safer now than it was then; instead, deadly fires now occur far from American shores and command less attention from Western consumers. In 2012 a factory fire killed over one hundred people in Bangladesh (Dudley, Devnath). Managers locked workers inside the building and iron bars covered the windows. People jumped from air vents to escape the building. The owners of the factory are in custody for culpable homicide—not murder—and have yet to be tried (Manik, Barry). This is merely one of many examples of preventable factory fires in the garment industry. Deadly factory fires are almost always preventable; however, inspectors often find fire extinguishers missing, unclean work spaces, and blocked or locked fire exits (Varley 67; Williams). Flammable chemicals, faulty electric wiring, overheated machinery, and improper ventilation all increase chances of fire, and many times attempting to escape a fire is deadly for workers due to trampling (Manik, Yardley).

Structural deficiencies are also a concern in garment factories. Investing in properly engineered buildings is expensive. Building owners closed Rana Plaza the day before the collapse due to uncertainty about the stability of the building. The next morning thousands of employees woke up and went to work in fear. Workers feared that the factory was unsafe; however, employers threatened to fire absent workers. In a country where 35% of the population is living at or below the poverty line, one cannot afford to lose his or her job. A survivor recounts her fear that day as the management team left the building shortly after production began; they knew it was unsafe, but they left thousands

to die (*Made in Bangladesh*). Government officials and corporate executives were aware of the danger but production continued. Negligence does not begin to describe such a crime, yet that is what the seventeen Rana Plaza executive are accused of. First person accounts from the documentary *Made in Bangladesh* demonstrate that garment factories in Bangladesh run on a basis of fear. Owners emotionally and physically abuse underpaid workers because they know that the employees have no other option to make a living through any means possible.

Children working in garment factories are, in particular, affected by the hazards of the garment industry. The garment and textiles industries have exploited child labor in factories since the Industrial Revolution. Children are small, quick, cheap, and obedient; they are ideal for repetitive tasks or detailed work which requires strong eyesight and quick fingers like beading or embroidery. Although international and domestic labor laws outlaw children from working under a certain age or for extended hours, these laws are often ignored or unenforced. Garment factories in Bangladesh, Honduras, Pakistan, and many other countries are extremely dangerous for working children. Structural collapses, fires, fiber inhalation, and abusive employers are just a few of the harmful factors which working children must live with. Children are also paid significantly less than the already low minimum wages (Aulakh). Child labor is illegal in almost all countries, so children working in garment and textile factories either hide during inspections or work in the worst of “underground” facilities.

Child labor in garment factories first came under scrutiny during the British Industrial Revolution. An infamous story of child mistreatment is told in *Children of Other Worlds: Exploitation in the Global Markets* by Jeremy Seabrook, a British writer famous for his works regarding social injustices. The story literally describes a boy who

is worked to death in the factories; he worked a seventeen hour day, was beaten for falling asleep while working, and promptly dropped dead from exhaustion the very next day (Seabrook 7). A century later, much of the world still uses children as cheap labor. Working in dangerous garment factories can affect a child for his or her life. Working children typically do not receive proper education; the garment factory is a life sentence for many children in developing countries. In February of 2014 an undercover British film crew found children as young as thirteen working “up to eleven hour days in appalling conditions” in the Vase Apparel factory (Brignall, Butler). Hidden cameras caught managers abusing young female workers for not working quickly enough and padlocking fire doors to prevent unauthorized breaks (Brignall, Butler). Despite the increased awareness and pressure from some consumers and firms to improve conditions, there are still factories using corporeal punishment and ignoring demands for reform.

The harms associated with working in garment factories are preventable. Therefore, by not investing in safety measures, or paying workers enough so they may invest in their own safety equipment, firms are exploiting labor under the “hard-times” definition. The “hard-times” view of exploitation is a holistic view of exploitation, which includes the working conditions. Workers in modern garment factories are exploited because they do not have the power to bargain for safety reform, and do not have the economic power to move to firms with less risky environments. This manner of exploitation allows fast fashion firms and their contractors to cut short-run and long-run costs in safety investments and, therefore, this form of exploitation can be expected to continue unless regulations are established to prevent it.

Corporations do not have any legal responsibility for the people who work for their contractors. Before the Rana Plaza collapse, Walmart, whose products are linked to

a number of fires and factory collapses, denied that it had any responsibility towards factory safety for contracted work (Dudley, Devnath). Retailers discussed imposing requirements that firms pay contractors enough to provide safe factories conditions. A third-party labor activist group, The Worker's Rights Consortium, determined that it would cost less than ten cents per garment, or 3 billion dollars over five years, to renovate dangerous Bangladeshi factories to meet American manufacturing standards (Hobson). Walmart, whose gross income that year was over 106 billion dollars, and other retailers including Sears and Gap cited that regulating the factories was too expensive (Foxvog, Nova). Over a thousand lives were lost, in the Rana Plaza collapse and a number of factory fires, as a result of that decision (Foxvog, Nova). Corporations have the power to improve working conditions in factories; by setting penalties for violating ethics standards higher than the cost of safety investments, corporations can encourage their supply chain to change. Firms who contract with manufacturers in Bangladesh feign innocence with claims that they were unaware of conditions (*Made in Bangladesh*). It is these firms—companies who have never been legally held responsible for thousands of deaths—who profit off the goods produced in these horrifying conditions. Ten cents per garment may not seem like much, but finding a willing party to take on higher expenses is unrealistic in the current market. Consumers seek low prices and firms rely on maximum profit margins. Manufacturers stay competitive by offering the lowest costs to firms and making up for discounts by paying labor as little as possible and not investing in safety.

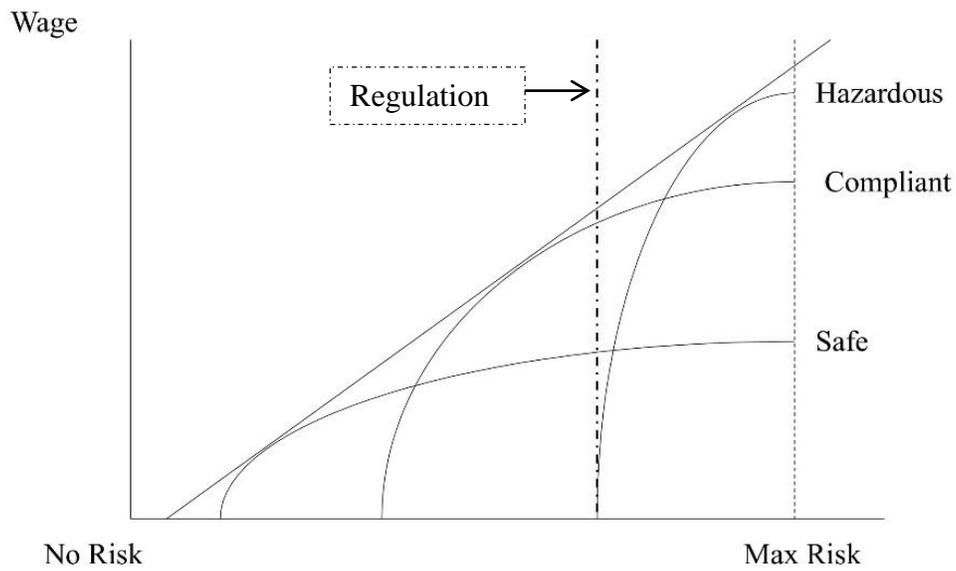
Firms are not willing to pay for safety investments in their contract facilities because profit is far more important than ethics. In the documentary *Made in Bangladesh* Sujeet Sennik, former designer for Walmart Canada, described the reaction of Walmart

corporate executives after the Rana Plaza factory collapse. After the collapse, Sennik sat in a meeting where he learned that Walmart contracted with Rana Plaza; the meeting focused on how Walmart could make up their margins after the loss of inventory. Not once in the meeting, he reports, did anyone bring up the eleven hundred people who lost their lives for the sake of cheap clothing (*Made in Bangladesh*). Fast fashion companies are interested in the bottom line; loss of product and potential negative press are the main concern when tragedies occur.

Typically workplaces with dangerous conditions must offer compensating wage differentials in order to entice laborers to take on additional risks. Compensating differentials allow firms who do not wish to invest in safety to hire workers who are willing to take on extra risk for higher wages. The isoprofit curves represent the risk/wage tradeoffs where firms will gross the same profits; essentially the firms are competing for workers based on the wages and safety levels they are able to offer. Theoretically, firms who do not offer safety investments should pay higher wages than firms with fewer risks, given that workers understand the risk associated with the job.

The wage rate for American factory workers should be significantly lower because there is much less risk, holding the cost of living and exchange rates constant. The dotted line represents the point where, if governments regulate industries, firms must reform or shut down. Firms operating at risk levels higher on the hedonic wage function than the regulatory line will shut down because the opportunity cost of regulating is too high. The model does not hold true across global cut and sew manufacturers due the structure of labor markets in developing garment industries, such as Bangladesh.

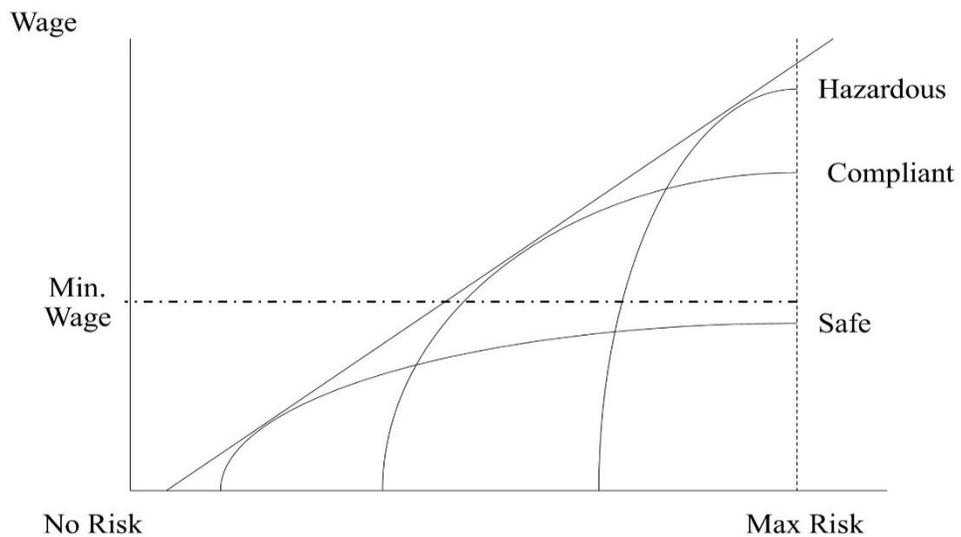
Figure 3.2: Compensating Differential Model



Source: Borjas 228

Safety regulations are not the only form of intervention which affects the compensating differential model. The implementation of national minimum wage laws also effects labor markets where a compensating differential holds true.

Figure 3.3: Compensating Differential (Minimum Wage)



When a minimum wage is implemented and enforced the safest firm will shut down and workers will move to firms with higher risks. In this model there is an arbitrary placement of the minimum wage level. Actual policy would affect whether or not firms would exit the market. In a market where there are safety regulations and a minimum wage the safest and least safe firms would likely shutdown because they are unable to regulate or raise wages while remaining competitive. Minimum wage is unlikely to affect garment manufacturers because the industry defies the compensating differential model.

The compensating differential model does not apply to countries with high poverty and limited labor mobility. Workers in Bangladesh may prefer safer factories, but they do not have the resources to relocate to safer factories or countries with regulated industry. Employers recognize that there are limited opportunities for employment, and workers would rather work in dangerous factories than turn to prostitution, trash picking, or stealing. The garment factories at least offer a semi-predictable paycheck. Workers take dangerous jobs because there are no alternatives; factory owners have no incentive to make factories safer or pay a wage differential because there is a large labor supply and no enforced government regulations.

Government regulation also affects the compensating differential model (Figure 3.2). While government regulation is extremely unreliable in Bangladesh and other developing nations, the US and other developed countries offer stricter safety regulations in manufacturing industries. In the United States dangerous industries are regulated by the government. Employees can choose where to work based on their preference for wages and risk, assuming that employees have perfect knowledge of the potential harm. When the government regulates an industry noncompliant firms will shut down and workers will move to a less risky firm for a lower wage and lower utility.

The compensating differential model does not hold true when examining the Bangladeshi garment industry on its own. Factories with safer facilities and better non-monetary benefits (sick time, daycare, safety masks etc.) pay higher wages. For example, Barry Laxer, a Canadian citizen, owns two factories in Bangladesh. He originally produced clothing in Canada, but when the “race to the bottom” began his customers began to flock to cheaper contractors. Instead of allowing his business to fail, Laxer relocated his facility to Bangladesh. His factories pay three times the local minimum wage and offer protective gear, an up to code factory building, and other amenities for employees; he kept his original customers and is producing at a lower price without exploiting labor (*Made in Bangladesh*). On the other extreme, the so called “fly by the night” factories which employ children and offer the worst conditions pay very little, sometimes less than minimum wage. The compensating differential theory does not hold true under such market conditions because workers do not have freedom to move from firm to firm in the market. Limited employment opportunities but a large, impoverished work force and few government protections or regulations leave workers vulnerable to exploitation.

Minimum wage laws would likely only affect firms operating with wages at the minimum wage. “Fly-by-the-night” factories are a part of the underground economy and do not follow wage laws; they will continue to exploit labor regardless of wage laws. Safe, regulated factories typically pay an efficiency wage above the minimum wage in order to retain loyal, productive employees. Firms paying the minimum wage may be effected depending on the magnitude of the change.

The factory collapse in Dhaka is merely the capstone in years of factory fires and hazardous conditions. Accounts of employees being burned to death or jumping from air

vents three stories above ground are everywhere in Bangladesh and other south Asian garment counties (*Made in Bangladesh*). Although the owner and engineers of Rana Plaza are now in prison, there are still factories with inhumane conditions. In fact it is estimated by the Bangladeshi government that ninety percent of factories do not meet local or global safety standards (Blair 2). The efforts made to protect workers are shrouded in bureaucracy and underfunded.

International law does not provide an answer as to who is responsible to ensure worker safety in contract factories. David Birnbaum, the founder of a leading consulting firm for the apparel industry, responded to the ongoing discussion on production with these statements: “To the suppliers, customers are a bunch of extortionists who care only about FOB price. To the academics, suppliers are a bunch of exploiters who, unless policed 24 hours a day, will invariably employ 10-year-old children, 70 hours per week, in slave-labor conditions, just to earn a few extra cents profit” (Hertzman 1). Both parties may be entirely correct, but that fact leads to the question: who is responsible for changing their behavior and the overall behavior of the industry? Regardless of the answer, it is evident that firms are reaping monetary benefits from exploitation. The effect of underinvestment in safety is quite evident as a result of the Rana Plaza collapse and the multitude of deadly fires throughout the industry. Fast fashion firms work with contractors who provide the lowest input prices for manufactured garments in order to maximize profits while still offering incredibly low prices. Paying wages far below the living wage threshold is another cost-cutting measure utilized in the manufacturing industry. Neoclassical, or economic, exploitation is also used by fast fashion firms to minimize costs and maximize profits.

ii. *Low Wages*

By the neoclassical and “hard-times” definitions, workers in developing garment industries are exploited through inadequate wages. While the Rana Plaza incident is an example of gross underfunding for safety, it also brought worker wages to the attention of the Western media. Suddenly the world saw the barred windows, the locked doors, and the buildings with questionable permits and structural defects (Hobson 317). It also brought to light the squalid living conditions of garment factory workers and how inadequate the minimum wage in Dhaka is. Yet the issue seemed to be forgotten by consumers before the final death count was announced. Eleven hundred people were killed in the collapse and an additional twenty-five hundred were injured (*Made in Bangladesh*). Family members, limbs, and the ability to work were lost to thousands. An event like this, the second deadliest building collapse only after the Twin Towers, should have inspired outstanding change (Del Mastro 1). This is not the case.

Over a year after the collapse the relief fund created for the victims of Rana Plaza is finally issuing payments to the survivors and families of the deceased. The fund originally estimated that forty millions dollars would be necessary to compensate the victims appropriately; firms who contracted out of Rana Plaza were urged to donate, but government organizations did not hold those companies liable. The fund brought in less than half the stated goal: 15 million dollars. Eleven-hundred people were killed, twenty-five hundred were injured, that implies thirty-six hundred families require compensation (Smith). The fund announced that each family would receive 50,000 BDT (645.50 USD) and may be eligible to receive more if they prove they deserve more. Six hundred dollars is a significant amount of money for a garment factory worker in Bangladesh; it is six months to a year’s worth of wages (*Made in Bangladesh*). However, if 3600 payments of

645.50 dollars were paid that would only account for about 2.3 million of the 15 million dollars available. There are plans to give further aid to families of deceased victims and to permanently disabled victims, however there is currently no publicized date for when these transactions will occur.

Value of life calculations provide a framework to explore the scope of wage exploitation. In a report by CNN ten years after the 9-11 terrorist attack the reporter commented on the outrage over tying compensation of victims to their salaries. While some families received 250,000 dollars others received upwards of 7 million, depending on the salary of the deceased (Smith). The system is criticized as inaccurate and inhuman; how can one person's life be valued so much higher than another's? Yet the world is not up in arms over the proposed compensation for victim's families in Dhaka is only DTK 29 lakh, which is only equal to about 37,000 USD (Mirdha). This is not by any means a commentary on the September 11th tragedy; it is merely being used as an example to prove the underwhelming response of the global community after the Rana Plaza collapse as well as the overall gap between US and Bangladeshi standards of living. The victims of a factory fire in Pakistan on September 11, 2012 are still awaiting any amount of payment (*Two Years After*). Many factory fires go unreported, and those victims and their families will never receive compensation (Burke). How can the value of life be so dramatically different for two human beings who were both killed as a result of someone else's actions? Even when factoring cost of living into calculations, there is still a large disproportion of wages between wages in developing and developed nations.

Value of life calculations based on potential lifetime earnings statistics further illustrate the dramatic wealth gap in the world. Perhaps 37,000 USD is an accurate representation of what a garment worker makes over a lifetime however it does not

represent a living wage. A living wage is enough to provide for the basic needs of a worker and their family; these basic needs include housing, food, clothing, healthcare, education and possibly enough for small savings (WRC 1). Workers in Bangladeshi garment factories earning the minimum wage, or less, do not earn a living wage; this is clearly illustrated through worker narratives and investigations into worker homes and family education (*Made in Bangladesh*). Economic exploitation occurs when workers are not paid a living wage as a result of an imperfect labor market.

There is a dramatic difference between wages in the United States and Bangladesh, even after adjusting for cost of living. According to a study by the Social Security Administration, the average annual salary in the United States is \$44,321.67. The Bureau of Labor Statistics reported that the average annual salary in the US for a cut and sew apparel manufacturing worker is \$21,960; there are approximately 151,800 laborers in this profession in the United States. According to the Institute for Global Labour and Human Rights, a worker doing the same job in Rana Plaza worked approximately one hundred hours a week at twelve to twenty-four cents per hour; in one year junior and senior sewers earned about \$500-700. The average monthly wage for garment workers across Bangladesh is thirty-five dollars per month (Ahmed, Lakhani). While the average garment worker in the United States is only making half the average American annual salary, (s)he is still making about thirty times what a comparable worker in Bangladesh earns. Taking cost of living into account, both salaries would be difficult to survive on, however the typical safety conditions in Bangladeshi factories cause even more of a gap, according to the compensating differential model.

Table 3.1: Country Comparison as of 10/2014 (in USD)			
	Bangladesh	Cambodia	United States
<i>Garment Worker Min. Wage/month</i>	67	100 ⁴	1830
<i># employed</i>	4,000,000	400,000	151,800
<i>Value of Industry</i>	24,000,000,000	5,000,000,000	7,000,000,000
<i>Living Wage Estimate/ month</i>	200	390	1,900
<i>Actual Wage/Living Wage</i>	33.50%	25.64%	96.32%
Comparison to US			
<i>Cost of living comparison to US</i>	10.53%	20.53%	
<i>nominal wage comparison to US</i>	3.66%	5.46%	
<i>actual wage comparison to US</i>	34.78%	26.67%	
<i>% of value paid to employees</i>	1.12%	0.80%	3.97%
Sources:			
Bahree, Megha. "Wage Wars Unravel Stitches Of Cambodia's \$5B Garment Sector." <i>Forbes</i> . Forbes Magazine, 27 Aug. 2014. Web. 20 Oct. 2014.			
Guzi, Martin, and Paulien Osse. "Estimating Living Wage Globally." <i>Estimating Living Wage Globally - 65 Countries (2013): Living Wage Indicator</i> . Wage Indicator Foundation, Nov. 2013. Web. 20 Oct. 2014.			
"Living Wage Calculation for New York City." <i>Living Wage Calculator</i> . MIT, 2014. Web. 20 Oct. 2014.			
Paul, Ruma. "Bangladesh Garment Workers Demanding Wages Clash with Police." <i>Reuters</i> . Reuters, 5 Aug. 2014. Web. 20 Oct. 2014.			
"Pressers, Textile, Garment, and Related Materials." <i>US Bureau of Labor Statistics</i> . United States. Bureau of Labor Statistics, May 2013. Web. 6 Oct. 2014.			

⁴ The current national minimum wage is the equivalent of 100 USD per month; on November 12th, 2014 the Cambodian government passed a bill to raise the minimum wage by 28% after January 1st, 2015. The new minimum wage will still be about two-thirds of the estimated living wage (Figure 3.3).

Table 3.1 illustrates, in real terms, the difference in wages for comparable cut-and-sew apparel manufacturing workers in the United States, Cambodia, and Bangladesh. These figures reflect data of average, documented workers. Therefore, it is important to consider that illegal child laborers, “underground” sweatshop workers, and withheld wages are not calculated in the monthly wage and number of workers statistics. The purpose of this table is to illustrate, in real terms, how little workers in developing countries earn. Table 3.1 also shows that a living wage in Cambodia and Bangladesh is still a small fraction of the US garment worker wage.

When adjusted for cost of living, Bangladeshi and Cambodian garment workers make between sixty-five and seventy-five percent less than American workers doing the same jobs, in real terms. Despite the dramatic difference in living expenses, shown in the cost of living comparison, the minimum wages in Bangladesh and Cambodia are still a small fraction of US garment worker wage. In both Cambodia and Bangladesh the minimum wage is significantly lower than the living wage. Table 3.1 compares living and actual wages to US wages in order to prove exploitation is occurring in terms of wage. The Cambodian and Bangladeshi wages are calculated based on the garment worker minimum wages converted to USD with the November 2014 exchange rate. The American wage comes from data collected by the US Bureau of Labor Statistics.

Using a nominal wage comparison skews reality; however a real wage comparison shows the extent of wage exploitation. The table shows the actual wage comparison, which represent the percent of Bangladeshi and Cambodian wages relative to American wages. In order to calculate these statistics, the nominal wage is divided by the cost of living comparison—which measures the value of a dollar in each country—and that coefficient is divided by the American wage. Thus, we find that a worker in

Bangladesh makes roughly thirty-five percent of what an American earns; Cambodian workers make just over a quarter of the actual American wage.

The final statistic presented in the table is the percentage of industry value that goes towards wages. In all three countries the percentage is relatively low, but more so in Cambodia and Bangladesh. The United States percentage is likely inaccurate as the range in salary among US garment workers is vast. While the typical cut-and-sew line worker makes the salary reported by the BLS there are also a number of tailors and artisanal clothing makers that are factored in to the overall value of the apparel production industry. Laborers receive an extremely small percentage of the final selling price of a garment. Since this study focuses on capitalist and not Marxist theory, this does not necessarily prove exploitation, but it is a strong indication that firms receive significant profits which are not distributed to workers or safety investments. Economic exploitation occurs when wages are less than the value of marginal product of labor. A study by a consulting firm, O'Rourke Group Partners, found that workers in Bangladesh make less than two percent of the selling price for each shirt they sew (E. Sherman). Such a statistic provides strong evidence that workers are paid far less than the marginal product of their labor and are, therefore, exploited under the neoclassical definition of exploitation.

It is significant to note that exploitative manufacturing plants in developing countries are not the only option for firms. *Overdressed: the Shockingly High Cost of Cheap Fashion* (2012) is a popular non-fiction book which examines the manufacturing industry in America, Bangladesh, and China. Upon its release the book received praise for its investigative look at the manufacturing industry by the *New York Times*, the *Financial Times*, *Business Week*, and the *Wall Street Journal*. The author, Elizabeth Cline holds a degree from Syracuse in Political Philosophy; she is an investigative journalist for

The Nation, *The New Yorker*, and *New York Magazine* and an average consumer who realized how out of control her own buying habits were, due to the availability of fast fashion. She begins her journey through the manufacturing world in the New York City garment district. Although clothing manufacturing is often considered an unskilled job, there is an art to creating an exceptional garment. In the NYC garment district, like in the couture ateliers in Paris, there are still manufacturers who pay for talented seamstresses and tailors to make quality products.

Cline found that garment manufacturing workers earn “between 30,000 and 100,000 [dollars] a year plus benefits, depending on their skill and experience” (38). She met Michael DiPalma, the factory manager of Dalma Dress. DiPalma is a perfectionist who will happily hand-sew a zipper out on the floor with the rest of the workers (39). His factory, which his father opened, has shrunk over the years as clients fled to foreign manufacturers. His current customers can expect the highest quality imaginable, but also a high price tag (40). The higher price tag, in this instance, guarantees that clothing is patterned and made by talented, skilled workers in a clean and safe environment.

There is another benefit for firms who use American contractors for manufacturing. It is much easier to monitor a local supply chain than a global supply chain. Communicating with the factory and checking up on production processes is easier when the factory is only a few miles down the road or a few states away. Anastasia Chatzka, for example, is very proud of the fact that she can walk into the local factory with which she contracts and check up on her samples; the women who sew her clothes even invite her to do calisthenics with them in the morning when they get their first break.

Of course, American manufacturing is not perfect. Just because something is made in America does not mean that the manufacturer uses ethical labor practices. Exploitative sweatshops are still found in the United States; undocumented immigrants are often the victims of these firms (Freeman). The documentary “Made in LA” follows the lives of women working in a California sweatshop. The conditions they work in and the injustices against them are similar to those of a Bangladeshi garment worker. “Country of origin does not necessarily impact quality, but it enormously impacts production costs,” and, as a result, the perceived value of a garment (Cline, 74). There are still firms in the United States which pay piece rates with high quotas and do not pay minimum wage to those who fall short, as the law requires (Cline, 46). Such a practice increases the gap between wage and the value of marginal product of labor because labor is more valuable due to the value-added nature of American-Made garments. The US Department of Labor recently discovered three million dollars in unpaid wages owed to workers in L.A. garment factories (Carnevali, Kay). There are, however, still American manufacturers who treat sewing as a skilled job.

Unlike in the United States, low wages are the norm in Cambodian factories. Despite the reportedly low unemployment rate (about 2%) in Cambodia, employers still have an advantage over employees. A majority of the labor force works in the informal sector (Kea). Many factory workers support their extended family in rural communities as well as themselves. Factories understand the vulnerable situation that many workers are in and take advantage of the limited formal employment options. “The factories don't care about us. They pay us so little, work us so hard and throw us away when we cannot work for a moment,” said Khmom, a factory worker who was fired for taking time off to

care for her child (Campbell). The factory system, for many women, is their only legal option for employment and employers exploit their power as sole providers of jobs.

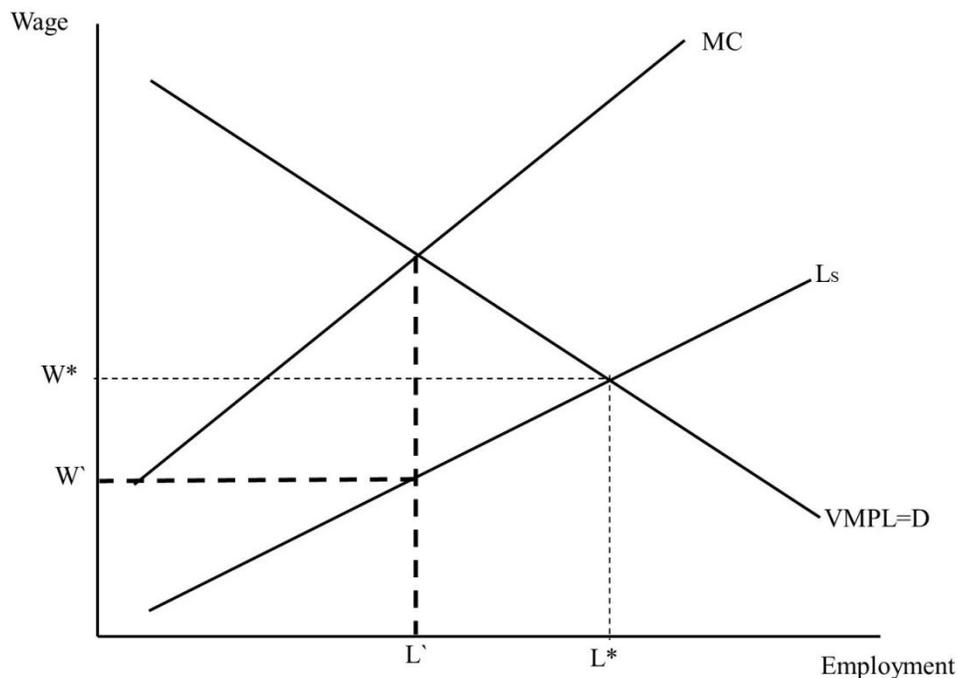
Many factory workers come from rural farm towns or are “rehabilitated” prostitutes; the alternative to leaving the factories is starvation or illegal trade (Campbell; *The High Cost of Cheap Clothes*). In fact, rehabilitated prostitutes in Cambodia must work in factory jobs that pay less and, in some cases, have worse conditions, or risk staying in jail where they will be abused by authorities (*The High Cost of Cheap Clothes*). The Cambodian garment industry is located entirely in one major city; the cost of living within in the city is significantly higher than in the country, but wages do not reflect the higher demand. There are extremely limited job opportunities in rural Cambodia, so workers must stay in the major city. High living expenses make it difficult for workers to provide their families with nutritious meals. Garment work is not a choice for many of the women in Cambodian factories.

Labor markets with these characteristics are typically monopsony structures. A traditional monopsony occurs when one firm controls the entire labor demand; thereby employing the full labor supply and restricting the bargaining power of workers. Monopsony structure results in dead weight loss and employment levels and wages that are less than optimal in a perfectly competitive labor market. Monopsony markets also result in exploitation because firms set wages below the value of marginal product of labor. The traditional monopsony example describes an isolated community where one firm controls every source of employment, such as a rural, 19th century mining town. Within these towns, families work for the mine and are paid in currency which works only at the “company store.” Labor mobility is limited and barriers to entry prevent new

firms from opening in a near proximity; as a result, the monopsonist holds more power than the labor supply and dead weight loss occurs.

In a monopsony, labor supply and marginal cost are separate curves; the monopsonist must raise all wages in order to hire additional labor, which means that the “labor supply curve no longer gives the marginal cost of hiring” (Borjas 200-201). The marginal cost of hiring one additional worker is higher than the labor supply curve because the firm must increase all wages in order to increase employment. The average cost of employing workers increases with each additional hire; as a result, the marginal cost of extra workers is even higher because it is assumed that existing workers of equal quality are paid the same as the new worker. The monopolist sets employment where marginal cost is equal to marginal revenue. Wage is set below equilibrium. Firms do not have to pay an equilibrium wage because they have greater market power than workers.

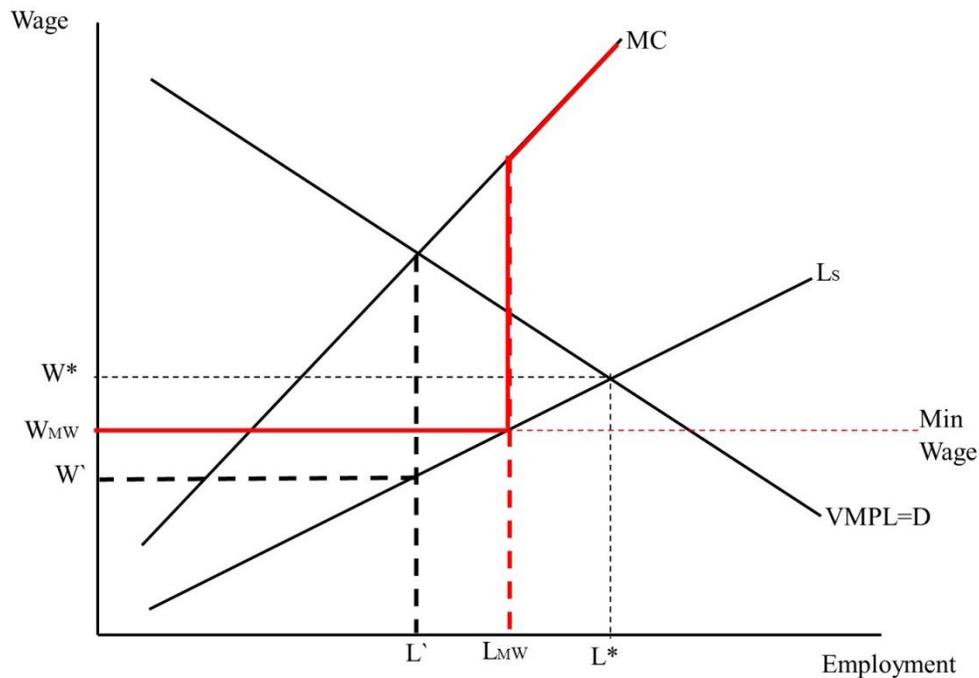
Figure 3.4: Monopsony Labor Market



Source: Borjas 202

Figure 3.4 represents an unregulated monopsony labor market. Regulating a market by implementing and enforcing a national minimum wage can reduce the dead weight loss caused by monopsony power. A minimum wage can increase employment and increase wages. The magnitude of the effect depends on the minimum wage. Figure 3.5 illustrates the effect of a minimum wage on a monopsony labor market.

Figure 3.5: Monopsony with Minimum Wage



Source: Borjas 203, Manning 90

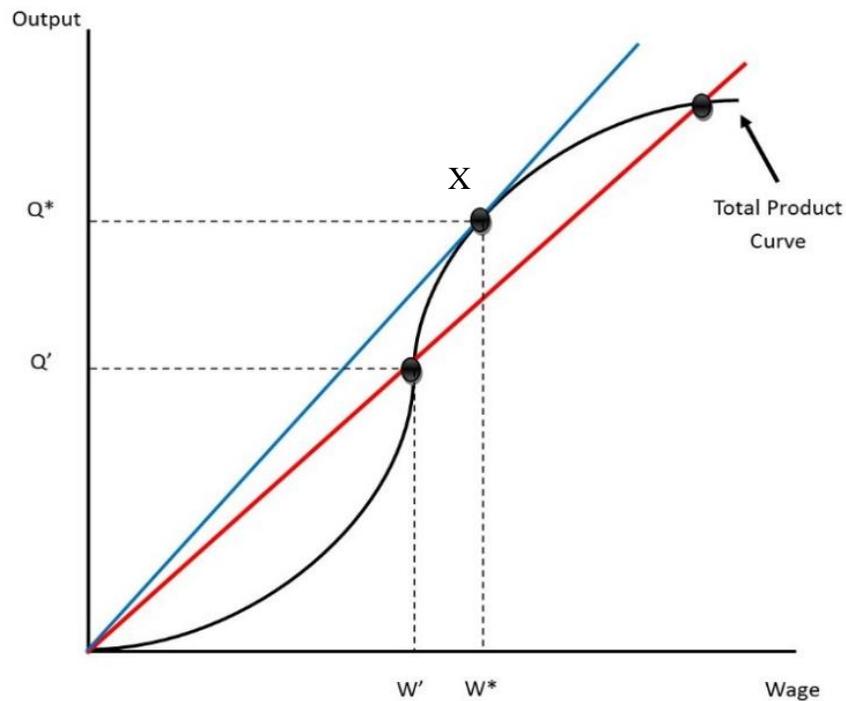
A government enforced national minimum wage can have a positive effect on wages and employment in a monopsony model (Borjas 202). Employers, in this circumstance, pay the minimum wage of W_{MW} , which is higher than W , but is still below the equilibrium wage. There is still dead weight loss because the wage and employment levels are below equilibrium (W^*, L^*). There is, however, less dead weight loss than before the minimum wage went into effect.

Use of national minimum wage legislation has the potential to set market wages at the living wage rate; this is not currently the case in many nations with large garment industries, including Cambodia. Malnutrition and poor living conditions are common for Bangladeshi garment workers (Gerin). A living wage should provide enough for shelter, nourishment, healthcare, education, and small savings. In conjunction with increased productivity from efficiency wages there may be a positive result due to an increase in industry size; this is, of course, speculative, but may be an interesting case study for further research.

In August, Cambodian garment workers went on strike in an attempt to decrease the gap between the minimum wage and the living wage. Uncharacteristically, some fast fashion companies including H&M, Zara, and Primark—whom are all suspected or proven to contract with exploitative factories—are in favor of the higher wages. This shift in priorities implies there is a value for these firms to increase worker wages and, thereby, their own prices. In a letter to the Cambodian government, the three retailers expressed that they are willing to pay more to suppliers in order to give workers a living wage (Thesing). Of course, firms have an incentive to encourage a higher national minimum wage instead of insisting their contractors pay more; when the minimum wage increases the input cost increases for all firms, which keeps the playing field level. In order to make up for the increase in production costs firms say they will raise their prices; they believe that there will be an increase in productivity among workers due to higher wages, which is help balance out the increased cost of labor.

Raising wages in order to increase productivity in developing economies is referred to as an efficiency wage. Liebenstein and Mazumdar first explained this theory, the nutritionally based efficiency wage, in the late 1950s. This theory asserts that workers in developing countries should be paid enough that they can feed themselves and their families; if workers are well fed then they will work harder and be more efficient. Cambodia would certainly benefit from a nutritionally based efficiency wage. There are high malnutrition rates among Cambodia garment workers as a result of low wages and the high cost of living within a garment manufacturing city (McMullen 2). Union leaders report mass-fainting from malnourishment among workers. In theory, the efficiency wage is set at the point where the marginal productivity of labor is equal to the additional cost of labor.

Figure 3.6: Optimal Efficiency Wage Model



Source: Borjas 474

Figure 3.6 illustrates the optimal point at which firms should set wages in order to achieve worker's highest optimum MP_L which is equal to the average product of the given wage (Borjas 474). The marginal product of labor is derived from the slope of the total product curve, the average product is the slope of the line from the origin, and the maximizing point is where the two curves intersect. Figure 3.5 illustrates the tradeoff between output (Q) and wages (W). Firms should set wages at the point where they receive the highest marginal output of labor. Point X represents the optimal efficiency wage equilibrium of Q^* and W^* . At this point the marginal product of wage is equal to the average product of wage; this is the point where firms maximize profits. If firms set wages at W' , then productivity would be significantly lower. Therefore, firms should, in theory, always set the maximized efficiency wage in order to receive the highest output from labor.

There is debate as to whether or not efficiency wages are effective enough to be worth the added cost. Efficiency wages should, in theory, increase productivity and reduce workforce turnover. A case study by Oxfam applied efficiency wages to a factory in Bangladesh. The study worked with New Look and its supplier Echo Sourcing (Hobbs 8). The project aimed to maximize employee value by improving conditions, providing incentives, reducing hours, and raising wages. The study found that after three years the workforce is more content and there is much lower staff turnover. The study does not provide metrics for whether or not the marginal product of labor increased after the improvements. A different study by Oxfam did find that productivity and wages have a positive relationship in Bangladeshi garment factories (Hobbs 8). The increase in wages provided a twenty to sixty-one percent increase in productivity and a substantial decrease in absenteeism and labor turnover from a 12-42 cent daily raise. (Hobbs 8). These studies

provide some evidence that efficiency wages may benefit workers and firms in garment factories; further studies with more detailed metrics are necessary to provide an optimal wage and profit incentive for corporations.

Developing countries tend to have large populations of unemployed, underemployed, or informally employed persons. If the labor supply is greater than labor demand, given that training costs are low for unskilled factory jobs, then a company can turnover its work force when they are unproductive, in absence of binding labor contracts. In these situations workers are expendable and efficiency wages are not a requirement to supply a workforce. When there is a willing work force and little to no government regulation firms can treat employees as they choose. In both Bangladesh and Cambodia wages are significantly lower than the living wage. While these industries are not true monopsonies, as there is more than one firm offering employment, they do behave as such due to the difference in power between employers and workers. Employers block unions from forming and fail to provide long term contracts, which limits the legal power of workers. Additionally, employment outside the garment industry is typically informal and dangerous. Women in many garment production capitals must either work in the factories, work as prostitutes, or starve (*The High Cost of Cheap Clothes*). These labor markets offer the perfect environment for fast fashion firms to cut costs in their supply chain through low wages as the alternative sources of labor are far less attractive.

Claims of exploitation in the manufacturing sector of the fast fashion industry are well supported by examples of underinvestment in safety and real wage comparisons. Bangladesh and Cambodia are not the only countries effected by the “race to the bottom,” they are merely the most prevalent in the media presently. There are countless worker

narratives, such as Meem's, which illustrate the exploitative conditions under which much of Western clothing is produced. Fast fashion firms and their contractors exploit labor by both the neoclassical and "hard-times" definitions. Many countries feel the effects of global demand for unimaginably cheap garments. Despite the media attention to these unethical practices, fast fashion firms continue to profit from the work of vulnerable populations.

Conclusion and Recommendations

“What I did, what my colleagues did—it doesn't exist anymore,” Valentino remarked in an interview with Harper's Bazaar regarding the changes in the fashion industry (Fisher 1). The fast fashion business model poses a threat to each industry segment. The use of strategic production decisions, enhanced design, and low input costs allows fast fashion firms to effectively compete with luxury and traditional commercial retailers. Profit-seeking companies pursue the lowest cost methods of production, according to accepted capitalist economic theory. Certainly this has been witnessed in the recent decades of the fashion industry as the industry adjusts to changes in the global marketplace. Companies within the fast fashion segment often choose to use less ethical and more exploitative practices in order to achieve this goal. Successful fast fashion firms gross multi-million dollar annual profits by providing low-cost, trend-based clothing to the global market. In order to maintain a competitive edge and create the largest profit margins, fast fashion firms cut costs in every step of the supply chain. In some cases, these cost-cutting practices are unethical or exploitative.

The current market setting is optimal for the fast fashion model. Consumers want more for less; rapid trend overturn turns consumer preference from quality to quantity. Legal structures also allow fast fashion firms to flourish. Lack of intellectual property protection in the fashion industry allows fast fashion firms to directly steal designs and profit despite minimal research and development investment. Additionally, there is no global authority which can prosecute crimes based on a strict international law; as a result it is difficult to prosecute foreign firms for design theft, and equally difficult to hold multi-national corporations liable for labor exploitation. The legality of design piracy, however, does not justify the unethical nature of direct design copying.

Economic theories provide a strong basis with which to support the argument that certain manufacturing practices—including insufficient safety investments and low wages—are exploitative. Neoclassical, or economic, exploitation occurs under imperfect labor market conditions. These conditions are observed in developing economies with growing garment industries. The monopsony labor markets which exist in developing economies give firms more power than workers; despite minimum wage laws, workers are still paid below the established living wage threshold. Moreover, firms do not have adequate incentives to invest in worker safety, which furthers the prevalence of “hard-times” exploitation. Despite the economic viability of the fast fashion model, it is irresponsible to turn a blind eye to the exploitation occurring in order to fuel this model.

The fast fashion business model relies on low prices in the supply chain. If any number of regulatory actions take place it may have a dramatic effect on these corporation’s bottom lines. Changes in domestic or international intellectual property policy, minimum wage laws, government-mandated safety reform, or consumer boycott have the potential to weaken the fast fashion industry. It is improbable to assume that all of these reforms may come to pass on a global scale; however, small changes will force fast fashion firms to adjust their business models. Firms in the fast fashion industry must be prepared for these changes if they wish to remain viable with their current business model.

Fashion industry specific copyright law would have a large impact on fast fashion firms which rely on direct copying in the design process. The current copyright system does not adequately fit the industry, due to the rapid nature of product turnover. Fast fashion firms may directly copy designs and at most pay a settlement to avoid court cost. Creating a specified copyright law, similar to architectural protection, is necessary to

protect design integrity and entice new creative designers to enter the market. The current case law system results in out of court settlements due to the asymmetric nature of information; limited precedence offers little guidance for designers unsure of their rights. Optimal length of protection must be established by industry and intellectual property experts; additionally, filing must be easy and quick given the nature of immediate design theft.

There may be negative ramifications to criminalizing design theft. Fast fashion firms rely on cost cutting in the design phase of production to limit research and development costs. If firms are forced to spend money on research and development as well as due diligence they may look to cut costs in other areas of the supply chain. However, as shown in the Wong model (Figure 2.3), if fast fashion firms cannot copy designs directly they will lose a significant percent of profits. As a result, firms may move headquarters to countries without intellectual property restrictions in order to get around American laws. Global intellectual property rights offer limited protection and enforcement. Firms may also hide behind supply chains to avoid infringement penalties; firms who order styles directly from manufacturer look books are not liable for design theft because their firm did not design the physical garment. The verdict in the Revolaze patent suit may help to determine the role of the parent company and contract manufacturers in intellectual property suits.

Growing global concerns over garment worker safety and wages presents an immediate threat for fast fashion profits. Enforcing strict labor laws, requiring supply chain disclosure and transparency, and educating consumers on ethical concerns threatens the bottom line for many fast fashion firms. There are a number of initiatives forming to

address the issues in garment factories. Protecting the right to collective bargaining, labor contracts, and basic human rights is the foundation for change in the garment industry.

Consumer awareness campaigns, such as the *Labour behind the Label*, *Clean Clothes Project* and the *Fair Wear Foundation* attempt to target corporate exploitation through consumers. Consumer boycott is potentially effective, however it requires responsible firms, NGOs, and opinion leaders to educate consumers and lead large scale movements. Demanding supply chain transparency and boycotting unethical firms can have an impact on business practices. Making ethical buying easy for consumers may have an effect on where consumers buy clothing; if consumer campaigns find a way to clearly define which companies use ethical practices and which do not they may have an impact on corporate decisions.

The growth of online purchasing presents an opportunity for NGOs to make responsible purchasing information accessible. Using technology and social media to effectively speak the language of millennial consumers is the key to leading an effective consumer campaign. The millennial generation is also the social media generation; this generation is more likely to take on a social issue if they can publicly endorse it using the internet. Technological innovation, such as phone apps which allow consumers to easily view supply chain information for firms, can also induce millennial consumers to put more thought into their purchases. Educating consumers is an important aspect in the fight against unethical consumption. In an informal survey of 390 consumers, over 75% of respondents agreed that they would be willing to pay more for clothing produced using responsible labor practices (Lambert). Many consumers likely do not understand how small the additional cost per garment is in order to provide proper safety investments in

garment factories. Fast fashion, however, relies on low profit margins and high volume of sales; a ten cent profit cut may have a dramatic effect on profitability.

Government intervention is necessary to eliminate wage exploitation. If national minimum wages increase in garment-producing countries, firms will either have to adjust prices, change vendors, or rely on manufacturers to raise quotas. Raising minimum wages and requiring formal contracts for all workers is the first step to reform. Even in monopsony markets, national minimum wages have the power to reduce dead weight loss; governments need to set minimum wages at a level which corresponds to living wage requirements. The living wages for developing nations are still significantly lower than developed economy minimum wages; firms would still have an incentive to keep jobs in developing nations. Fast fashion firms may cut costs in other areas of the supply chain to make up for these losses. National minimum wages level the playing field for firms; if input costs increase for all firms then firms benefit from the marketing benefit of ethical production without risking losing customers due to comparatively higher prices.

In some cases, corporations can use manufacturing regulation to their advantage. Firms are voluntarily supporting third party groups which aim to make Bangladeshi factories safer. The most recent attempts to regulate the manufacturing industry are a reaction of the Rana Plaza collapse. Two groups, the *Alliance for Bangladesh Worker Safety* and the *Accord on Fire and Building Safety in Bangladesh*, are third party advocates and watch dogs. Designers and firms have signed on with one or both groups and publicly patted themselves on the back for their effect. Only twenty six firms belong to the *Alliance*; there are approximately 180 members in the *Accord*. The groups only inspect facilities publicly contracted by the member firms. The *Alliance*, for example, inspected fewer than six hundred of the five thousand garment factories in Dhaka. Firms

with whom manufacturers may illegally subcontract are not a part of the survey group. Of the factories inspected, the *Alliance* condemned five, 98% lacked fire sprinkler systems, and over 95% lacked proper fire doors (“Bangladesh Alliance”). The *Accord* recommended that many of the inspected factories shut down to complete renovations due to structural deficiencies. Workers, who are already underpaid, worry that if their factories close they will not have any source of income and will not be able to survive; factory owners worry about the effect on profits and client relationships (Thomasson). Factories are unsure where affordable loans will come from (Saini). There are currently no plans for compensating workers whose factories shut down temporarily or permanently, or a large scale solution for funding building loans.

There are a number of rational economic motivators behind corporate reform in supply chains. Incidents, such as Rana Plaza, cause product loss; fast fashion firms rely on rapid production, which is slowed by factory fires or collapses. Publicizing efforts to reform exploitative conditions potentially adds value to a firm in the public eye; marketing sustainable and ethical products is important to a segment of the consumer market. Increased productivity from workers is another advantage for firms. Regulating manufacturing does not have to be a selfless profit-loss; there are ways firms may utilize worker safety to their advantage.

If corporations want to reform their supply chains they must set penalties for unethical contractor behavior higher than the cost of regulation. If contract firms believe that they will lose more money when found negligent they will reform violations on their own. Firms need access to clearly defined ethical violations in order to create compliant factories; vague guidelines and penalties are not enough to induce change. Manufacturers also need access to loans in order to properly invest in safety. Fashion companies and

their contractors must make business decisions with long term benefits. Short term thinking led to the Rana Plaza factory collapse; reacting to demand too quickly leads to careless errors. Short term profits are not worth deadly, reputation shattering catastrophes. Short product turnover is not an excuse for short term planning.

The results of reform in Bangladesh are both good and bad for workers. While some manufacturers agree to regulate and even increase wages there are still fast fashion firms unwilling to take on higher input prices. Many powerful firms are not taking a part in safety reforms, such as Forever 21. Some firms, concerned about the growing controversies in Bangladesh, are switching their orders to plants in Myanmar or other less regulated countries (“Door to Myanmar”). It is a concern that firms will relocate production in order to continue the “race to the bottom.” There are still many nations in Africa and Asia without the proper government regulations to prevent the hazards of low-cost garment manufacturing.

It is possible for regulation to have a negative effect on low-cost garment manufacturing markets; higher prices may drive away firms, however historical evidence shows that countries do not collapse entirely when garment unions are introduced. Firms which maintain their competitive advantage after regulation will survive, while other firms will enter a new industry or find a new way to remain competitive. Creating a situation where continuing the “race to the bottom” is not an option will help mitigate the impact of regulating existing developing economies involved with garment production. Emphasizing education reform and child labor laws must also be a priority in order to bring a country out of the development phase.

The resurgence of American garments and textile production is also an important factor to consider in future research. A number of firms are attempting to move

production back to the United States in order to capitalize on the current demand for firms to create American jobs. Making clothing in America presents a marketing opportunity for US based firms. Logistics costs may also affect the attractiveness of reforming supply chains to support domestic manufacturing. Creating consumer value through production location may prove a threat to certain market segments. The average fast fashion consumer may not gain utility from local production, but it may affect consumers who move between luxury and fast fashion markets.

Garment industry reform cannot happen overnight. Many workers need the income from sweatshop jobs in order to survive. Fast fashion firms have the opportunity to pioneer a new future for the fashion industry. There must be an infrastructure to provide for the previously exploited workers. If demand for disposable clothing remains high than labor demand should not shift dramatically. Studies on raising the minimum wage support this theory in many cases; in some cases increasing minimum wages leads to higher employment (Neuman). Paying a living wage may also increase worker productivity, which helps a firm's bottom line. Firms may also cut costs in other areas of the production process to make up for higher labor costs; if consumers still consider clothing disposable than they can continue to cut costs in quality.

Fast fashion is a viable business model, under current market conditions. It provides consumers with the quantity and quality of products which they currently demand. A number of fast fashion firms are exceptionally profitable due to strategic supply chains and feedback loops. Strategic business decisions are the strongest asset of the fast fashion system. However, making profit through exploitation and unethical practices should not be encouraged in the global marketplace. Fast fashion firms must find new ways to cut costs and maximize profits, or they risk losing their competitive

edge based on small market and government changes. Luxury or commercial firms may be able to use fast fashion's poor reputation to their advantage; encouraging supply chain transparency to create a consumer value on corporate responsibility could change the way companies operate and consumers view clothing.

The global fashion industry is in a transitional period while fast fashion firms find their place in the industry. Fast fashion firms are highly global and rely on strategic international supply chains. Multinational corporations should be held responsible for behaving ethically in the countries they work in. Without legal obligation to behave ethically, fast fashion companies have little to no incentive to alter behavior. Changes in the global or domestic legal structure or changes in consumer value of ethics will have to occur to induce changes in the fast fashion business model.

There are number of research topics for further research that would enhance the findings of this study. Current changes within the industry may prove consequential to the aforementioned conclusions. New technologies and business practices may have an effect on the industry structure and supply chains.

E-Commerce models also change the way consumers and corporations interact in the fashion industry. Online shopping is presenting new challenges for retailers. New fashion firms are launching online stores which "cut out the middle man" in order to lower costs. New technologies are being developed in order to allow customers to virtually try on clothing before they buy it online. The effect of e-commerce on production and buying behavior, especially considering the characteristics of the Millennial Generation and Generation Z, may dramatically change the fashion industry.

New technology presents opportunities and threats to the current production process. 3D printing and other technological advances may change the textile and

garment manufacturing industries forever. Tech firms are working to create 3D printing technology which can create environmentally friendly man-made fibers for clothing. In the years to come, much of textile production may turn from a dangerous, unskilled job to a new field of engineering. 3D printing may also, in the long run, provide a cheaper alternative to traditional production methods. The global impact of this technology will be interesting to observe. Certainly, making production more sophisticated will force manufacturing countries to invest in education in order to maintain or increase GDP.

There are numerous environmental concerns regarding production and disposal of garments. Growing cotton requires a great deal of water and also requires the use of many harmful pesticides. Man-made fibers also release potential toxins into the air. Some dyes and chemical treatments are also harmful for water supplies, the Earth, and humans. Millions of pounds of textiles fill landfills each year; this problem will only get worse if fast fashion continues to flourish. The effect of clothing on the environment may be devastating if current consumer buying habits persist.

Ethics violation in the textile industry are a further concern in the clothing supply chain. The textile industry presents many of the same concerns as the garment industry. Child labor, low wages, long hours, and inadequate safety investments are also prevalent in textile production. In order to fully “clean-up” the fashion industry the textile manufacturing industry must also reform.

Finally, observing labor unions in the garment industry is important to determine the sustainability of a socially responsible manufacturing industry. Mapping the effects of labor unions in the garment and textile industry may provide important guidance for developing economies with labor exploitation problems. Establishing the effects on wages and employment levels in non-US countries before and after unions become

commonplace may prove compelling. Additionally, tracking unions to observe whether or not corruption affects unions in developing economies is also important for the future of the garment industry.

The fashion industry is challenged by a number of ethical issues. The future of the industry is uncertain given the rapid changes which are shifting the entire industry in a new direction. Advances in technology and increases in legislature and consumer activism may impact the unethical and exploitative nature of the fast fashion industry in the long run, and, thereby, change the fashion industry once again. Currently, however, fast fashion continues to increase profit potential for firms that adopt those practices. The fast fashion business model relies on unethical and exploitative cost-cutting in order to maximize profits. Without external intervention it is unlikely that firms in the fast fashion segment will reform their unethical practices.

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