# **FASHION INDUSTRY SUPPLY CHAIN**

Analyzing the Issues Affecting Small Fashion Designers



An Interactive Qualifying Project

submitted to the Faculty of

## WORCESTER POLYTECHNIC INSTITUTE

in partial fulfilment of the requirements for the

degree of Bachelor of Science

by

**Robert Rinearson** 

July 29, 2019

Report Submitted to:

Professor Izabela Stroe, Worcester Polytechnic Institute

## ABSTRACT

Most people take into account the appearance of the garments that they purchase, as appearance is important to them. However, the garment market is dominated by lower quality, ready-to-wear garments and the plight of smaller fashion designers offering more expensive, higher quality garments is rarely considered. An analysis of the textile supply chain and the responses of fashion designers is done to unearth the specific problems the designers face that pushes them out of the garment market. When working with suppliers for garment materials, designers on average reported their suppliers as mediocre. Textile suppliers have difficulty producing small amounts of high-quality materials for small, exclusive designers. Designers stated that their struggles with their suppliers related to the quality and quantity of their suppliers' products. Small designers being able to gain bargaining power by unionizing would allow them to request the quality that they prefer, while also allowing the supplier to maintain their current business model.

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## INTRODUCTION

The textile industry in the US has progressively become less personalized and more industrialized. Fashion designers find themselves with a large barrier of entry to begin their fashion labels. Working with large wholesale suppliers disenfranchises potential artists from entering the industry. In the modern day where technology has made ease of use the norm, the textile industry has remained relatively untouched by this technology.

The purpose of this project is to pinpoint the issues that fashion designers face and search for potential solutions to the problem. In the case of fashion designers, canvas their experience with their supplier to find trends, and in the case of suppliers, analyze their current business model to see where the issues stem from. Both perspectives allow for a more educated solution to be recommended.

## BACKGROUND

William Rinearson aspired to be a fashion designer. However, very soon after his first steps to become one, he encountered the many of the difficulties of working in the fashion 'manufacturing' world as a small designer.

Fashion used to be an art that was personalized to the particular person buying the garment, tailors played a much larger role as everything needed to be fitted. But since then the industry has become less personalized, more industrialized. The standardization of fashion has pushed out the individual tailor for factories to churn out lower quality, high volume products.

The textile industry suppliers have shifted to a wholesale business model due to the large corporations that now sell pre-sized clothing en-mass. These corporations require fast turnover time and large quantities at cheap prices from the textile suppliers. This combination comes at the price of quality. Much research has been done to try and remedy the faltering quality of textiles in the modern era, but the conditions that these manufacturers run their facilities lends no hand in helping it. Machines are run at their maximum capacity, at their maximum speed to ensure high volume at a low price for their large customers. Running at maximum speed causes flaws in the textile yarn and fabrics. In many cases, raw materials are kept in sub-optimal conditions that cause deterioration of the substance. For instance, a humidity level of 55-60% must be maintained in order to keep cotton in an ideal environment that leads to fewer flaws in the final product. Cotton itself is rated based on many properties that determines it's quality, such as how long the individual fibers are, what the air permeability of a fiber is, and others such as whiteness. The cost of the raw material and the electricity to run their machines are the two dominant costs when it comes to processing cotton. The raw material is spun into yarns. Yarn can be spun at varying fineness'. The fineness of a yarn is guantified in terms of 'Counts'. For instance, a yarn with a count of 20 is finer than a yarn with a count of 10. However, the finer yarn is spun, the longer it takes to produce. As an example, a yarn spinning machine making 10 count yarn would make 355 pounds per hour, while only producing 44 pounds per hour of 40 count yarn. In this case, making a thicker yarn allows a manufacturer to make 8 times as much product. The inverse relationship to fineness and quantity forces many manufacturers to produce

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yarn with lower counts in order to produce the volume needed by their customers. Neps, loose ends of knotted fibers protruding from the yarn, produced by overworking yarn machines causes roughness in the fabric it is woven into, as well as a shorter longevity of the fabric. Fabric that is woven at maximum speed is woven with weaves that ensure maximum production, not maximum comfort. In the textile supply manufacturing industry, quality is a cascading issue from the very beginning of the process. Not only does the mass production of products cause the products to be lower quality, but it also causes a substantial amount of waste and pollution in the production of, and the disposal of low quality garments by the consumer. Small designers prefer using high quality materials in order to establish their niche market that is saturated with low quality ready-to-wear garments. Small designers struggle entering the market because of the difficulty in obtaining low lot, high quality materials to make their clothing.

## METHODOLOGY

Objectives were designed in order to study the underlying problems facing the fashion designers:

- 1. Determine the most important factors that fashion designers look for in their suppliers.
- 2. Determine whether or not the problems they face are the supplier's responsibility.
- Understanding the particular dynamic that causes these problems and determine a proper solution to solve them.

We completed objective one by collecting data from the fashion designers. The data was collected through the use of a survey. The survey was distributed with the use of online web forums and emails to particular fashion designers in order to reach the widest scope. The survey outlined common issues that had been raised by a few designers and focused on expanding on those problems. Survey questions started broad and began to focus more in order to pinpoint the particular problems these designers face.

Objective two was solved by analyzing the status of a supplier and the methods in which the textiles are created. Deeper research into the machinations of the textile business shed light on the objectives of the seller, and where they could deviate from the buyer's desires.

The final objective was completed by overlaying the concerns of both the designer and the manufacturer. The analysis of both sides was done in order to identify the possible common ground and search for solutions to the problems plaguing the designers.

## FINDINGS

We analyzed the data, and a common trend immerged.

1. Most designers viewed their suppliers as mediocre and not performing spectacularly in general. The fashion designer's opinion toward their suppliers

across many different attributes varies, but the overall trend leads to manufacturers underperforming in the eyes of their buyers.

- Suppliers struggle with producing small lot sizes at high quality for exclusive designers. The modern business model of the textile industry leads to a struggle to service small designers in a certain way.
- Major complaints of designers related to the quality and quantity their suppliers were delivering. Designers are interested in the quality of their final product and the best way to achieve that goal.

A look at the data demonstrates these conclusions.



#### Figure 1: Fashion designers rate their suppliers

Fashion designers rated that their experience was average, some above some below. This could be due to the difficulty of dealing with large corporations as an independent designer. The following question asks designers to rate their supplier's punctuality. Most designers rated the supplier's punctuality at or above average.



This suggests that most designers receive their materials on time.

Figure 2: Fashion designers rate their supplier's punctuality.

The survey asked how designers would rate the quality of their supplier's product. Again, the designers cluster around average, with 45.5% rating the products quality as average, 18.2% above average, and 36.4% below average.



Figure 3: Quality of supplier's product is rated.

The responsiveness of the suppliers also collected around average. Designers perceive that their suppliers are communicating adequately enough.





Figure 4 and 5: Designers rate their suppliers' responsiveness and friendliness.

The majority of designers said that quality is the most important attribute of a supplier. Small designers are concerned with the quality of their clothing designs and final product, so this result is expected.



Figure 6: Designers say the most important aspect in a supplier is the quality of

## the product.

Designers also wish to change their supplier's quality over the other choices.

This suggests again that the designers are always looking how to improve the final

quality of their work.



Figure 7: Most designers would like to see a change in quality from their

suppliers.

Most designers had not received a delivery from their supplier late. It seems the suppliers are mostly reliable when it comes to delivery dates.



Figure 8: Most designers report they have not received a delivery from their

supplier late.

However, when it comes to quality of material, the majority of designers believe that they were misled about the product quality they would receive. Only 36.4% say they have always received what they were expecting.



Figure 9: Nearly two thirds of designers report they have received a product from their supplier that is not the quality they ordered.

Discrepancies with the quality have discouraged a majority of designers who've

encountered them have deterred them from working with that supplier.



Figure 10: Quality discrepancies make designers uneasy about working with suppliers.

81.8% of the designers responded that they were unable to order the quality they wanted from their supplier. This would lead us to believe that most designers wanted higher quality than the supplier was able to offer. It could be true that the designers wanted lower quality materials, however, this seems unlikely considering most designers judging quality as their most important aspect of a supplier.





Along with struggling to get the desired quality from their suppliers, the majority of designers were unable to order the desired quantity from their supplier. All who could not get their desired quantity said they wanted to purchase small quantities of supplies, but the supplier could not accommodate them. None responded that they wanted too much from their supplier and only 18.2% said they received what they asked for.





When a designer was unable to get their desired quantity, most said they became uneasy about working with this supplier. Correct quantity, aside from quality, has turned out to be the most difficulty that designers have when dealing with their suppliers. This suggests that the designers are not looking for large quantities of material and would prefer to order smaller lots. This could possibly be because of the cost on the designer to order large lots is too much, or the designers may be unsure that they will be able to sell all of the material that they must order from the supplier. Designers who are not established have no guaranteed client base, and therefore makes it risky to buy large lots.



Figure 13: When not able to get the correct quantity of materials from their supplier, most designers are dissuaded from working with that supplier.

The survey asked designers if they had ever had difficulties with their supplier not responding to them. Most designers said they had not encountered unresponsive suppliers.



Figure 14: Most designers have not had problems with their supplier not

responding.

The 27.3% of designers who had trouble getting responses from their suppliers said this discouraged them from working further with them. Most designers never encountered this problem.



Figure 15: Designers reported that they were not dissuaded with working with a

supplier based on responsiveness.



Most designers responded that their supplier treated them well.

Figure 16 and 17: Majority of designers have been treated well by their suppliers.

Most small designers voted that they had struggled getting the quantity of material that they wanted, and that the issue was that they wanted small amounts. This seems to be a major factor in discouraging designers from working with suppliers. Suppliers are unwilling to sell small lots to designer's, which forces them to have to buy more material then they may necessarily need.

Suppliers must produce high volume to meet the high demand of their products. The big corporate buyers of textile materials, such as PVH and GAP to name a few, want more product at a lower cost. This puts the suppliers in the position where they only make a few dollars off of every pound of product they produce. While if the supplier is making one million pounds of product in a week, they are still making millions of dollars. But the risk is high for the suppliers. Running their machines all day and night at maximum speed leads to wear and tear on the machines and malfunctions that can shut down a textile plant until a technician for textile machines, which are hard to come by, is

able to be acquired. Due to the shortage of technicians in the business, many plants improvise solutions that potentially cause problems for the plant in the future. When a plant is forced to shut down, precious time is lost that costs the suppliers greatly because the margins are so low. The pressure to continuously run textile plants leads to many mistakes that can affect the product they are selling. Suppliers are in a tough position to please their large customers who are their lifeline in the current way the textile industry is run. There is little room for independent small designers to negotiate with these large companies when they have more important clients to please.

Designers are not satisfied with their suppliers and suppliers are unable to serve the interests of their small clients completely because of the nature of the business. This requires a shift in how the industry operates to remedy these issues.

## **Conclusion and Recommendations**

We completed the objectives and analyzed the data to make recommendations for solutions to the problems facing designers. Recommendations were made for each of the current situations for fashion designers and suppliers to try and cover the concerns of both sides.

Today's technology has allowed for individuals ease of access to many industries. Musicians can spread their music and painters can paint masterpieces without ever leaving their homes and have full access to an audience of potential interested customers. Even though many different mediums of art have become simpler with the digital age, the oligarchical nature of the textile material industry in the modern day applies a high barrier of entry to the fashion world. Industrial fashion has not caught up to the modern day, where extremely custom products and services take center stage. This is largely due to the nature of the physical manufacturing of the products, and the lack of the digital nature of the business.

A unionization of the small designers would allow them to pool their money in order to buy the large quantities of materials and divvy the materials up based on the individual's contribution to the pool. Also, having a Co-op of small designers would allow for a larger lobbying presence when negotiating for prices or quality that the supplier would be more inclined to agree to. A web application would be useful to be able to facilitate the system. The ease of use of a web application would introduce a muchneeded technology into the industry that would help propel the industry into the modern age.

Suppliers struggle with selling small quantities to individual designers because the margins of profit that they make are so small. They lack the ability to divert resources to deal with small orders and maintain the type of connections that are 'insignificant' in comparison to their large customers. However, the multitude of small designers wishing to buy small quantities and high-quality material is a market that they are not capitalizing upon. Diverting a portion of resources to deal with small designers could perhaps lead to a growth in their business. In future research, it would be insightful to see the consumers point of view, whether or not they would prefer a more personalized and high-quality garment or a cheap and ready-to-wear garment. Also, an analysis to substantiate the costs of purchasing one high-quality garment that is long

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lasting verses purchasing multiple low-quality garments to last the same amount of time. In addition to a view from the consumer, surveys taking into account price points which designers have found to be most beneficial could aid in determining where an equilibrium between affordability and quality for consumers may lay.

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## **APPENDIX A: FASHION DESIGNER SURVEY**

## **Fashion and Textile Survey**

A survey on the state of the fashion industry and its supply chain

\* Required

### Occupation

1. Have you ever attempted to be in the fashion industry or are you a Fashion Designer, affiliated with a label, or work in the industry? \*

Mark only one oval.



#### **General Info**

2. How would you rate your experience with your materials suppliers? \* Mark only one oval.

	1	2	3	4	5	
Very Bad	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	Very Good
<b>How would</b> Mark only d	<b>d you ra</b> one oval.	te your	supplie	rs' pun	ctuality?	• *
	1	2	3	4	5	
Very Bad	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	Very Good
<b>How would</b> Mark only d	<b>d you ra</b> one oval.	te your	supplie	rs' mate	erial qua	llity? *
How would Mark only o	d you ra one oval. 1	<b>te your</b> 2	supplie 3	rs' mate	erial qua	ılity? *
How would Mark only o	d you ra one oval. 1	2	3	rs' mate	5	l <b>lity?*</b> Very Good
How would Mark only of Very Bad How would Mark only of	d you ra one oval. 1 d you ra one oval.	2 te your	3 Supplie	rs' mate 4 rs' resp	5 onsiven	very Good
How would Mark only of Very Bad How would Mark only of	d you ra one oval. 1 d you ra one oval.	te your 2 te your 2	supplie	rs' mate 4 rs' resp 4	onsiven	very Good

#### 6. How would you rate your suppliers' friendliness? \*

Mark only one oval.

	1	2	3	4	5	
Very Bad	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	$\bigcirc$	Very Good

#### 7. Which is most important to you in a supplier?\*

Mark only one oval.

$\bigcirc$	Punctuality
$\bigcirc$	Quality
$\bigcirc$	Responsiveness
$\bigcirc$	Friendliness

# 8. If you could change one thing about your supplier(s), what would it be? \* Mark only one oval.

$\bigcirc$	Punctuality
$\bigcirc$	Quality
$\bigcirc$	Responsiveness
$\bigcirc$	Friendliness

#### 9. Have you ever received a delivery from your supplier late? \*

Mark only one oval.

O Yes	Skip to question	10.
O No		

#### Deliveries

10. Have late deliveries dissuaded you from working with this supplier? \* Mark only one oval.

$\subset$	$\supset$	Yes
$\square$	$\supset$	No

### Quality

11. Have you ever received a shipment from your supplier that was not the quality you expected? \* *Mark only one oval.* 

Yes	Skip to question 12.
O No	Skip to question 13.

### Quality

12. Have quality discrepancies dissuaded you from working with this supplier? \* Mark only one oval.

Yes

## Quality

13. Have you ever run into difficulty ordering the QUALITY of materials you wanted from a supplier? \*

Mark only one oval.

$\subset$	$\supset$	Yes
$\subset$	$\supset$	No

### Quantity

14. Have you ever run into difficulty ordering the QUANTITY of materials you wanted from a supplier? \*

Mark only one oval.

Yes, I wanted too little Skip to question 15. Yes, I wanted too much Skip to question 15. No

#### Quantity

15. Has not being able to get the correct quantity dissuaded you from working with this supplier? Mark only one oval.

YesNo

#### Responsiveness

16. Have you ever had problems with your supplier not responding?

Mark only one oval.

Yes

17. Has having problems with responsiveness dissuaded you from working with a supplier? Mark only one oval.

$\subset$	$\supset$	Yes
$\subset$	$\supset$	No

### **Friendliness**

18. Have you ever had problems with your supplier not treating you well? *Mark only one oval.* 



19. Has being treated poorly dissuaded you from working with a supplier? *Mark only one oval.* 

Yes

## Thank you!

Thank you for taking this survey!