

ABSTRACT

ARBI, MUHAMMAD S., M.S. Product and Market Analysis for bedsheets in United States (Under the direction of Dr. Helmut H. Hergeth and Prof. Nancy Powell)

Bedding has become one of the largest textile markets in the U.S. In the year 2004, the bedding market totaled \$8.3 billion, which was a 12% increase over 2003. Currently, bedsheets and pillowcases account for 33% of this market, i.e. \$2.73 billion as compared to \$2.28 billion five years ago in 1999 (SanFilippo, 2005). The market is growing and the customers are becoming increasingly quality savvy. According to the latest consumer reports from Cotton Incorporated, customers now prefer quality over brand name and looks – as opposed to consumer behaviors twenty years ago. Manufacturers are proactive and push new and improved, higher value products into the market in order to compete with low cost products manufactured overseas. Thus, new product development and improvement of existing products by adding more value is crucial for the survival of U.S. bedsheet manufacturers.

This research provides an in-depth industry and market analysis for bedsheets in the United States. To effectively understand how the bedding industry is affected by different factors, one must first understand the environment in which the manufacturer, retailer, and consumer interact. Current industry dynamics are identified to provide a context to the changing industry and changing markets. The literature review consists of an internal and external environmental analysis of different aspects of the bedding and the sheeting industry. The research includes data collected through a qualitative approach and analyzes six different aspects of the industry: supply chain/logistics, manufacturing, retail, consumer behavior, marketing/merchandising and brands.

In conclusion, the research provides a S.W.O.T. (Strengths, Weaknesses, Opportunities, and Threats) analysis (Bradford, Duncan, & Tarcy) for each of the above mentioned aspects of the bedsheet industry and a general industry analysis using Porter's five forces (Porter, 1980). This analysis will help manufacturers as well as retailers to focus on strengths, minimize weaknesses, deal with threats and take the greatest possible advantage of the opportunities available.

PRODUCT AND MARKET ANALYSIS FOR BED-SHEETS IN UNITED STATES

By

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BIOGRAPHY

The author, Muhammad Shahzad Arbi was born in Karachi, Pakistan on November 17, 1981. His parents are Majeed and Kulsum Arbi and he has two older sisters, Anila and Bilquees, and an older brother, Faisal. Muhammad grew up in Karachi, Pakistan and moved to Houston, Texas in the spring of 2000. He graduated with a Bachelor of Science Degree in Computer Science, with a minor in Mathematics, from the College of Natural Sciences and Mathematics of the University of Houston in May 2003. His family owns a textile manufacturing business in Pakistan. These manufacturing facilities involve warping, sizing, weaving, printing, dyeing and finishing, folding and cutting and sewing capabilities. The author also owns a small software programming company to work on small projects. He spent the summer of 2003 in Pakistan learning about the family business, which motivated him to join one of the top-ranked textile schools of the U.S., North Carolina State University, for his graduate studies. Muhammad is currently completing the requirements for his graduate degree and looks forward to a career in textile sourcing.

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CHAPTER 1: INTRODUCTION

Textile manufacturing has undergone numerous changes in the U.S. during the past decade. This change is due in part to the automation of the manufacturing process and partly to the increasing labor costs in this country. Outsourcing is a preferred choice for vendors in order to keep the costs low and revenues high (Shelton & Wachter, 2005). U.S. manufacturers are proactive and are pushing for new, improved and higher value added products into the market, in order to compete with low cost products manufactured overseas. This strategy is considered a major change for especially bedsheets that used to be a commodity product. New product development and improvements of existing products are becoming crucial for the survival of bedsheet manufacturers in U.S.

Bedding is one of the biggest textile markets in the U.S. In 2004, the bedding market totaled \$8.3 billion, which was a 12% increase over 2003. Currently, bedsheets and pillowcases account for 33% of this market, i.e. \$2.73 billion as compared to \$2.28 billion five years ago in 1999 (SanFilippo, 2005). The data shows that the market is growing. Customers are becoming more and more quality savvy. According to the latest consumer reports, customers now prefer quality over brand name and appearance – which conflicts with the consumer behaviors twenty years ago (Anonymous, 2003).

To effectively understand how the bedding industry is affected by different factors, one must understand the environment in which the manufacturer, retailer, and the consumer interact. This research provides an in-depth market analysis for bedsheets in the United States. It identifies the current industry dynamics to provide a context to the changing industries and markets.

Cotton Incorporated was founded in the early 1970's to increase the demand and profit of cotton through research and promotion (Earley, 2005). According to Cotton Incorporated's Lifestyle Monitor Consumer Buying Behavior Survey – price, color, fiber, thread count, softness and durability to laundering throughout the life of products are the key factors in the purchases of home textile products. These findings should enable manufacturers and retailers to improve their marketing efforts (product, price, placement and promotion) to accommodate consumer preferences for acquiring home fabrics. The objective of this research is to identify the strengths, weaknesses, opportunities and threats of different aspects of the industry. Using this information the home textile producers and retailers can provide, promote and sell products that satisfy the consumer.

1.1 RESEARCH METHODOLOGY

The data was collected through a qualitative approach. A case study methodology, using Yin's convergence of evidence approach was selected as the framework (Yin, 2003). This approach identifies six of many potential sources of information from which to draw information for a case study: archival records, documents, observations (direct and participant), structured interviews and surveys, focus groups and open-ended interviews. As illustrated in Figure 1, four sources of evidence are used: archival records, observations, documents and structured interviews and surveys for this research to make an analysis of the sheeting industry.

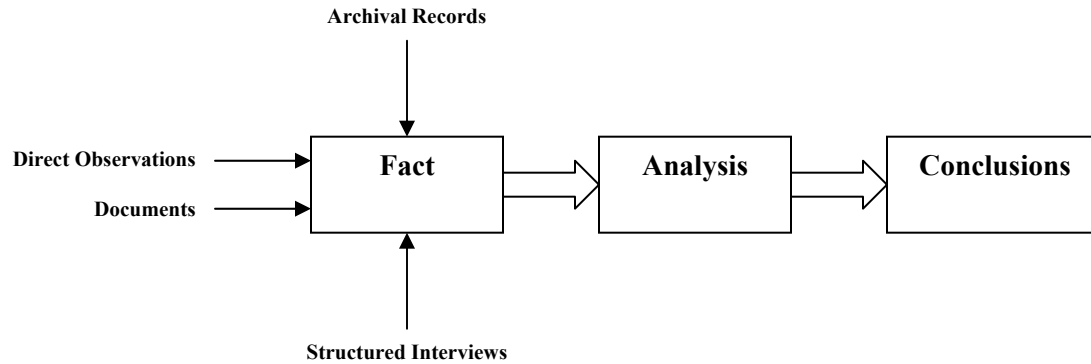


Figure 1: Proposed Analysis Model *Adapted from: (Yin, 2003)*

Archival records consist of industry publications, scholarly journals, governmental data and reports, etc. **Appendix 2** identifies and lists the interview questionnaires for the industry representative interviewed for this research. (Note: I acquired permission to quote their answers in this publicly available document)

1.2 PURPOSE OF THE STUDY

To answer the following questions:

1. What are the factors that are driving different aspects of the sheeting industry?
2. Whether or not these aspects need improving or not? If they do then what can be done to improve these aspects of the industry?

The purpose of this study is to delineate the U.S. home textile industry, specifically the sheeting industry, and to analyze different aspects of the sheeting industry, for instance:

- Supply chain/logistics of bedding products
- Manufacturing
- Retail
- Consumer behavior
- Marketing and Merchandising of bedding products

- Brands

This analysis will help identify the strengths, weaknesses, opportunities and threats of domestic sheeting products.

1.3 RESEARCH OBJECTIVES

- To define the market environment of the U.S. home textiles and in particular the bedding industry by using a qualitative approach through primary and secondary research sources.
- To collect information on the major U.S. retailers and manufacturers to identify current industry dynamics, their value chains and marketing strategies for the sheeting products
- To analyze the collected data and identify the strengths, weaknesses, opportunities and threats for different aspects of the sheeting industry
- To analyze the bedsheet industry as a whole using Porter's Five Forces and make recommendations to improve the industry dynamics in order to focus on strengths, minimize weaknesses, deal with threats and take the greatest possible advantage of the opportunities available.

1.4 SIGNIFICANCE OF THE STUDY

The research offers a profile of the fast-changing U.S. home textile industry and also provides an insight into different aspects of the bedsheet industry. With rapidly changing policies and globalization of the industry, a concise description of the industry can be a helpful tool for the manufacturers as well as the retailers in order to make marketing decisions. This research helps identify any improvements required in different

aspects of the U.S. sheeting industry and makes recommendations on how to make this transformation of the industry more efficient.

The sheeting market is constantly changing with the changing environment. The methodology of this study may serve as a template for future research in the area of similar or other home textile products.

1.5 LIMITATIONS OF THE STUDY

- Confidential information is usually housed inside retail companies and their policies prevent any sharing of trade secrets or proprietary information with any academic or public institutions.
- This research focuses on bedsheets, which comprises a specific subset of the overall home textiles and bedding market.
- The research utilized a case study approach, therefore, only a few representative companies were studied and generalizations about the larger population may be difficult to make. These companies were selected on the basis of their market share. It is considered that the companies with the biggest market share influence the majority of the market.

1.5.1 Scope of the study

Bedsheets and pillowcases are part of the sub-category of the bedding market. Within the sheeting category there exists a wide variety of products. In order to simplify the research goal the following scope was chosen:

Table 1: Scope of the Study

Bed Linens	
Types	Pillowcases, flat and fitted sheets (solids, printed and flannel) Appendix 1
Fiber	100% Cotton
Structure	Woven
Sizes	Twin Full or Double Queen King Pillowcases (see Appendix 3 for size standards)
Standards	Only U.S. standards (not global)
Count	Under 180 thread count 180 thread count 200-250 thread count 250 thread count and above
Retailers	Specialty Retailers – Bed, Bath and Beyond Discount Stores – Wal-Mart Department Stores – JCPenney
Manufacturers (Domestic)	Springs Industries Dan River Westpoint Stevens
Distribution Channels	Specialty store, Department stores, Mass merchant, Others (e-tailing, catalog, etc.)
Sourcing	U.S. manufacturers

1.6 DEFINITIONS OF TERMS

Since this research is based on cotton sheets, the words ‘bed sheets’ and ‘bed linens’ are used in the same sense. According to the literature, bed sheets refer to the top and bottom sheets and/or pillowcases, whereas bed linens refer to all "coverings" used on beds for example, bedsheets, blanket, comforter, etc. Bed spread usually refers to the top layer of bedding – such as a comforter, whereas, a blanket is its own category, called "blanket".

Some of the important terms related to this research are listed in **Appendix 1**.

Chapter 2 provides background on the Home Textile Industry. In chapter 3, a profile of the industry is presented. Chapter 4 analyzes different aspects of the bedsheet industry by using tools like Porter's Five Forces (Porter, 1980) and Value Chain (Porter, 1985). The conclusion and future research are explained in chapter 5.

CHAPTER 2: BACKGROUND

2.1 Home Textiles Industry

The Home Textile Industry consists of a wide range of products, but the four major product categories in the U.S. for home textiles are Bed, Bath, Kitchen and Others. The following table gives examples for each of the categories. ("A year of change for Top 5 players," 2004)

Table 2: Home Textiles Product Categories

Bed	Bath	Kitchen	Others
Blankets	Bath accessories	Kitchen Textiles	Rugs
Comforters	Bath Rugs	Table Linens	Window Coverings
Curtains/Draperies	Bath towels		
Decorative Pillows	Shower Curtains		
Down Comforters			
Foam Pillows /			
Toppers			
Mattress Pads			
Quilts			
Throws			
Sheets			

2.2 Bedding Industry

Bedding has become one of the largest textile markets in the U.S. In the year 2004, the bedding market totaled \$8.3 billion, which was a 12% increase over 2003 (SanFilippo, 2005). The bedding market consists of several different products: blankets, comforters, and curtains/draperies, decorative pillows, down comforters, foam pillows / toppers, mattress pads, quilts, throws and sheets.

2.3 Sheeting Industry

A bedsheet can be defined as a rectangular fabric of various grades and weights with good tensile strengths (Higgins, 1948). The ASTM definition for ‘sheet’ is: (ASTM, 2005)

sheet, n—in textiles, a large rectangular usually plain woven fabricated product which is used over a mattress on a bed. The product may be carded or combed yarn in a wide range of constructions. **D 5431**

Figure 2: ASTM Standard Definition of sheet

Traditionally sheets have been woven in a similar construction as of percale and heavy muslin (Higgins, 1948). Nowadays, bedsheets are available in vast variety on the basis of fiber types, yarn construction, thread count, weave or knit structure and different sizes. See **Appendix 3** for different bedsheet size charts.

Bedsheets can be classified into several different categories based on their structure, design/color and weave. My research includes the following general sheeting classification:

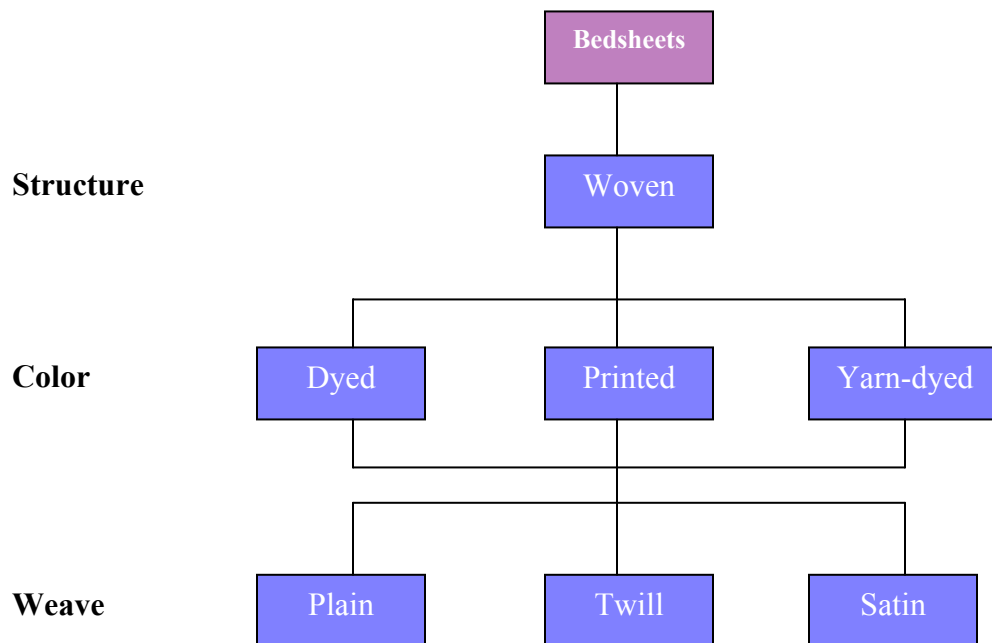


Figure 3: General Sheeting Classification

Currently, bedsheets and pillowcases account for 33% of the bedding market, i.e. \$2.73 billion as compared to \$2.28 billion five years ago in 1999 (SanFilippo, 2005). This is an increase of over half a billion dollars in sales in the past five years. There is significant growth in the market. Figure 4 demonstrates the U.S. sales of bedsheets and pillowcases from 2000 to 2004.

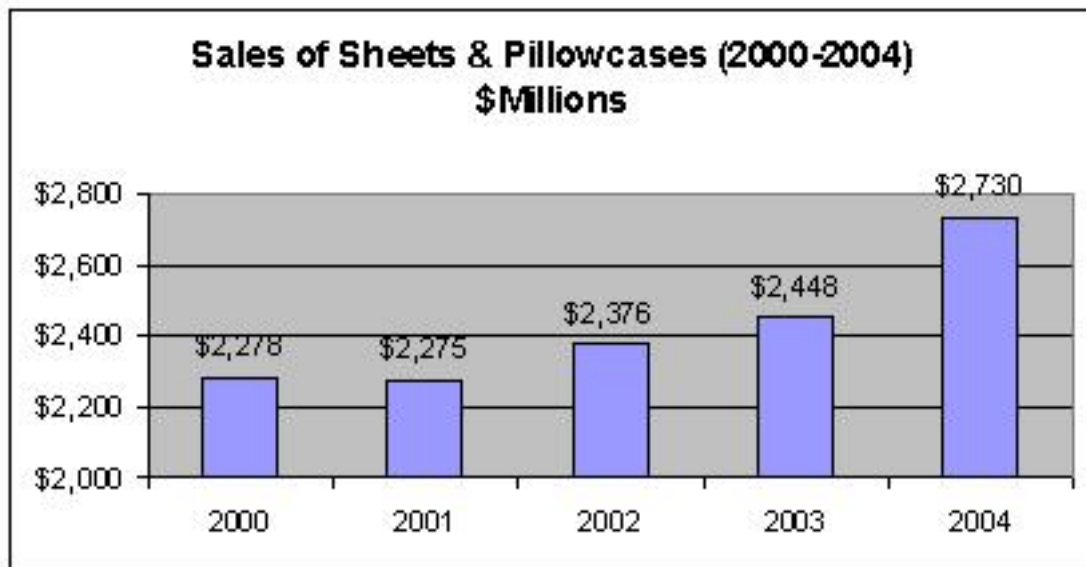


Figure 4: Sheets and pillowcases sales in \$ millions (2000 – 2004)

Source: Home Textiles Today

Thus sheeting is definitely one of the most important markets in the bedding industry. Some industry representatives believe that with the quota relief of 2005, these numbers will further increase over the next few years (Earley, 2005) due to increased outsourcing of low-cost products from overseas.

CHAPTER 3: INDUSTRY PROFILE

In this chapter, information is provided about the following six key aspects of the industry:

- Supply chain/logistics of bedding products
- Manufacturing
- Retail
- Consumer behavior
- Marketing and Merchandising of bedding products
- Brands

3.1 Supply Chain / Logistics

The DAMA (Demand Activated Manufacturing Architecture) project started in 1993 by National Labs and was commercialized by [TC]² in an effort to promote collaborative business practices to provide a significant reduction in time and cost to product pipelines. A total of 30 companies from all major sectors of the textile supply chain participated in this project. The goal was to develop, validate and analyze the industry supply chain and integrate the results into computer simulation in order to determine business decisions for collaborative supply chains (Lovejoy, 1996).

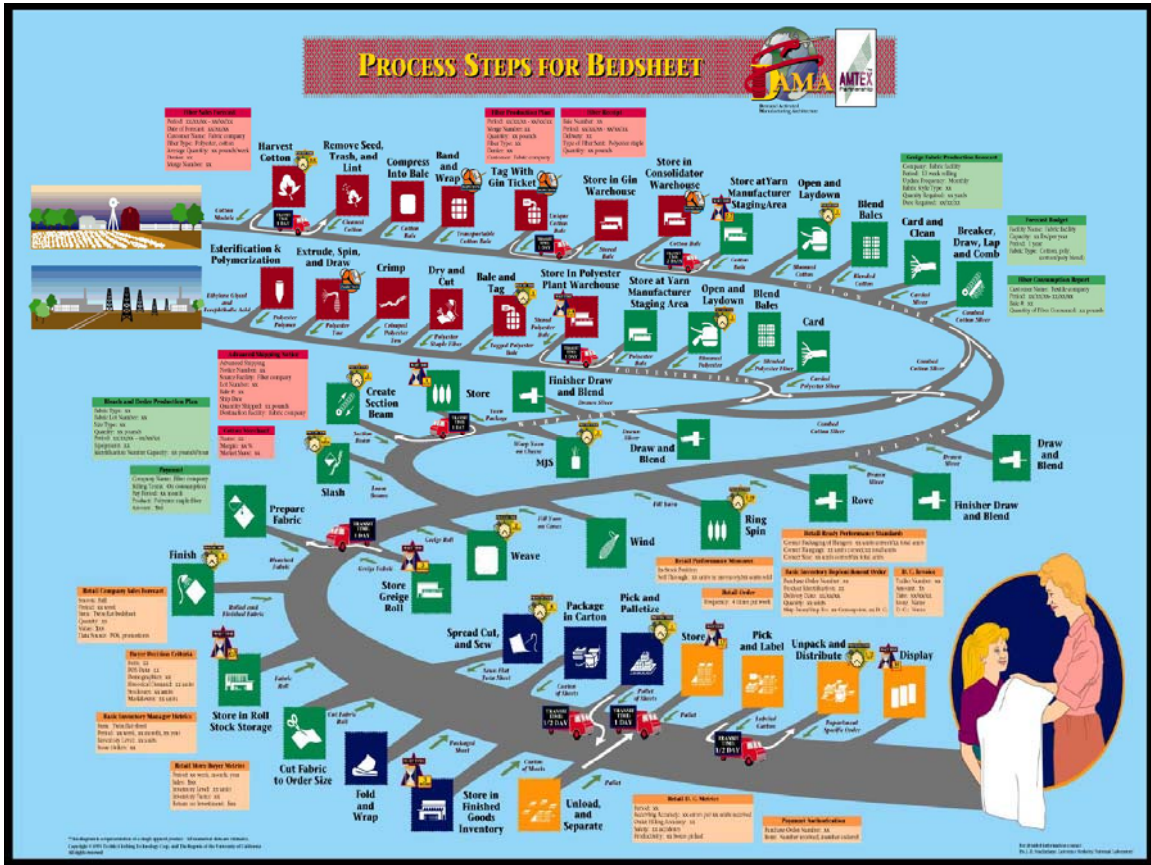


Figure 5: DAMA Supply Chain

The above figure shows the process steps for bedsheets. It is basically divided into four major groups: Fiber, Textile, Manufacturing and Retail. During the investigative stage of this research, the following key observations were made (Lovejoy, 1996) pg.5-10:

Fiber

- Supply Constraints – Unlike synthetic fibers, cotton lead times are fixed, based on the planting season
- Competition for Raw Material Resources – Buyers have two fiber suppliers which allows the manufacturers to take advantage of the competitive prices
- Increased inventory time increases costs and might also affect the quality of the cotton fiber

Textile

- Demand of higher thread count sheets are increasing
- Ensemble products: Since pillowcases, flat and fitted sheets are complimentary products, sometime retailers drive the cost of one of these products low in order to attract the customers, given the fact that the customer will require the other products to create a whole set. A sheet set that includes a flat sheet, a fitted sheet and two pillowcases is becoming popular among the customers.

Manufacturing (Cut and Sew)

- Low Cost, but still complex to produce – bedsheet retail prices are lower than what they were 40 years ago. Since cotton is a natural fiber and it is more complex to process cotton as compared to synthetic fiber.
- Very few companies are vertically integrated
- Less labor intensive as compared to apparel products, especially with more automation

Retail

- Retailers use more than one manufacturer/supplier to produce the same bedsheets for different regions
- Not enough trust in the pipeline to facilitate concepts like shared risks (e.g., no payment for goods until consumer purchased end item). Shared risks only works when new products are developed with short production time and higher profit margins.

Springs Industries is one of the few sheeting manufacturers in the U.S. with vertically integrated manufacturing facilities. Springs blends and spins the yarn, weaves and

finishes the fabric and cut and sews the sheeting. Springs also has a number of their own retail outlets and print a large share of their own packaging ("Springs Industries," 2005). Due to the increase in out-sourcing there have been several effects on the supply chain. Springs' strategy is to maintain "Mirror Manufacturing" in their company. "Mirror Manufacturing" is the ability of the company to manufacture the outsourced products in-house, in order to fulfill the randomly changing demand from the buyer/retailer. This allows the company to fulfill the orders in a timely manner. Springs is ranked as a number one supplier for Wal-Mart. Following is a typical sales process (Lovejoy, 1996) for Wal-Mart from Springs state-of-the-art distribution center.

Table 3: Typical sales process of Springs to Wal-Mart

Sunday	Wal-Mart orders
Monday	Inventory is allocated
Tuesday	Order is visible to the warehouse at Springs
Wednesday	Warehouse receives a pick list and sends an advanced ship notice
Within the next two days	Either Wal-Mart or another carrier picks up the completed order

This sales process also includes the manufacturing of the product if not available in the inventory. It is important to identify any gaps in logistics and take appropriate measures to improve efficiency in the pipeline. Based on the above supply chain analysis and Springs' logistics structure, we can generalize the bedsheet supply chain and make recommendations accordingly for further improvements.

3.2 Manufacturing Environment

U.S. bedsheet manufacturing has been declining over the years. In 2004, U.S. bedsheet manufacturers produced approximately 11 million dozens of bedsheet products. Figure 6 shows the production in the U.S. and shipments to the U.S. of bedsheets from 1992 to 2004. There has been a gradual decrease in the production of bedsheet in the U.S, whereas in 2004, total shipments to the U.S. exceeded the total production. This is due to increased outsourcing and also the licensing of the manufacturer's brands overseas.

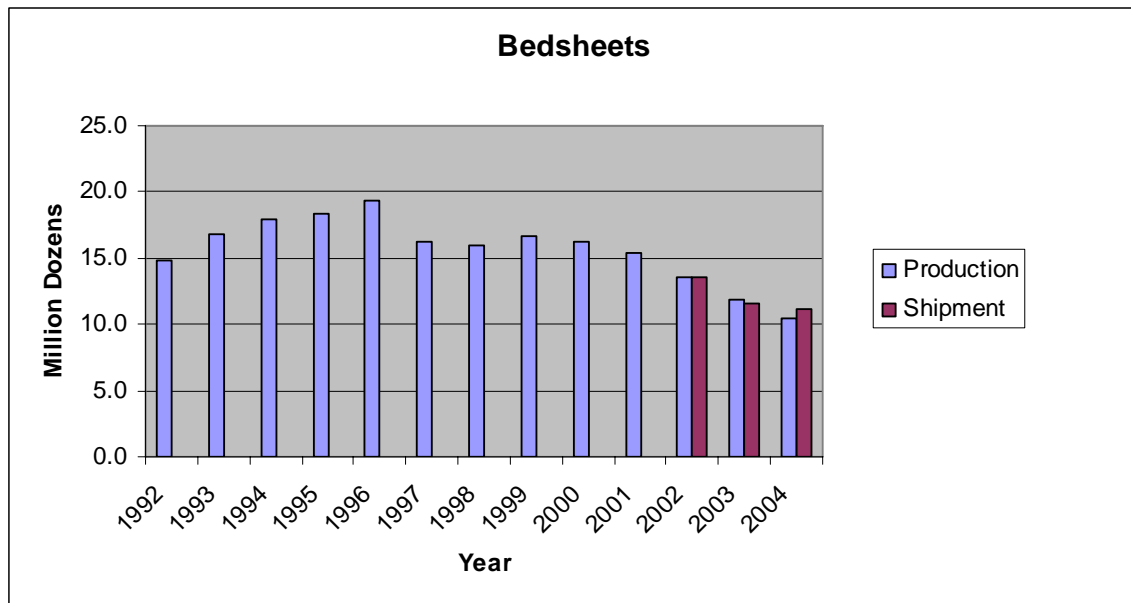


Figure 6: Bedsheet Production and shipment in U.S. (1992-2004)

Source: (*Bed and Bath Furnishings: Fourth Quarter 2004, 2005*) and ("Sheets, Pillowcases and Towels," 2004)

Appendix 4 contains four major graphs related to the manufacturing in the home textiles industry. These graphs show 1) the total number of U.S. manufacturing establishments from 1997 to 2002, 2) the total number of U.S. mills' employees from 1997 to 2002, 3) the total cost of raw materials for these U.S. manufacturing establishments from 1997 to 2002 and 4) the total value of products shipped from these U.S. establishments from 1997

to 2002. All these graphs also contain the relative value for the sheeting products.

According to these graphs:

- The number of textile establishments in the U.S. are decreasing,
- The number of employees in these establishments are also decreasing,
- The total cost of raw materials for these establishments have only slightly decreased and have fluctuated up and down between 1997 and 2002, and
- The total value of final shipments from these establishments is almost the same during these years.

According to Home Textiles Today, 2005 Business Annual, bedsheet suppliers in the U.S. are facing sharp increases in cotton prices and a shortfall in sheet quota. Also, due to high competition, several manufacturing plants have shut down in the past, including Pillowtex. Thus, U.S. manufacturers are in trouble and there is an urgent need for the manufacturers to take desperate measures in order to survive the declining U.S. textile manufacturing.

3.2.1 Political/Legal

Since January 1st, 1995, international textiles and clothing trade has seen fundamental change under the ten-year transitional program of the World Trade Organizations' (WTO) Agreement on Textiles and Clothing (ATC). ATC entered into force on January 1st, 1995, as a ten-year transitional agreement with a program to gradually integrate textile and clothing products fully into General Agreement on Tariffs and Trade (GATT) rules and disciplines by 2005. ATC influenced the production, manufacturing, and sourcing of textile and apparel products. It re-directed the course of U.S. textiles and apparel trade markets to low cost offshore locations at the expense of U.S. jobs (Shelton

& Wachter, 2005). Imports have increased, and the U.S. suppliers, manufacturers and retailers have an opportunity to take advantage of these changes by creating better – not necessarily cheaper – products (Seminar, 2005).

3.2.2 Major Players

The top 5 U.S. sheets and pillowcases suppliers are: (**Appendix 5** for company details)

Table 4: Top 5 U.S. sheets and pillowcases suppliers

	2004 sales (\$ millions)	2003 sales (\$ millions)	Percent change (%)
Springs Industries	\$685	\$740	-7%
WestPoint Stevens	\$520	\$500	4%
Dan River	\$136	\$179	-24%
Divatex Home Fashions	\$120	\$85	41%
Franco Manufacturing	\$103	\$95	8%

3.2.3 Technology

“New technologies have emerged that have given companies the tools to meet the new demands of competition and cost-cutting. As innovation has brought ever-cheaper computing power and new ways to make use of it, capital has become increasingly inexpensive relative to labor. The returns on investment in new labor-saving, high-tech equipment has soared. Given that labor accounts for about two-thirds of the cost of making and selling products, greater labor productivity in today's global economy is essential to corporate survival” (Cooper, 2004) pg.38

There have been several technological innovations in bedding manufacturing in the U.S. In 2003, California-based Venus Home Textiles invested \$1.5 million to buy new

equipment in order to automate their processes. It was the first of its kind in the United States (Schwartz, 2003). The machine is called AKAB-Jenson fitted and flat sheet machine. It is completely computerized and only requires an operator to input the parameters of the required sheet. Production of these machines ranges somewhere between 250 and 550 pieces per hour, depending on material, model, size and type (flat or fitted) of the sheets.



Figure 7: AK210/AK272 Machines (AKAB, 2005a)

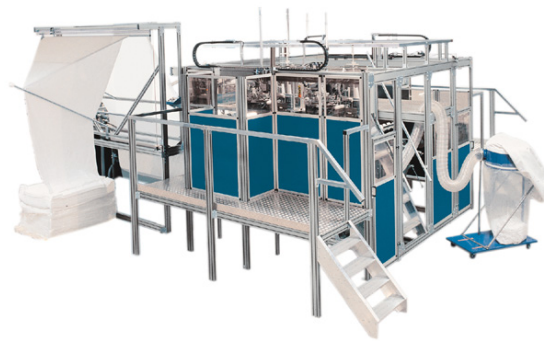


Figure 8: AK232/AK244 Machines (AKAB, 2005b)

These machines dramatically increased the productivity for the company. According to the officials at Venus Home Textile, the machine was producing up to 150,000 sheet sets per month and was able to make 400 sheets in one hour – 20 times more than in the production as compared to manual production (Corral, 2003).

Spring Industries also uses highly automated machinery in their manufacturing facilities. From fiber to packed product, ‘Springs’ own a state-of-the-art continuous manufacturing structure. Newly acquired automated flat and fitted sheet machines have increased production speed by almost 20 times in the past couple of years. Springs also own a state-of-the-art distribution center. This center is composed of a web of conveyer belts across the building, controlled by IC sensors directing each package to its appropriate destination (Hovis, 2005).

3.2.4 Innovations

Recently, there have been several developments in the sheeting industry. Manufacturers have introduced new and improved yarn constructions, finishing techniques and technical expertise (Anonymous, 2004b). The manufacturing is based on the shape and design of bed, relevant to the ergonomics or human dimensions. Compared to apparel products, there are only a limited number of variables available for innovations. With the increasing demand of high thread count by the consumers without regard to the other quality measures of the sheeting, it is important to add new, improved and more innovative products into the market (Schwartz, 2003). The following are a few examples of innovative products introduced into the market by manufacturers:

- Manufacturers use different fiber blends to achieve specific performance characteristic. For instance, Pillowtex/Fieldcrest-Cannon™ introduced their Fieldcrest 310 micro-denier sheets by blending cotton with micro-denier polyester (60/40 cotton-polyester ratio). This introduction offered soft cotton-like sheets with “longer wear and better ‘out of the dryer’ appearance” (Schwartz, 2003).

- WestPoint Stevens introduced their Precious Sleep X-Static® fiber sheets made with noble fibers and have antimicrobial and temperature-modifying capabilities and Martex Convertibles® reversible bedding (Schwartz, 2003).
- WestPoint Stevens also introduced their all-cotton Natural Stretch® sheets with Cotton Incorporated. Due to the poor marketing strategy, this product did not succeed in the market place (Earley, 2005).
- Springs Industries' *Sleepology Collection*: (Anonymous, 2004b)

Table 5: Springs' Sleepology Collection

Wamsutta Embrace:	<ul style="list-style-type: none"> ▪ 100% cotton flat sheets and pillows cases ▪ Fitted sheets with stretch to assure the sheets stay in place
Wamsutta Comfort Zone:	<ul style="list-style-type: none"> ▪ 80/20 cotton-rich blend ▪ Wicks away moisture to create a more comfortable night sleep
Wamsutta CareFree:	<ul style="list-style-type: none"> ▪ twill weave 360-count ▪ WrinkleGuard® finish
Wamsutta Rest Easy:	<ul style="list-style-type: none"> ▪ 85% cotton and 15% anti-bacterial and anti-fungal synthetic fibers ▪ allergen-reduction properties prohibit the growth of dust mites

- Product development teams at DuPont and Pillowtex/Fieldcrest-Cannon worked together to develop the new Fieldcrest *Snug & Savvy*® sheets. DuPont spent over \$240 million in the past 3 years to market their new product Lycra®. These sheets featured a blend of 95% cotton and 5% Lycra. Lycra® is completely submerged within the cotton fibers and allows 30% stretch to the fabric. This results in better fit while staying “neat” and unwrinkled (Schwartz, 2003).

Based on these few examples, we have categorized these innovations into four characteristics in order to figure out the trend and the direction that the manufacturers are taking in order to innovate new products. These categories are listed below:

- Mix and match – combination and blends of different kinds and varieties of fibers with added value
- New and improved yarn constructions
- Creative weaving designs and structures
- State-of-the-art new finishes and processes

3.3 Retail Environment:

Consumers are now spending less and less time in the store. Instead of buying ensemble products and trying to match the flat sheet to the fitted, consumers now prefer buying a complete set of sheets (Earley, 2005). According to the retail audit in **Appendix 6**, specialty stores recognize this shift and are now carrying whole sets of sheets instead of individual products.

3.3.1 Major Players

As mentioned before, Home Textiles is an \$8.3 billion market. The following table demonstrates the Top-5 retailers in four different distribution channels in 2003 (Sloan, 2005).

Table 6: Top 5 Home Textiles Retailers for different distribution channels

Top 5 Home Textiles			
Specialty Retailers	Mass Merchandisers	Department Stores	Catalogs
Bed Bath & Beyond	Wal-Mart	JCPenney	JCPenney
Linens ‘n Things	Target Stores	Kohl’s	The Company Store
Luxury Linens	Kmart	Mervyn’s	Pottery Barn
Pier 1 Imports	T.J. Maxx/Marshalls	Macy’s East	Brylane Home
Pottery Barn	Big Lots	Macy’s West	Direct Marketing

Table 7 shows the comparison of customer buying preferences of home textile products (towels, sheets, comforter, etc.) at different distribution channels (Source: Cotton Incorporated’s Lifestyle Monitor):

Table 7: Consumer buying preference at different distribution channels

Distribution Channels	1998	2003
Mass Merchandisers	39%	48%
Chain Stores	34%	29%
Department Store	27%	20%
Specialty Store	13%	24%

Customers are now buying more products from mass merchandisers (Wal-Mart, Target, etc.) and fewer products from the chain stores and departmental stores (JCPenney, Belk, etc.) as compared to over five years ago. Higher value products with low costs are attracting more and more customers. According the table 7, the highest increase is 11% for specialty store (Bed, Bath and Beyond, Linens N Things, etc.).

3.3.2 Strong Mass Merchandisers

Figure 9 shows that sales for the past five year have dramatically increased for mass merchandisers and have decreased for the departmental stores. This shows that consumers now prefer low-cost products.

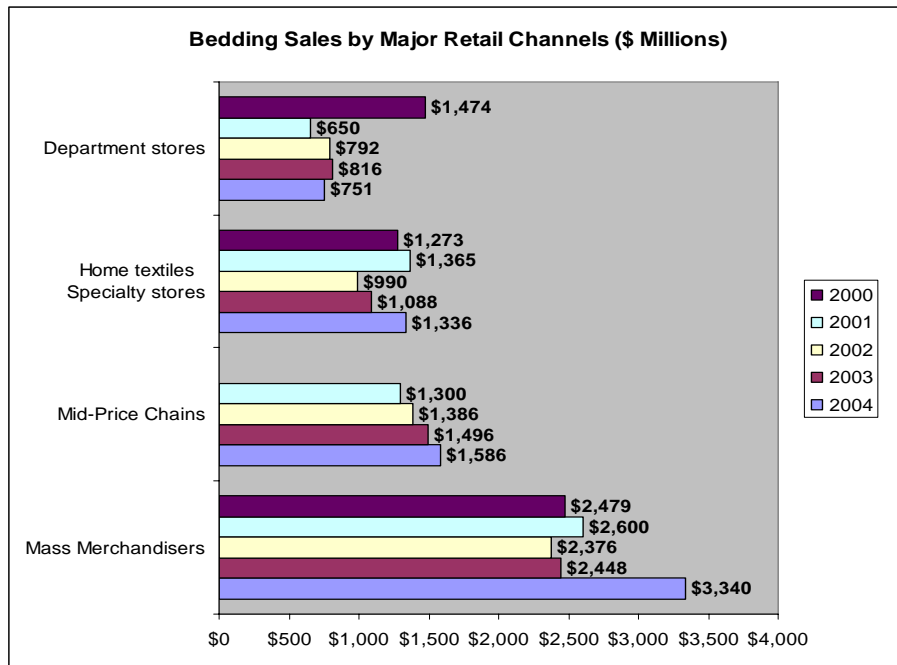


Figure 9: Bedding Sales by Major Retail Channels in the past 5 years

(Source: Home Textiles Today)

In 2002, 43% of the home textile sales were through mass merchandisers or discount stores. Approximately 22% of these sales were in bedding, thus making it the biggest market compared to other home textile products. Figure 10 shows the percent share for each of the products at mass merchandisers.

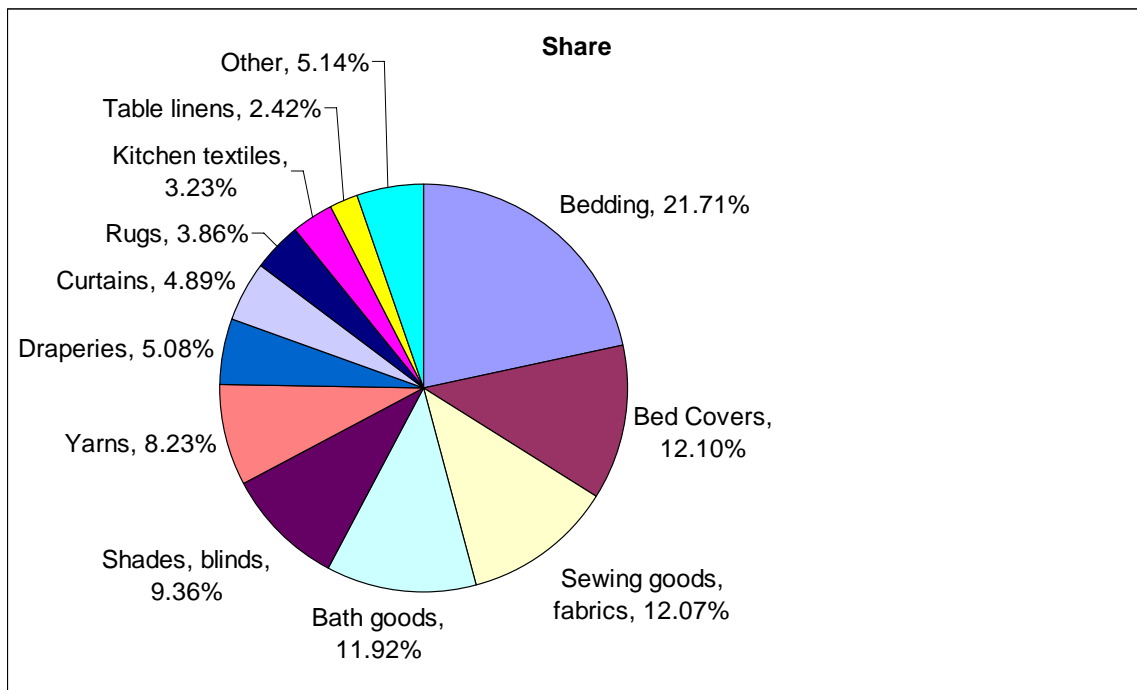


Figure 10: Home Fashion Sales At Mass Merchandisers (2002)

Source: (*Market Share Reporter*, 2004a)

3.3.3 Online Sales

Total Online retail sales topped the \$100 billion mark in 2003 and are increasing at a fast rate (Lugo, 2004). 3% of these sales were in home textiles. Online sales are ideal for the retailers to increase their market reach around the globe without major financial requirements. Bedding is one of the products in which it is important for the majority of the customers to actually touch and feel the product before buying (Landers, 2005). Nevertheless, there has still been a significant increase in online shopping of bedding products. Online stores and physical stores actually work hand-in-hand with the overall

sales of the bedsheet products. According to the literature readings, there are two different ways this works out:

i. Front-back use:

Customers are using the online store not only for buying products but also as a guide to what is out there. For example, if a customer were looking for a particular brand or type of sheets, he or she would go to different stores to find it. Now they can search the web for a particular bedding product and see if it is available in any of the stores. Once they make their decision on what to buy, they can go directly to the store and feel the product before buying it. Thus, in this case, the online store also serves as a product guide. This behavior is called front-back use of the online store. Since most of the bedsheet products are packaged and there is no way of actually feeling the fabric before buying, manufacturers/supplier are now providing retail stores with sample fabrics for display in their stores.

ii. Back-front use:

In the above-mentioned case, the customer is buying the product after handling the product at a store. This case is completely different than the one in which the customers find a product in a store that they like. They do not buy the product at the store; instead they go home with the product detail and find the best price for it on the internet and purchase. This behavior is called back-front use of the online store.

3.4 Consumer Environment

In today’s U.S. market, the consumer has a high standard of fashion and style. The customers are sophisticated and selective in their choices and the desire to stay with the latest trends constantly evolves their sense of style. Thus, with the rise of home sales since 2003, consumers have purchased more products for their homes (Anonymous, 2004c).

The industry divides the consumer segments based on total population, age groups, decision drivers, etc. Springs Industries has done research for ‘Demographics based consumer segmentation’. Table 8 is part of the Springs Industries Brand management report to the stakeholders (Gillock, 2005).

Table 8: Demographics Based Consumer Segmentation

Age	15-25	25-34	35-44	45-54	55-64
Avg. Spent on Home Textiles Annually	\$42	\$109	\$108	\$155	\$140
% of Population	14%	13%	15%	15%	10%
2005-2010 Proj. Pop. Growth	+6%	+6%	-5%	+5%	+19%
Characteristics, Needs and Purchase Decision Drivers	Forming brand and retailer preferences Value, Style, Aspiration Some New Nesters and Brides	New Nesters New Brides Young Mom’s Value, Selection, Infant/Toddler Establishing Home	Moms w/kids & teens shopping for the whole family Key at BTS Value, Quality, Kids & Teens	Heaviest Spenders Empty nesters: Peak income years Willing to pay more for quality	Grandparents and retirees: heavy spenders Purchasing 2nd homes Willing to pay more for quality

Source: (Gillock, 2005): original source: U.S. Consumer Expenditure Survey, U.S. Department of Labor Bureau of Labor Statistics, Retail Forward ShopperScape

Generation X – “the generation following the baby boomers (especially Americans and Canadians born in the 1960s and 1970s)” (Princeton, 1998) – is the wealthiest consumer segment in America compared to its parents. Generation X has increasing buying power and need instant gratification (Grimm, 2004). It is important to know what they want. Table 8 shows that the younger segment (under 25, Generation Y) is not the largest segment, but is a growing segment with lots of buying occasions (first dorm, first apartment, first home, etc.) in their lives. Families (25-44, Generation X) are the largest segment with increasing buying power and needs and Empty Nesters (45+, Boomers and Grands) are the fastest growing and heaviest spenders with the highest disposable income (Gillock, 2005). Based on these implications, a brand portfolio should be strategically built in order to address this range of shoppers based on their purchase needs.

3.4.1 Market Projections:

Figure 11 displays the projected bedding markets for some of the larger cities of the U.S. in 2007. The northeastern region (Chicago, NY, Boston, etc.) and the southwestern region (LA, Houston, Dallas, etc.) are forecasted biggest markets. These regions are also considered as the fashion drivers of the industry (Poor, 2005).

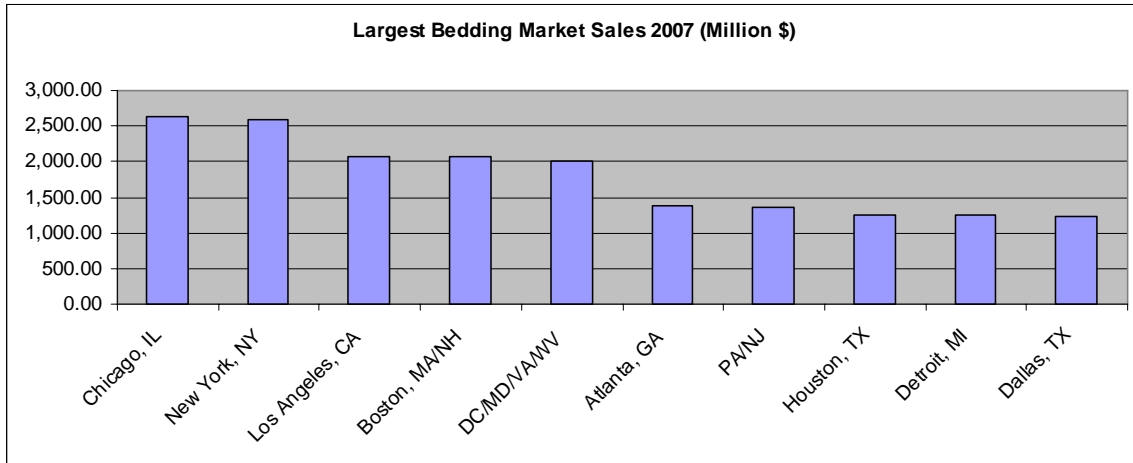


Figure 11: Largest Bedding Markets, 2007

Source: (*Market Share Reporter*, 2004a)

3.4.2 Buyer Characteristics

Cotton Incorporated's Lifestyle Monitor™ conducted home fabric studies and Consumer Behavioral Surveys in 2003. These surveys were done in order to find out what consumers are looking for in their sheets? As a result, three of the most important bedsheet purchase factors found were size/fit, softness and durability.

Some of the results from these surveys are as follows:

- A typical household spends an average of \$57 per bedding item and 73% of these consumers consider cotton fiber an important feature when purchasing bedding items (Anonymous, 2003).
- 64% of U.S. consumers were willing to spend more on 100% cotton products compared to other synthetic or blended products (Anonymous, 2004b).
- Consumers spent an average of \$123, purchasing sheets in 2003, at \$36 per sheet set

- 92% of the people surveyed said they prefer buying packaged sheet sets instead of single sheets. It is more convenient for the consumers to buy sheet sets which include a flat sheet, a fitted sheet, and pillowcases of the same color in one package rather than to shop around in search of matching shades (Anonymous, 2004b).
- Two-third of the people in 2003 indicated that they like to feel the sheet before they purchase them.

Kim Kitchings of Cotton Incorporated was quoted, '[t]he women's role has changed dramatically. She is most likely a working mom and definitely time-poor'. There is a sense of convenience in stores like Walmart, K-mart, & Target which integrates a diverse range of products into one complete store. Kitchings further mentions that females are more prone to fashion sense, and therefore, they are more style-oriented when it comes to shopping. "In this marketplace, perception is everything. More options, more style, more convenience, and more service at retail will go a long way toward making shopping an even more pleasurable experience for everyone this year" (Anonymous, 2004c).

3.4.3 Change in consumer preferences

As shown in the Table 9, twenty years ago consumers preferred fashion appeal and look of home fabrics over performance and costs, whereas now, consumers are well educated about the products and prefer fabric performance (softness, durability, etc.) over the price and fashion appeal of the product. This proposes an opportunity for the industry to give the consumers what they want.

Table 9: Factors important to home fabrics purchases

Factors important to home fabrics purchases		
Rank	1985	2003
1	Fashion Appeal	Softness
2	Fabric Performance	Durability
3	Retail price points	Price
4	Advertising	Life of Product
5	Packaging	Color
6	Brand recognition	Added value
7	Designer and Licensed name	Brand name

Source: (Earley, 2005), (Poor, 2005) and (*Delphi Survey of the U.S. Sheet and Pillowcase Market 1980 - 1985*, 1985)

3.4.4 Buyer Decision Factor

“Today’s consumer is savvy, knowledge-driven and wary, and if he or she is confused, won’t buy. There is a whole cadre of product features and benefits that drive the purchase decision in sheets. One of the questions the consumer is now asking is, ‘What are the sheets going to do for me?’” – Rick Canter, President of core sales at Springs Industries (Anonymous, 2004b) pg.1

According to Rick Canter, consumers are purchasing products based on what they need: Instant gratification and best buy. It is difficult to fulfill both of these demands. Thus the customers need to find products with a balance between quality and cost.

3.4.5 Communicating to the Customer

In order to communicate effectively to the customer, it is important to know where consumers are getting ideas for their home products. The figure below displays the percent of consumers who get their ideas from four of the listed marketing platforms.

These percentages are based on Cotton Incorporated's Lifestyle Monitor™ and Home Study of 2003 (Earley, 2005).

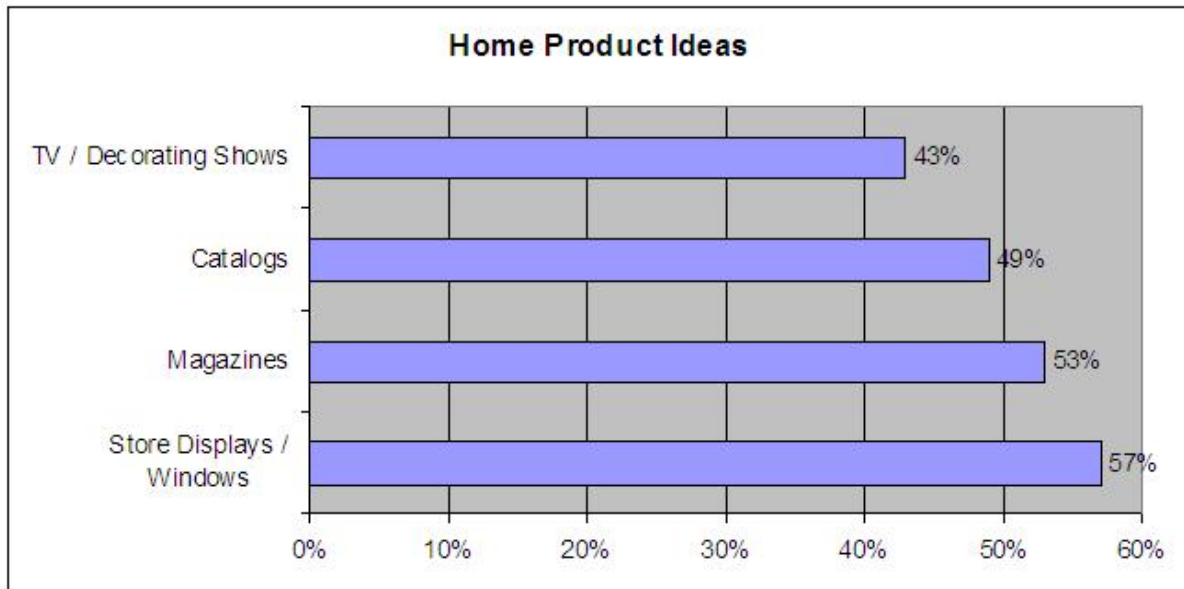


Figure 12: Home Product Ideas

Based on these percentages, a firm can communicate directly to the customer through the platform that they most pay attention to. Springs Industries has allotted a certain budget for sponsorship and product placement on TV shows, web marketing, catalogs, print ads and top publications (Gillock, 2005).

From 1998 to 2003, consumers between the ages of 16-70 were surveyed by Cotton Incorporated on where they get their ideas from for home fabrics. It was from window store displays followed by television commercials (Anonymous, 2004c). They are also getting their ideas from other places such as magazines, offering tips on decorating anything from wallpaper to window treatments, to rugs and bedding accessories.

3.4.6 Thread Count

Thread count is the number of threads woven lengthwise and crosswise into one square inch of fabric (Higgins, 1948). Bedsheets are softer and more luxurious with higher thread count. Tighter weaves with higher thread count enhance comfort and durability of the substrate and thus get more expensive as the thread count increases.

The following graph shows the sheet sales by thread count in 2003. Approximately 95% of the sheet sales were for less than 250 thread count. This shows that majority of the sales were for low-cost and low thread count sheets. Only 5% of the total sales were for high end, better quality products.

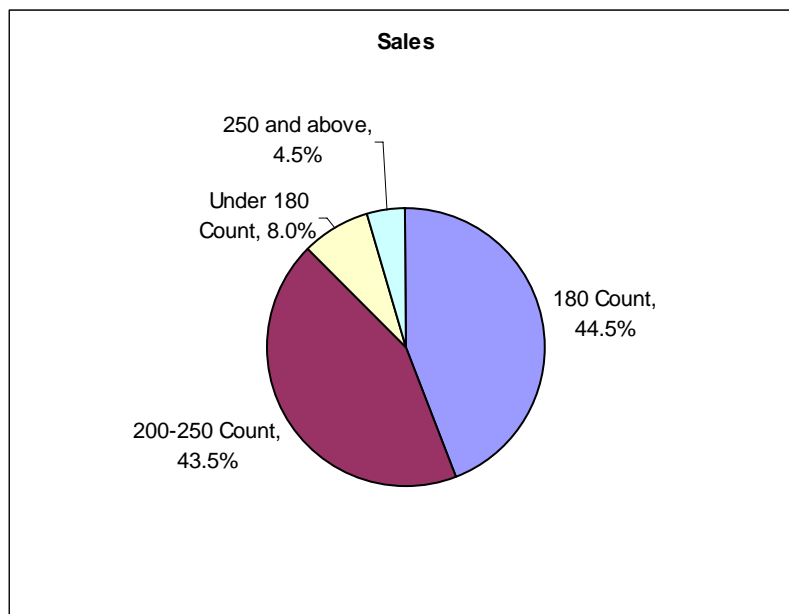


Figure 13: Sheet sales by Thread Count

Source: (*Market Share Reporter*, 2004b)

3.4.6.1 Thread count inflation

Thread count is a big factor in the sheeting industry. It is becoming a major attraction for the customers' buying decision. According to LDB interior textiles, consumers are demanding higher count sheets at more reasonable prices. There was time when 180- or 200-thread count sheets were considered standard and lower end sheets were generally 128-thread count (Schwartz, 2003). Nowadays, 1000 thread count sheets are available in the market and are quickly replacing lower count sheets.

According to the Cotton Incorporated's Lifestyle Monitor, customers agree that sheets with higher thread counts are better quality (90%), softer (79%), and more likely to be made of cotton (75%) (Anonymous, 2004b). This shows that 90% of the customers are judging the products for better quality simply on the basis of thread count. It is true that higher thread count sheets are generally better quality and softer than lower thread counts, but customers need to understand that the thread count is not the only measure of quality. Other measures like weaving patterns, finishing, embellishments, fiber types and qualities, all play equally important roles in creating a luxury product (Schwartz, 2003).

The advent of high thread count sheets has raised the debate on whether thread counts really determines the quality of the product. This has made the customer think high thread count is better. However, the number of threads per square inch does not necessarily guarantee a superior quality. Thread count is only one of the factors that contribute to quality (Leizens, 2001). Making it the only component for quality is naïve as there are other factors such as fineness of yarn, weaving and finishing techniques, and overall embellishments which all contribute to a well-rounded quality product. Thus, simply increasing thread count would not necessarily result in a quality product.

3.4.6.2 Thread count issue with ASTM Standard

The American Society for Testing and Materials (ASTM) International is one of the largest voluntary standards development organizations in the world for technical standards for materials, products, systems, and services. These standards are known for their high technical quality and market relevancy that guides design, manufacturing and trade in the global economy (*About ASTM International*, 2005). Appendix 1 includes most of the standard textile definition from the ASTM standards. Appendix 6 shows the Standard Performance Specification for Woven and Knitted Sheeting Products for Institutional and Household Use (D5431).

Currently the definition of count in standard ASTM terminology is as follows (ASTM, 2005):

count, *n*—*in woven textiles*, the number of warp yarns (ends) and filling yarns (picks) per unit distance as counted while the fabric is held under zero tension, and is free of folds and wrinkles. [D13.60] D 3775

Figure 14: Standard ASTM definition of count

There is no definition for thread count because it is undergoing a change. This change is currently in progress due to an issue with multi-ply yarns in the definition of the thread count. For instance, an 800 thread count sheet set with 2-ply yarn is actually a 400 thread count sheet set. The new rule states that warp and weft strands are counted as single units, regardless of the number of yarn plies. According to Bob Holcombe, chairman of the ASTM subcommittee in-charge of redefining the definition of thread count, a sheet package claiming 800 threads per inch using two-ply yarns should correctly be labeled as a 400-thread count (ASTM, 2005). Details of this change are listed below:

Table 10: Thread count Standard status

Current Regulations: ASTM D7023-04	Proposed Standard Revision: ASTM WK5591
<ul style="list-style-type: none"> • Regulation regarding standard terminology relating to Home Furnishings • Requires that companies label their products as single yarns in reported thread counts, even if plied or instances of double pick insertion • U.S. Customs does not currently enforce this standard 	<ul style="list-style-type: none"> • Proposed revision initiated 8/12/04 by ASTM Subcommittee D13.63 on Home Furnishings (Bob Holcombe) • Proposes clear definition being developed under ASTM D7023-04 for correctly assessing thread counts in sheets and pillowcases • Approval and Implementation: Still Pending

3.5 Marketing Strategy

There are two kinds of promotional marketing strategies: PUSH and PULL. A PUSH marketing strategy is the one in which the manufacturer aggressively promotes the product to retailers, and the retailers aggressively promote the product to consumers. A PULL marketing strategy is the one in which manufacturers and retailers spent a lot of money on advertising and consumer promotion to build up consumer demand. If effective, the consumer will ask retailers for that product and the retailers will in-turn order that product from the manufacturers (Kotler, 1986). Following is an analysis diagram of the bedsheet marketing strategy based on the literature review:

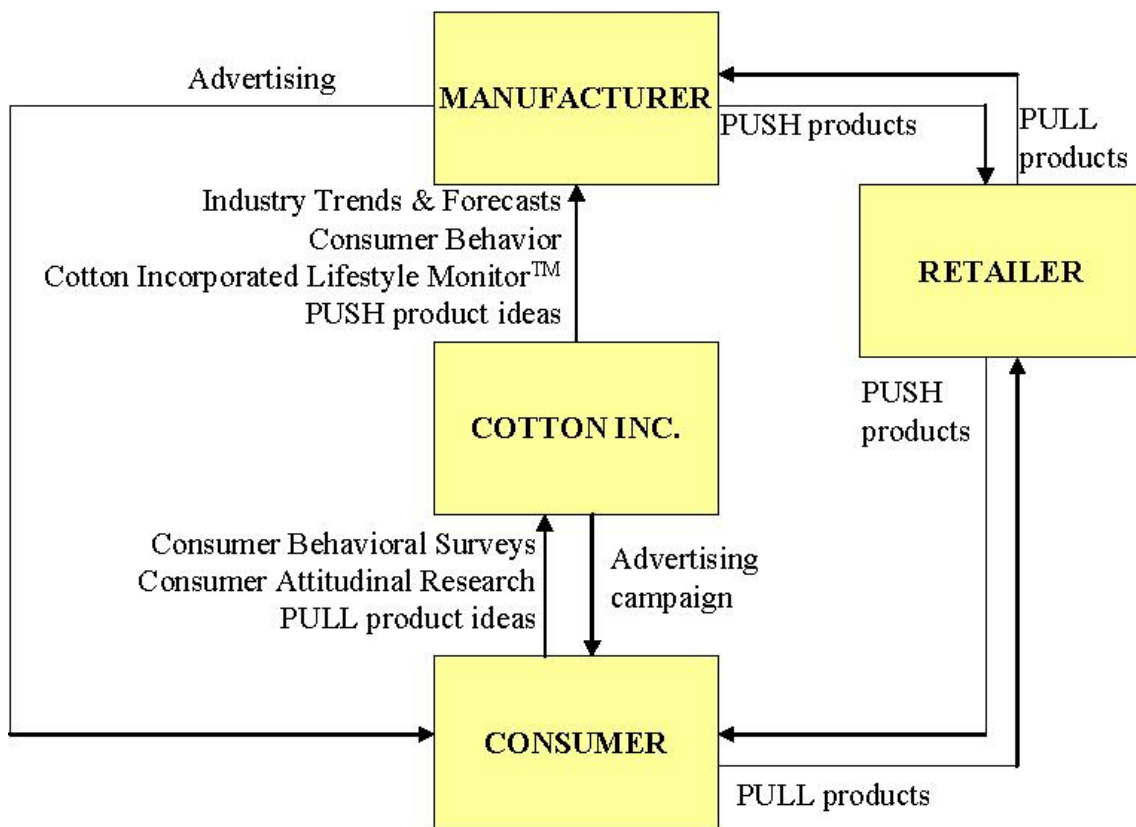


Figure 15: Marketing Strategy

3.5.1 Push

- Springs Industries pushed Wamsutta ComfortZone™, with the ability to wick the moisture away and keep the sheets dry quickly when wet, to the retailers and marketed it to the consumer. This resulted in high returns.
- Cotton Incorporated pushes product ideas to the manufacturers and the retailers, based on the industry trend forecast and advertises these product ideas to the consumers at the same time (Earley, 2005).

3.5.2 Pull

- As consumer knowledge regarding wrinkle-free fabrics increased – a demand for wrinkle-free sheets arose into the market.
- Cotton Incorporated pulls product ideas from the consumers based on consumer attitudinal research and behavioral surveys (Earley, 2005).

3.6 Brands:

Strong brands enhance customer loyalty and enable the company to maintain and grow its market share. U.S. manufacturers have realized this opportunity and have invested their efforts into making a strong brand image for their products. Springs Industries have sustained efforts to accumulate a strong brand portfolio (SpringMaid and Wamsutta), and it ranks number one in retail bedsheets and pillowcases market share (Gillock, 2005).

A brand exists in the mind of the consumer, whereas a product sits on the shelf. Springs' strategy is to create differentiation into their products through branding (Gillock, 2005).

A strong brand:

- Provides a unifying set of values and attitudes
- Lends credibility to existing and new product offerings, and
- Fuels growth and diversification of product portfolio

According to DSN Retailing today, top brands in 2004 for domestics, including bedding, bath and linens among consumers are as follows (Anonymous, 2004a) (percent of consumers who recognized the names):

Table 11: Changes in top bedding brand recognition

BRANDS	2003	2004	Change
CANNON	29%	20%	↓
MARTHA STEWART	18%	20%	↑
POLO/RALPH LAUREN	5%	8%	↑
MARTEX	3%	4%	↑
WAMSUTTA	3%	2%	↓
FIELDCREST	6%	1%	↓
DAN RIVER	0%	1%	↑
SEARS	2%	1%	↓
PEPPEREL/LADY	1%	1%	↔

3.6.1 Challenges in Sheeting Brands:

A retailer can try to manufacture its products (integrating backwards) or a raw material supplier can try to get into the manufacturing of the products that it supplies raw material for (integrating forward). According to the literature, mass merchandisers are the leaders in home textile products sales. This gives them power over controlling the price for the required quality. The retailers (buyers) can *integrate backwards* in the supply chain and become a competitor. On the other hand, the suppliers can *integrate forward* and also become a competitor. This poses a high threat for the manufacturing sector of the supply chain.

CHAPTER 4: ANALYSIS

This chapter analyzes and identifies the strengths, weaknesses, opportunities and threats of different aspects of the bedsheet industry. A Bedsheet industry analysis is mentioned in this chapter using tools like Value Chain and Porter's Five Forces.

4.1 SWOT Analysis

SWOT analysis is a scan of the internal and external environment. It helps matching the firm's resources and capabilities to the competitive environment in which it operates. The following diagram shows how this analysis fits into an environmental scan. (Bradford et al.)

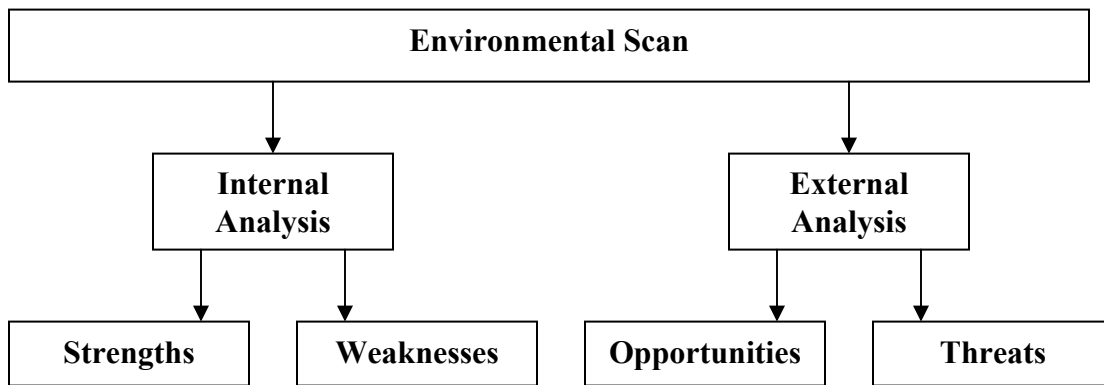


Figure 16: SWOT Matrix Structure

Thus, environmental factors internal to the firm are classified as strengths or weaknesses, whereas those external to the firm are classified as opportunities or threats. Instead of an internal and external analysis of a firm, this analysis is the internal and external analysis of different aspects of the industry based on manufacturers' perspective. The following is an analysis of some of the aspects for the bedding industry and recommendations for improvements, if any. These aspects are: Consumer behavior, Retail, Manufacturing, Marketing/Merchandising and Supply chain/logistics.

4.1.1 Consumer Behavior

Table 12: Analysis of Consumers

Analysis	
Strengths	<ul style="list-style-type: none"> ▪ Gradual increase in market share ▪ 64% prefer cotton products
Weaknesses	<ul style="list-style-type: none"> ▪ Not educated enough about the product ▪ Not willing to pay an extra dollar for a more value added product
Opportunities	<ul style="list-style-type: none"> ▪ More options + more style + more convenience = more sales ▪ Current fashion content for bedding is printing, color and thread count ▪ Targeting consumer segments individually ▪ Any unfulfilled customer need ▪ Consumers are looking for size/fit, softness and durability ▪ Buy sets instead of individual sheets
Threats	<ul style="list-style-type: none"> ▪ Shifts in consumers likes and dislikes ▪ Like to feel the fabric before buying – constrains distribution channels
Recommendations for improvements	<ul style="list-style-type: none"> ▪ Educate the customer ▪ Feedback channels

4.1.2 Retail Relationship

Table 13: Analysis of Retailers

Analysis	
Strengths	<ul style="list-style-type: none"> ▪ No significant strengths for manufacturers' retail relationship
Weaknesses	<ul style="list-style-type: none"> ▪ Inefficient or non-existing feedback channels from customers ▪ Majority of the sales are for low cost complimentary products ▪ Price vs. quality ratio – too risky to carry up-scale more expensive products
Opportunities	<ul style="list-style-type: none"> ▪ Visual merchandising using new technologies ▪ Increase in online shopping ▪ Low-cost products have highest sales
Threats	<ul style="list-style-type: none"> ▪ Product cannibalization – Traditional brands vs. Private Brands ▪ Power in Supply Chain ▪ High risk to carry up-scale more expensive products ▪ Increased competition
Recommendations for improvements	<ul style="list-style-type: none"> ▪ Formal Feedback System

4.1.3 Manufacturing

Table 14: Analysis of Manufacturers

Analysis	
Strengths	<ul style="list-style-type: none"> ▪ New technological advance for more value added products – proactive ▪ State-of-the-art manufacturing facilities ▪ Retail relations
Weaknesses	<ul style="list-style-type: none"> ▪ Not a lot of power in the Supply Chain ▪ High cost structure
Opportunities	<ul style="list-style-type: none"> ▪ If you can't beat them, join them – start outsourcing your own products ▪ Find niche markets
Threats	<ul style="list-style-type: none"> ▪ Retail going directly to the suppliers ▪ Import increase – more low-cost outsourcing ▪ High competition – you have to be the best to be competitive ▪ Rise in interest rate – people moving back with their parents
Recommendations for improvements	<ul style="list-style-type: none"> ▪ Design for obsolescence – low product life ▪ Use forecast and not wait for orders – for efficient and Just-In-Time supply ▪ Strong brand names

4.1.4 Marketing/Merchandising

Table 15: Analysis of the industry’s Marketing/Merchandizing efforts

Analysis	
Strengths	<ul style="list-style-type: none"> ▪ Brand recognition – strong brand names
Weaknesses	<ul style="list-style-type: none"> ▪ Lack of innovation and marketing strategy ▪ Lack of ‘simple marketing’ – people don’t care because people don’t know ▪ Standard product – no formal New Product Development process
Opportunities	<ul style="list-style-type: none"> ▪ Target the right market for the right product by creating a marketing plan around a new product idea before hand ▪ Obsession of thread count ▪ Brand loyalty ▪ Closets are bulging – people need to buy new products (Poor, 2005)
Threats	<ul style="list-style-type: none"> ▪ How to take cotton (old product) and make it interesting again ▪ New regulations (2-ply yarn issue) ▪ Obsession of Thread count – replacing brand names
Recommendations for improvements	<ul style="list-style-type: none"> ▪ Trend forecasting ▪ Build marketing strategy for the product idea ▪ Increase fashion sense by exploiting thread count, new colors and new print designs

4.1.5 Supply Chain/Logistics

Table 16: Analysis of the Industry Supply Chain

Analysis	
Strengths	<ul style="list-style-type: none"> ▪ Distribution network – supplying directly to the stores ▪ Strong distribution channels ▪ No substitute products
Weaknesses	<ul style="list-style-type: none"> ▪ Lack of trust ▪ Rivalry
Opportunities	<ul style="list-style-type: none"> ▪ Sourcing of U.S. yarns overseas ▪ Current lead time 53 weeks – opportunity for improvements ▪ Consistent growth in market ▪ People buying more houses ▪ Arrival of new technology ▪ Loosening of regulations – WTO policies (removal of international trade barriers)
Threats	<ul style="list-style-type: none"> ▪ Increased global competition ▪ Price driven industry – high standards can not be accomplished at low price ▪ Changes in standards
Recommendations for improvements	<ul style="list-style-type: none"> ▪ Collaborative supply chain

4.2 Value Chain Analysis:

Value chain analysis is a tool for firms to distinguish the operations that create value compared to those that do not. It is important for firms to create value in their product which is higher than the cost incurred to create that value. Michael E. Porter proposed a generic Value Chain model in 1980. This model is as follows (Porter, 1985):

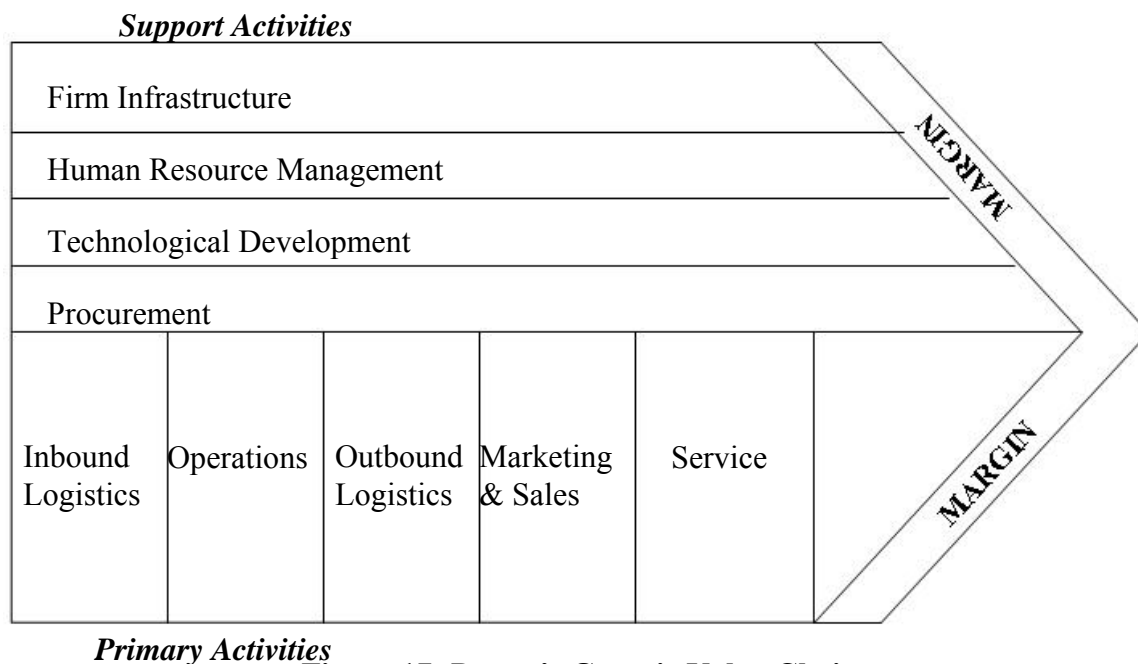
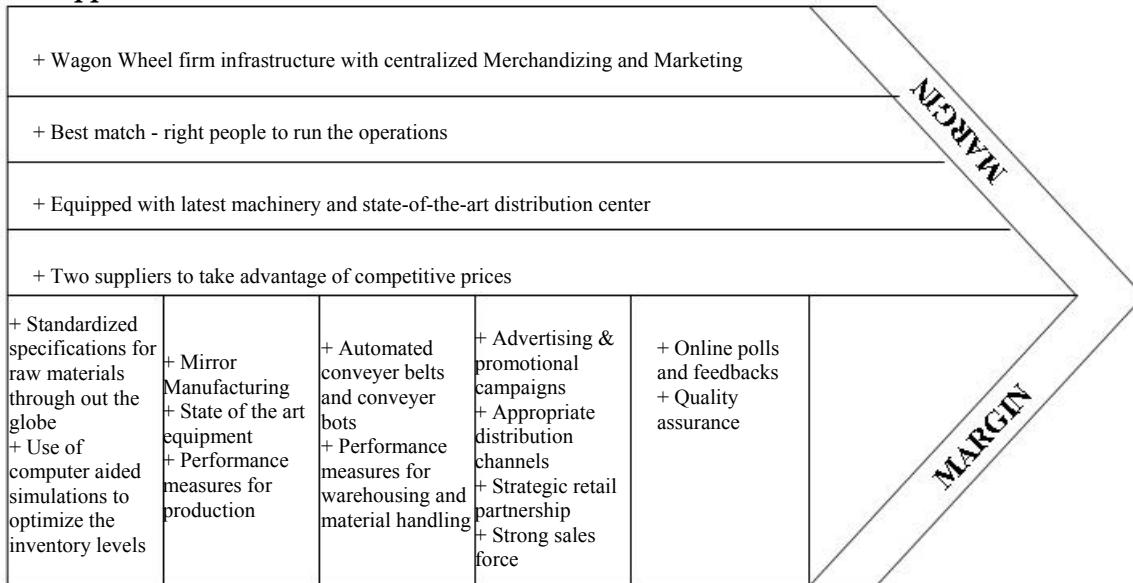


Figure 17: Porter's Generic Value Chain

This generic Value chain is segmented into primary and support activities. “Primary activities are involved with a product’s physical creation, its sale and distribution to buyers, and its service after the sale. Support activities provide the support needed by the primary activities to be implemented” (Hoskisson, Hitt, & Ireland, 2004) pg. 395. Based on the site visit to ‘Springs Industries’, the value chain for sheeting products at ‘Springs Industries’ is as follows:

Support Activities



Primary Activities

Figure 18: Value Chain for sheeting products at Springs Industries

Primary Activities

Inbound Logistics: includes activities like material handling, warehousing, and inventory control, used to receive, store, and disseminate inputs to a product. Springs, being a vertically integrated company, receives fiber from their suppliers and stores it in the warehouse at their Katherine Manufacturing facility for in-house manufacturing. Springs makes sure that this process takes place as efficiently as possible to provide maximum flexibility to the manufacturing plant. Springs is equipped with computer-aided forecasting simulations in order to maintain optimal amount of inventory levels. With the fluctuating nature of costs for cotton (**Appendix 4**), Springs purchases cotton and other synthetic fibers from two suppliers in order to receive competitive prices for the fiber, as well as the latest in fiber development. This allows Springs to bargain for required prices of cotton and other raw materials.

Springs strictly follows certain specifications of raw materials for manufacturing around the globe. If the product is manufactured overseas, the standard raw material specifications help keep a consistent quality of the final products (in-house or outsourced).

Operations: Springs has been mindful of the changes taking place in the global market place. They have realized the need for outsourcing but they also make sure that they have mirror-manufacturing capabilities. This means that Springs Industries can manufacture all products that are being outsourced if the need arises. Mirror manufacturing is obtained by operating a vertically manufacturing structure; from opening the fiber bales through yarn and fabric production and quality control. Springs fabrication facility receives roll stock from offshore suppliers and other Springs plants and make sheets. The company is equipped with state of the art fitted and flat sheet machine, similar to those shown in the Technology section earlier in this paper. Springs also follows certain performance measures for the production and the quality assurance. These measures involve:

- Interruption Index (a measure of unscheduled interrupts) during the production of the bedsheets
- Productivity – measured in terms of pounds of fiber per employee
- Targeted quality versus not first quality ratios (First quality: finished products with required specification)

Outbound Logistics: The Grace Distribution Center of Springs is equipped with automated conveyer robots and conveyer belts. All the products either outsourced or

manufactured in-house are distributed from this center to all customers. The conveyer robots transport crates of packaged sheets on a specified path from the Grace Fabrication center to the distribution center. The robots place the crates onto the conveyer belts in the distribution center. These conveyer belts are equipped with infrared sensors reading the barcodes on each box and thus redirecting it to either the loading zone or the warehouse for collection and storage. The operation is highly automated and is driven by computer sensors at a very high speed. The warehouse is equipped with high story shelves for the storage of packages until an order is being made by the client. Performance measures for material handling and warehousing for Springs include: (Lovejoy, 1996)

- Micro-management of inventory – keeping the inventory level as low as possible (e.g., Just-In-Time delivery)
- Mix of packaging of different quantities in the inventory. This will allow the retailers to order desired quantities with a combination of different products.

Marketing & Sales: Springs has developed strong advertising and promotional campaigns by developing and supporting their sales force. Springs believe that “a brand provides a unifying set of values and attitudes.” Springs Industries has based its marketing strategy on the value of brands as it lends credibility to existing and new product offerings. For instance, Springs’ Wamsutta brand campaign has placed the products as highest quality home fashion products to specialty and department stores. Wamsutta and Springmaid brands are being promoted by Springs through print ads and other visual media. The company sponsors primetime television shows like ‘The Apprentice’ and ‘The Bachelor’ to present them as an exclusive brand.

Springs sells their product to mass merchandisers, specialty stores and departmental stores. The company is the top supplier of bedsheets and other home textile products for Walmart, K-Mart, Target, Linens' N Things, Bed, Bath & Beyond, May Company, Macy's, Bloomingdale's, JCPenney, Sears and Kohl's through significant retail partnership.

Services: Springs provides numerous after-sales services. Springs asks for comments, compliments and feedback on the individual brand websites. According to June 2004 Brand Tracker at Wasutta.com Quick Poll, 84% of those aware of Wamsutta brand would consider buying the brand again.

Compared to the competitor's abilities, Springs rate each primary activity as follows ("Springs Industries," 2005):

Table 17: Primary Activities

	Superior	Equivalent	Inferior
Inbound Logistics	√		
Operations	√		
Outbound Logistics	√		
Marketing and Sales	√		
Services		√	

Support Activities

Firm Infrastructure: The structure of decision making at Springs is similar to a wagon wheel as shown in the figure below. All the decisions go through the center, Marketing/Merchandizing, as it is the hub of activity with in this organization. Customer feedback, supplier information, R&D information as well as sales reports are the raw material for merchandizing/marketing to develop a plan for the season(s).



Figure 19: Wagon Wheel infrastructure for Springs Industries

Human Resource Management: This is one of the biggest strengths of Springs to keep them competing in the home textile market. The company has always believed in recruiting and maintaining the best people to run the operations and management. Springs identifies the talent in the organization and keeps them in the organization even if they have to shut down a facility (Scott, 2005).

Technological Development: Springs has set a benchmark in the industry in terms of technological development. They have state of art machinery for their operations and

logistics. They have un-manned vehicles to transfer finished goods inventory to and from the warehouse. In the operations department, they have installed low labor operation machinery that helps reduce labor cost and increase productivity, thus making the organization more competitive.

Procurement: It is the responsibility of this department to make sure that all materials especially raw materials for manufacturing are according to the standards and quality level set by Springs Industries. The raw material sourcing is of high value for Springs and they make sure that the outsourced manufacturers follow the same quality levels and standards.

Compared to the competitor’s abilities, Springs rate each primary activity as follows:

Table 18: Support Activities

	Superior	Equivalent	Inferior
Firm Infrastructure (Landers, 2005)	√		
HR Management (Scott, 2005)	√		
Technological Development ("Springs Industries," 2005)	√		
Procurement ("Springs Industries," 2005)	√		

4.3 Industry Analysis

Michael E. Porter provided a framework that models an industry as being influenced by five forces. It is important to analyze the ability of the firms to deal with these outside forces because the collective strength of these forces determines the ultimate profit potential in the industry. The bedsheet industry in particular is relatively intense in which no firm earns spectacular returns. Figure 20 is a diagram for the state of competition in an industry based on five basic competitive forces (Porter, 1980):

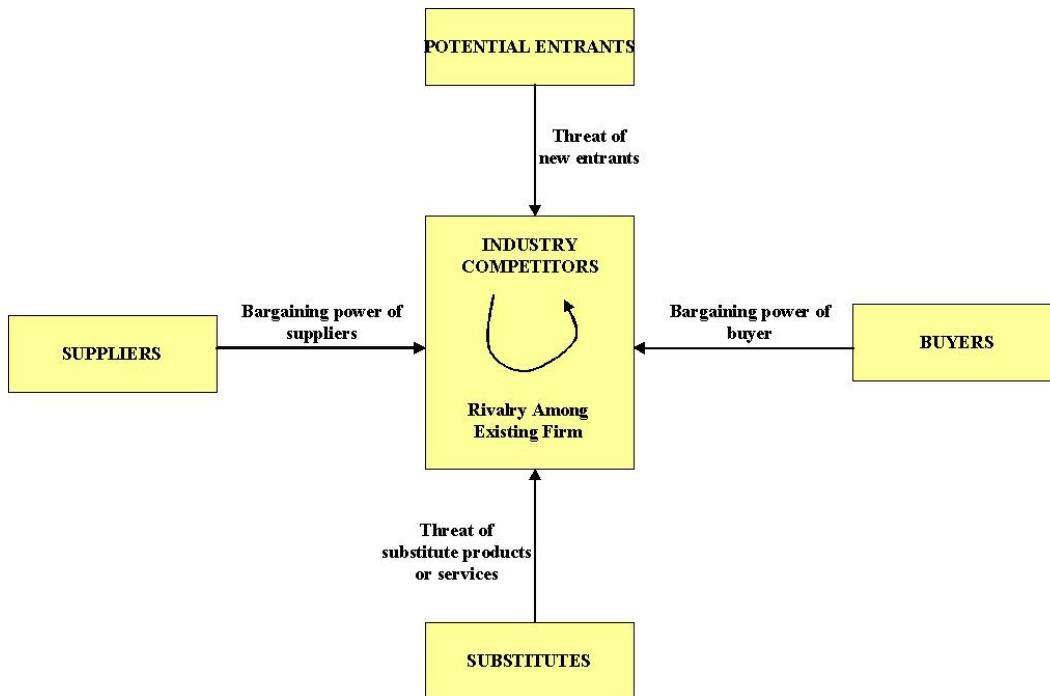


Figure 20: Forces Driving Industry Competition (Porter, 1980)

The following is an industry analysis for the Bedsheet Industry:

4.3.1 Threat of New Entrants

It is important to identify new entrants because:

- I. They threaten the market share of existing competitors.
- II. They bring additional production capacity – hold consumers' prices down, resulting in lower returns.

In the sheeting market, there are several barriers to entry that make it **difficult** for firms to enter into the market. Some of these are listed below:

- Textile companies are investing a lot of money in research and development. For instance, sheets like WestPoint Stevens's Precious Sleep X-Static fiber sheets, Martex Convertibles® reversible sheets and Natural Stretch® sheets or Springs' *Sleepology Collection* or Pillowtex/Fieldcrest-Cannon's *Snug & Savvy*® sheets are all patented, and the firms own rights to manufacture and/or license them. These brands have now penetrated the market and have recognition among customers. For new firms to enter into this market, **high capital investments are required** in order to create new innovative products.
- In order to reduce costs, manufacturers have to be up-to-date with the latest technology. Currently, the U.S. sheeting manufacturers are equipped with state-of-the-art machines for fiber, yarn, textile, dyeing & finishing, cut & sew, labeling and packaging processing. These machines help keep the costs low, which helps them in competing against low-cost overseas manufacturing. This also increases the capital requirements to enter into the industry.

- New WTO quota free policies on sheeting products starting January 1st, 2005 have encouraged manufacturers to move their own manufacturing overseas, thus causing the U.S. sheeting manufacturing to dramatically decrease.
- Mass merchandisers are the highest selling distribution channels for sheeting and other home textile products. Consumers are tending towards low-cost products. This shows that the majority of the consumers are willing to pay no or very low switching costs for a higher value product. This creates another barrier for new entrants.

4.3.2 Bargaining power of Buyers

The bedsheet market is not a monopsony – a market in which there are many suppliers and one buyer – but still the number of low-cost manufacturers is a lot more than the number of buyers and retailers. This makes the buyers or retailers more powerful. The bargaining power of buyers/retailers in the U.S. textile industry is high because:

- Mass merchandisers sell to the majority of the market. Mass merchandisers' sales exceeded \$3.3 billion of the \$8.3 billion bedding industry. This gives them more power over the prices of the products since they are buying a significant portion of the bedsheets from the industry. Nowadays, mass merchandisers like Wal-Mart and Target ask for the cost of the product with the product specification. This is creating a lot of competition in the market solely based on cost. The only exit strategy for the manufacturers/suppliers out of this is by creating new and improved products and pushing them into the market (Earley, 2005).
- Buyers nowadays are becoming more and more proactive. Walmart, Target, Bed Bath & Beyond, Linens N Things and other department stores are creating their

own private brands and are going directly to off-shores manufacturers, cutting the middlemen. This gives them an opportunity to integrate backwards into the supply chain and thus can become a threat for the manufacturers/suppliers.

- Any retailer can always switch to a lower cost supplier for the same product.

4.3.3 Bargaining power of Suppliers

In the past few years, there is a rapid evolution in imported sheets. They accounted for 54 percent of U.S. sheet consumption during the first quarter of 2005 versus 31 percent during 2004's first quarter (Seminar, 2005). This shows that the buyers are moving overseas and the suppliers have to compete with the low-cost manufacturing overseas. The bargaining power of the suppliers is low or weak for the sheeting industry due to the following reasons:

- Bedsheets products are being standardized, thus increasing the number of suppliers.
- Consumers are purchasing commodity products. For example, a private brand at Linens' N Things called LNT Home offers full, queen and king size sheet sets of higher than 250 thread count, for a price range of \$59.99 - \$99.99, whereas, Liz Claiborne sheets sets for the same size and quality range from \$129.99 - \$179.99 (**Appendix 6**). The majority of the consumers prefer quality over looks and price over brand name. This makes the private labels more appealing to the consumer.
- Manufacturers like Springs are selling their own brands in their own outlet stores. There are not many of these stores and thus very low market penetration. It is hard for Springs to integrate forward in the supply chain and become a buyer in order to support its own manufacturing capacity. The sales through the outlet stores are

not high enough to fulfill the production capacity and thus making it difficult to integrate forward in the supply chain.

4.3.4 Rivalry among existing firms

Rivalry among existing U.S. textile firms, specifically in bedsheets, is **high** or intense.

This is due to the following reasons:

Table 19: Rivalry among existing firms

Industry Characteristics	Examples in the bedsheet industry
1. Market growth	The bedsheet industry has had a slow and uniform market growth in the past five years. This causes the firms to fight for market share, thus increasing the rivalry
2. Fixed costs	Fixed costs (labor, energy, supplies, etc.) for the U.S. sheeting manufacturers are higher than the costs overseas. In order for the firms to attain the lowest unit costs, the firm must produce near capacity, which it will have to sell to the market which would result in increased rivalry. For instance, Springs must manufacture to capacity in order to compete against competitors like Franco Industries who are mostly outsourcing their products. Thus increases the competition among the suppliers to fight for the market share.
3. Product Differentiation	Product differentiation is low for the bedsheets products in the U.S. The majority of consumers are buying low-cost products – whichever brand it might be. This causes higher levels of rivalry among the firms. There is also a significant amount of brand recognition in the

	<p>top small portion of the industry: Spring's Wamsutta vs. WestPoint Steven's Natural Stretch™ sheets have customers with brand loyalty which tends to constrain rivalry</p>
<p>4. Industry Shakeouts</p>	<p>Springs is attempting to exit the window covering business in order to concentrate more on the bedsheet industry. This causes the other firms like WestPoint Stevens a threat of a stronger competitor with more concentrated efforts to survive in the sheeting industry.</p>

4.3.5 Threat of Substitute Products

Threat of substitute products in the bedsheet industry is very low because the domestic sheeting is a commodity product and will not change.

CHAPTER 5: DISSCUSSION & CONCLUSION

Prices drive all the aspects of the bedsheet industry. According to the analysis, the U.S. bedsheet industry requires changes in order to survive in the changing world. Some of the conclusions of this research are listed below:

- Increase in market share of the bedsheet industry in the U.S. has triggered higher competition among major manufacturers and retailers. This competition is driving prices placing strong pressure on U.S. manufacturers. In order to compete in these conditions, manufacturers are strategically outsourcing more and more from overseas through licensing, at the cost of U.S. jobs.
- Feedback channels from the consumers are not very effective or do not exist for the retailers. There are not enough opportunities for the consumers to go back to the retailers and say “Well, I came in and shopped at your store today, but I didn’t really like what you had to offer; have you ever thought about offering this.” This creates a communication gap between the consumers and the rest of the supply chain. In order to fulfill this communication gap, the industry funds companies like Cotton Incorporated who pushes product ideas to the manufacturers and the retailers based on consumer attitudinal research, behavioral surveys and industry trend forecast and advertise these product ideas to the consumers at the same time.
- Thread count has been a growing trend over the past couple of years due to lack of innovation in the sheeting area. A manufacturer can put a higher number on the sheet and the consumer would buy it thinking that it is better quality. It is all about the numbering game; it is a quantifier that the consumers somehow attach

themselves to, thinking that the higher number is obviously going to be better than a lower number but that is not always the case (Earley, 2005).

- The bedsheet industry has two different kinds of customers: 1) Customers who do not care about how much they spend on sheeting, so they are willing to pay for the highest thread count, 2) The other type of consumer is totally price driven. They know that it is just sheet and do not care what it looks like. Since the majority of the consumers are shopping based on cost and even if we offer them some sort of innovation, according to consumer reports they are not willing to pay a dollar extra. Thus the industry targets innovation to the higher end of the market, where the consumers are just a small portion of the total sales.
- The industry forecast is on average 18 – 24 months advance to the season, whereas, the manufacturing lead-time from idea to a final product in the shelf is on average 10 – 12 months (Lovejoy, 2005).

RECOMMENDATIONS FOR FUTURE RESEARCH

1. Using the direction in this research, other product markets of the Home Textiles Industry in the U.S. can be analyzed, such as bedspreads, towels, draperies, window coverings, etc.
2. Using the Industry analysis from this research, research can be undertaken in order to monitor the shifts in corporate-level and business-level strategies for the bedsheets manufacturers of the U.S. to survive in the constantly changing market.
3. Using the SWOT analysis of the U.S. sheeting products from this research, different business plans can be proposed to help match the product to the right customer.

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Appendix 1

Definition of Terms

Brand: A name, term, sign, symbol or design or combination of, intended to identify goods or services of one seller or group of sellers that differentiate the good from the competition (Kotler, 2003).

Blanket: These are made of various constructions and compositions which provide different degrees of warmth, softness and durability. They usually woven but can be knitted or stitch-knitted. They may be composed or of blends of cotton, wool, nylon, acrylic or polyester (Raul, 1998).

Combed cotton: During the spinning process, fibers are put through an additional straightening process until short fibers or noils are removed by fine toothed combs. A cleaner, more uniform and lustrous yarn results from this process (Raul, 1998).

Coated fabric: A flexible material composed of a fabric and any adherent

polymeric material applied to one or both surfaces.

Comforter: A bedcovering assembly, consisting of insulating filler secured between two layers of fabric, used primarily to reduce heat loss.

Compact Yarns: Compact yarns are a more compact version of the ring spun yarns. They are more expensive and are popular for their: higher tenacity, lowest hairiness, higher abrasion resistance and greater brilliance of color due to intensive dye penetration (Nikoliaë, Stjepanoviè, Lesjak, & Štritof, 2003).

Count: In woven textiles, the number of warp yarns and filling yarns per unit distance as counted while the fabric is held under zero tension, and is free of folds and wrinkles.

In knitted fabrics, the number of wale loops and course loops per 25 mm.

Distribution channel: The route that a product follows from the raw material stage until it reaches the end consumer or user (Mueller & Smiley, 1997).

Egyptian cotton: A long-staple fine cotton grown chiefly in northern Africa (yourdictionary.com). The five long staple Egyptian cotton categories are; Giza 83, Giza 90, Giza 85, Giza 89 and Giza 86.

Exports: Includes all types of products shipped to foreign countries, or to agents or exporters for reshipment to foreign countries (US Census Bureau, 2004).

Fitted sheets: Fitted sheets are products usually made with boxed corners, sometimes elasticized with shape and size to conform to the contours of the mattress and used for covering the mattress on a bed (ASTM, 2005).

Flat sheets: A large rectangular fabricated product used for covering the mattress on a bed and used for sleeping on or under (ASTM, 2005).

Fineness: A relative measure of size, diameter, linear density, or mass per unit length expressed in a variety of units.

Flannel: A soft, medium weight plain or twill weave fabric, usually made of cotton with a napped finish on one or both sides. The raised surface provides a fluffy appearance and super soft, cozy feel.

Inventories: The quantity or value of finished goods, work in progress, and materials on hand (US Census Bureau, 2004).

Jacquard sheets: A weaving process invented by Joseph Jacquard in 1801 allowing complex and complicated patterns to be woven. The jacquard process allows for a textured finish, given the ability to use varying types of patterns and yarns in the same piece for a layered/dimensional effect. Every warp yarn acts like an independent harness.

Jersey: A plain knitted (circular or flat) cloth. It is elastic and may sag. It is

serviceable and drapes well. It is used for dress-goods, shirting, under-wear and bedding (Raul, 1998).

Mercerized cotton: A wet finishing process for cotton yarn or fabric which results in a stronger and more lustrous yarn that takes dye better with brighter, deeper colors.

Muslin: This is a coarse type of plain weave fabric made of carded cotton or polyester or cotton yarns (Raul, 1998).

Percal: A closely woven, plain weave, spun fabric made from both carded and combed yarns. Percale sheeting is the finest sheeting available. The high thread count gives the fabric a soft, silk-like feel. Used for sheets and bedspreads. Percale equals quality linens.

Pilling: The balling-up of fibers on the surface of some fabric notably in sweaters, suiting and/or sheeting (Raul, 1998).

Pima Cotton: Pima cotton is a generic name for extra-long staple (ELS) cotton

grown in the U.S., Australia, Peru and in very limited production in a few other locations around the world. Pima is from the *gossypium barbadense* species, compared to *gossypium hirsutum* to which upland cotton belongs. The primary differences between Pima (ELS growths) cotton and upland cotton are staple length and strength of the fiber. In the U.S., cotton is considered to be ELS or Pima if it is an inch and 3/8 or longer. Its strength and uniformity measurements are considerably higher than those of upland cotton.

Production: The total volume of products produced, including: products sold; [transferred products,] and product that undergo further manufacture at the same establishment (US Census Bureau, 2004).

Retail channel: Also referred to as marketing channel; sets of interdependent organizations involved in the process of making a product or service available for

use or consumption. Channels are structured according to pricing strategies. Examples include discount, mass, specialty channels (Kotler, 2003).

Self design: Small design structure during the weaving process. These designs are possible with a dobby head for the loom. Dobby and Brighton are some of the examples for self-design.

Sateen: A weave construction that has more yarn surface on the face of the cloth than other basic weaves giving a softer hand and more lustrous look. Also, cloth made with carded or combed yarns that are usually mercerized, and has a very smooth, lustrous surface effect that resembles satin.

Store brand/private label: Merchandise designed and produced by a retailer for distribution within its own organization (Mueller & Smiley, 1997), also referred to as private label, private brand, house brand and/or distributor brand.

Supima cotton: The name "Supima[®]" is a licensed trademark owned by Supima and its members. It is used to promote textile and apparel products made of 100% American Pima cotton, but is strictly controlled by the grower organization. The name "Supima" is an abbreviation for Superior Pima.

Tapestry weaves: A closely woven figured fabric of compound structure in which the pattern is developed by the use of colored yarns in the warp or in the weft or both; a fine binder warp and weft may be incorporated (*Textile Terms and Definitions*, 1975).

Thread Count: Thread count is the number of threads woven lengthwise and crosswise into one square inch of fabric. The higher the "thread count," the softer and luxurious the sheets are. Tighter weaves enhance comfort and durability of the substrate and thus get more expensive as the thread count increases.

Yarn Dyed cotton: A yarn made of cotton fiber that has been dyed (colored) before being converted into a fabric either through weaving or knitting.

Appendix 2:

Cotton Incorporated:

- Dana Poor – Manager of Home-trend forecasting (Cotton Incorporated)
- David Earley – Global Product Marketing manager (Cotton Incorporated)

Springs Industries:

- Tim Landers – Vice President, Bed Merchandising (Springs Industries)
- Leslie Gillock – Vice President, Brand Management
- Jennifer Scott – HR manager (Springs Industries)

[TC]?:

- Jim Lovejoy – Director of Industry Programs [TC]?

Profiles of Peoples Interviewed

Dana Poor – Manager of Home-trend forecasting (Cotton Incorporated)

- Phone interview on Wednesday March 30th, 2005
- Contact Info: 488 Madison Avenue, 20th Floor, New York, NY 10024
- Phone: (212) 413-8346, email: dpoor@cottoninc.com

Ms. Dana Poor has a BS in Apparel Production Management from Auburn University in Auburn, Alabama. Ms. Poor worked as the assistant product manager of knits and sweaters for SAKS Inc. Prior to that she worked as a fashion trend specialist for Cotton Incorporated in THE COTTONWORKS Fabric Library. Her current responsibilities include research for, and conducting of, seasonal color and trend forecast presentations for the home market. She also monitors trends in the home fashion market. She reports to Ms. Kathryn Novakovic, director of fashion marketing.

David Earley – Global Product Marketing manager (Cotton Incorporated)

- Interview on Monday March 28th, 2005 at Cotton Inc. head office
- Contact Info: 6399 Weston Parkway, Cary, NC 27513
- Phone: (919) 678-2343, email: dearley@cottoninc.com

Mr. David Earley was appointed as a Global Product Marketing manager in December 1999. He began his career with Cotton Incorporated in 1993 as a research technician in Fiber Processing, transferring to Fabric Development in 1996. He holds a B.S. degree in textiles from North Carolina State University. His division works directly with textile manufacturers and suppliers to provide hands-on support with product development and manufacturing challenges. He reports to Mr. Michael R. Tyndall, senior director, Global Product Marketing.

Tim Landers – Vice President, Bed Merchandising (Springs Industries)

- Interview on Wednesday May 11th, 2005 at Springs head-office (Fort Mill SC)

Time Landers holds a marketing degree from Arizona State University. He began his career with Springs in 1991 as a sales rep in Dallas for the Wamsutta division. He held successive sales positions in New York and Fort Mill with direct-account and corporate-buying-office responsibilities. He joined the Wamsutta merchandising organization in 1997 and was promoted to merchandise manager in 1998. In July 2004, he was promoted to vice president of bed merchandising with responsibility for all sheets and bedding products. He succeeds Harvey Simon, who was recently named president of basic bedding. He reports to Tom Gaffney, executive vice president and president of the bedding and soft window units.

Leslie Gillock – Vice President, Brand Management (Springs Industries)

- Interview on Wednesday May 11th, 2005 at Springs head-office (Fort Mill SC)

Jennifer Scott – HR manager (Springs Industries)

- Interview on Wednesday May 11th, 2005 at Springs head-office (Fort Mill SC)

Jim Lovejoy – Director of Industry Programs [TC]²

- Interview on Friday May 6th, 2005
- Interview location: [TC]² head office (211 Gregson Drive, Cary, NC 27511)
- Phone: 919-380-2184

Jim Lovejoy is the Industry Director for SizeUSA, the National Sizing Survey, using the 3-D body measurement system developed by [TC]². Prior to this assignment, Jim was the Project Director for the DAMA (Demand Activated Manufacturing Architecture) research project, which defined the soft goods supply chain and produced supply chain analysis tools. He also advises companies on how to obtain benefit from the supply chain research.

Jim’s prior positions include Director of Store Systems/Europe at IBM, Director of Quick Response Systems at IBM, General Manager of QRS, Inc. and Director of Sales Development and Support at British Telecomm North America.

Jim currently serves on the Board of Directors of SEAMS, the Association of Apparel Manufacturers, and is active on committees of the American Apparel and Footwear Association, American Apparel Producers Network and the Voluntary Inter-industry Commerce Standards Group.

Interview Questions

Cotton Incorporated:

1. What is the goal of Cotton Inc.? How is cotton better than synthetic fibers? What is your strategy to promote cotton as a value added product as compared to synthetic (cost-effective) fibers with same or similar properties? How do we push the real McCoy, Cotton over synthetics?

2. Is thread count an obsession nowadays among customers? It is an opportunity or a threat for the industry? WHY? Does Cotton Inc, has any studies relating to this? (Lifestyle Monitor or ongoing market reports)
3. How is the industry dealing with the thread count inflation issues? (ASTM standard – multi-ply yarns will be counted as one) What are/were cotton Incorporated efforts to deal with this situation?
4. Manufacturers are taking initiatives (proactive) and pushing new and better products into the market? Is pushing strategy always good? What is your opinion about allowing the customer to ask for (pull) products into the market? Also ask about the generic product development process in bedding products versus apparel items.
5. ‘Bedsheets and pillowcases’ is a \$2.5 billion (approx.) industry in U.S.? What are the manufacturers doing to have their piece of the pie? How cotton incorporated is assisting them?
6. What are the industry’s efforts in “adding value to the product”? For example, Natural Stretch™ sheets from WestPoint Stevens. Is this another effort to produce a differentiated product in order to survive in the market and compete with the low-cost standard manufacturing overseas OR is it an effort to make the customers less obsessed with thread counts? (March 21, 2005 issue of Lifestyle Monitor)
7. What is the long-term strategy of cotton inc. to continue the growth of the industry in U.S.? Technological advances?
8. Every time I go to a furniture store there is some kind of sale? Since mattress and sheets are complimentary products. So if mattress value goes down, sales go up and thus the sale for bedding accessory (e.g. Bedsheets) goes up? What is the industries’ approach to pursue this strategy? (due to the fact that beds and mattresses are cheaper (due to sales events), customers are willing to spend more on accessories, like bedsheets)
9. What is the industry’s strategy to ‘Educate the customer’, does it help? Comfort level goes up
10. How is the 2005 WTO policy affecting the manufacturing and distribution of cotton home textile products, especially bedsheets? Current inflation issue?
11. What should be the targeted lifetime of the product? Example, Replace it every two years? How does it effect the lead time for the manufacturing of the product? (From idea to finished substrate)

12. How do we shorten the turnaround time (lifetime) for the bedsheets? As turnaround time is decreasing people would buy more sheets more often than usual – more sales. What are the industry’s efforts to achieve this strategy? Ethics issue? We will promote what we want them to know?
13. Demographic changes – incorporate seasonal and annual change from apparel to sheets?
14. How do we make seasonal variety of fashionable sheets in order to lead in bedding trends?
15. ‘Eco-boomers’ and ‘Generation Y’ are the wealthiest American as compared to their parents? They need instant gratification? How can we get them what they want?
16. Being a home-trend forecasting manager OR global product marketing manager, what are the current issues that you are facing in the global market space?
17. Is there anything that you can tell me that might be useful for my thesis/research?
18. In conclusion, what do you think are the opportunities, threats, strengths and weaknesses of the home textiles industry?

[TC]2

1. How efficient in the current textile supply chain?
2. According to DAMA, the industry should be demand driven. What measures are being implemented to fulfill this purpose? (Surveys, focus groups – how to get feedback from customers)
3. Is Demand based supply chain always a good idea? Do the customers really know what they want? Why PULL strategy and not PUSH strategy? Or there should be a balance between pushing and pulling on products?
4. Is there a (collaborative) product development process in the sheeting industry that you know of? If not, you think if it’s a good idea?
5. What measures are being proposed in the DAMA project to reduce the pipeline time by 50%? (Where can we apply improvements in the supply chain) What measures should be taken by the sheeting manufacturers to optimize their supply chain?
6. What are the risks and benefits of collaborative soft-goods supply chain?

7. After the pipeline investigation in the DAMA project, it synchronization in the upper management was required and business practices have to change, not just the technological advances will help? What were these proposed changes?
8. Can you share the proposed Textile Industry Supply Chain business model with us for this research?
9. Why top-down approach? How is it better than demand activated approach? (Top-down = find what consumers are demanding and create products while optimizing the supply chain)
10. Collaboration efforts require sharing of more proprietary data and the companies don't trust each other. What is the motivation for the manufacturers to adopt a collaborative Supply Chain Model? (Competing with the low-cost overseas manufacturing, U.S. manufacturers need to join together and have a collaborative effort to improve the supply chain and lower their costs. But sharing data might not be something that everyone wants to do. This is a problem.)

Springs Industries

1. Is there a standard "Generic Product Development Process" for the sheeting or bedding industry? What is Springs Product Development Process? What is the lead-time for sheets from idea to final product – is it important?
2. When does brand come into the product development brief? Where is it positioned in the company's organizational structure?
3. Marketing Strategies:
 - a) What is 'Springs' marketing strategy for sheeting products? (PUSH, PULL or BOTH)
 - b) What are your efforts to exploit the most profitable products and SBUs? (Wamsutta, Springmaid, Apprentice)
 - c) How are these strategies changing in order to face the upcoming price driven challenges in U.S.?
4. How 'Springs' has characterized its market into different customer segments? For instance, 'Eco-boomers' and 'Generation Y' are the wealthiest American as compared to their parents. They need instant gratification. What are 'Springs' efforts to attract and communicate to their customers?
5. What are 'Springs' efforts to create new and value added products? Is the customer willing to pay more for a better product? (100% cotton wrinkle free sheets)

6. What are 'Springs' efforts to make seasonal variety of fashionable sheets in order to lead in bedding trends? How to incorporate seasonal and annual changes from apparel to sheeting? (From commodity to differentiated products)
7. What is the ratio of the in-house and outsourced production capacity? (From where and what kind – aesthetics) What kind of inventory system do you use?
8. What is the pricing model of the products offered by 'Springs'? How is it determined? Is it different for different products, markets, geographical locations and/or brands?
9. What kinds of strategic alliance does 'Springs' have from retailers and other manufacturers? Overseas and in U.S.? (Private labels vs. Company Brand)
10. U.S. is now considering import safeguards on textiles from China. Is it good news for 'Springs'? How?
11. Some of your competitors are going through some rocky times lately. What do you think that makes a big difference to keep your company moving ahead and prevent those circumstances? (Given the expertise in your area)
12. Being a VP, brand management OR bed merchandising, what are the current issues that you are facing in the global market space? What are the current manufacturing issues that Springs is facing right now?
13. In conclusion, what do you think are the opportunities, threats, strengths and weaknesses of the home textiles industry in U.S.?

Appendix 3

Sheet Size Chart

Table 20: Bedsheet size chart

Bed Size	Fitted Sheet Mattress Size	Flat Sheet Mattress Size	Pillow Size
Twin	39 x 75	66 x 96	20" x 26"
Twin XL	39 x 80	66 x 96	20" x 26"
Full / Double	54 x 75	81 x 96	20" x 26"
Queen	60 x 80	90 x 102	20" x 30"
California or Western King	72 x 84	108 x 102	20" x 36"
Dual or Eastern King	78 x 80	108 x 102	26" x 26"

Source: ASTM standards for domestic sheeting

Appendix 4

Home Textile Industry Stats

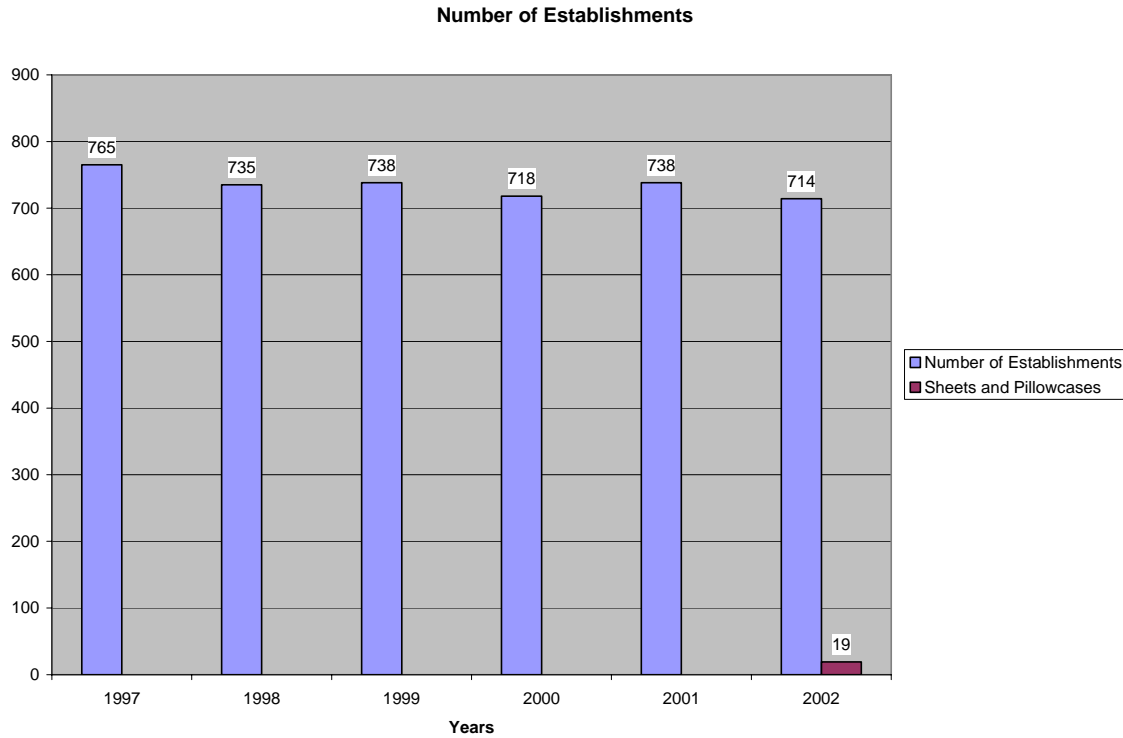


Figure 21: Number of Establishments

Source: (2002 Economic Census: Manufacturing Industry Series, 2004)

The total number of home textiles products mills has decrease from 765 in 1997 to 714 in 2002. Only 19 of these establishments were manufacturing sheets and pillowcases. There was approximately a 7% decrease in the manufacturing facilities which shows that the manufacturing went down during 1997 and 2002.

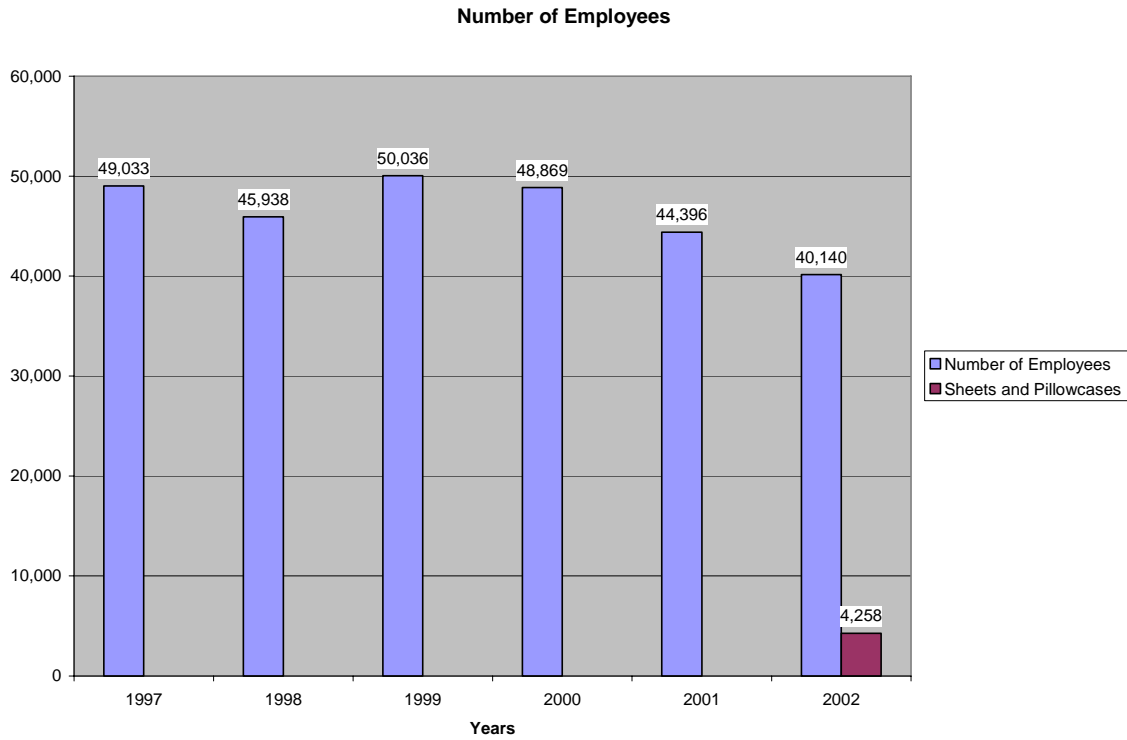


Figure 22: Number of Employees

Source: (2002 Economic Census: Manufacturing Industry Series, 2004)

The total number of home textiles products mills’ employees has decrease from 49,033 in 1997 to 40,140 in 2002. 4,258 of these employees were working in the manufacturing of sheets and pillowcases. There was approximately an 18% decrease in the number of employees at home textiles products’ manufacturing facilities in U.S. during 1997 and 2002.

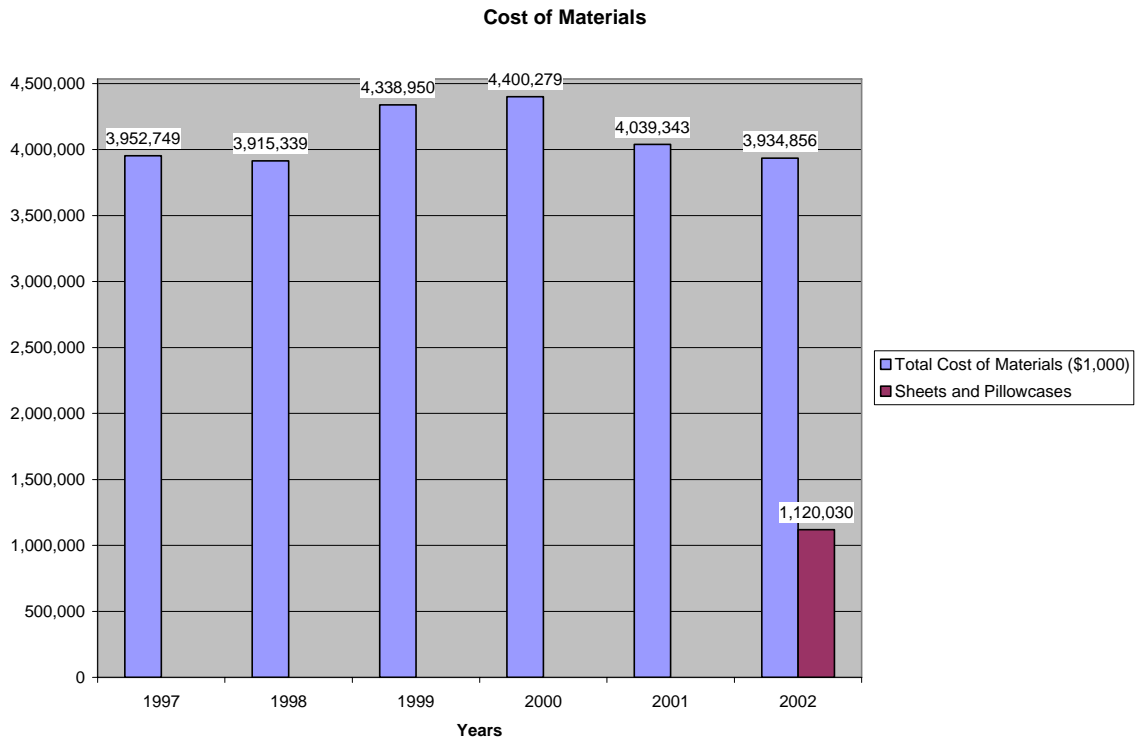


Figure 23: Cost of Materials

Source: (2002 Economic Census: Manufacturing Industry Series, 2004)

The total cost of raw material for the U.S. home textiles industry only had a slight decrease from \$3.95 billion in 1997 to \$3.93 billion in 2002. The total raw material cost for sheets and pillowcases in 2002 was approximately \$1.12 billion. Thus, there was no significant decrease in the raw materials' cost.

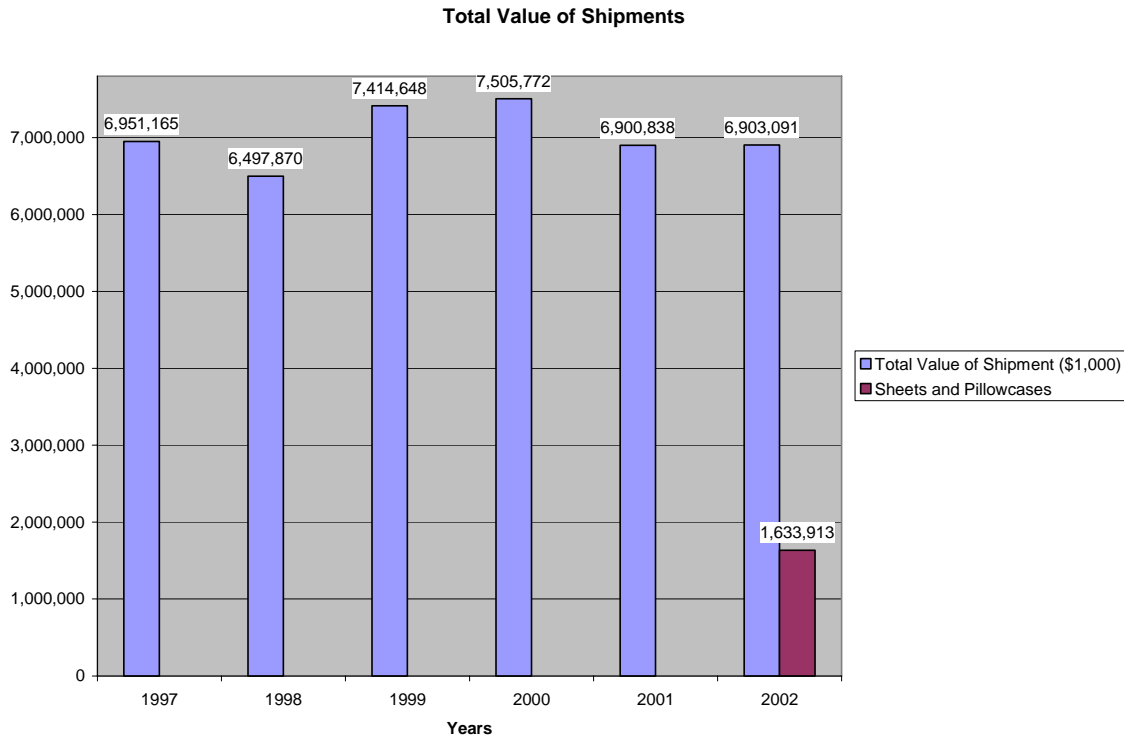


Figure 24: Total Value of Shipment

Source: (2002 Economic Census: Manufacturing Industry Series, 2004)

The total value of products shipped from U.S. home textiles manufacturers slightly decreased from \$6.95 billion in 1997 to \$6.90 billion in 2002. It reached a peak in 2000 at \$7.50 billion. The biggest increase was during 1998 and 1999 when the total value of shipments was increased by 14%.

Appendix 5:

U.S. Manufacturers

Springs Industries, Inc.

Springs Industries is the leading manufacturer and supplier of bedsheets in the U.S. The company was founded in 1887 with headquarters in Ft. Mill, SC. The current CEO and chairman of the company is Crandall Close Bowles. Springs Industries supplies leading retailers with a complete line of coordinated home furnishings designed to simplify home decorating for every consumer. The company also produces and markets bed and bath products for institutional and hospitality customers, home sewing fabrics, and baby bedding and apparel products. Springs used to be a publicly owned company but in 2003 it was privatized, thus the latest financials are not available.

Springs' major brands are Wamsutta®, Springmaid®, Regal®, Beaulieu®, Graber®, Bali®, Nanik®, Dundee®, Wabasso®, and Texmade®. Major licensed brands are Burlington House®, American Lifestyle®, Kate Spade, Court of Versailles, Liz At Home®, Harry Potter®, mary-kateandashley™, Coca-Cola®, Serta®, and NASCAR.

Due to the increased outsourcing, Springs has downsized many U.S. plants and jobs in the past few years.

According to Springs, its products are sold primarily through the company's own sales force to retailers, including catalog operations, department stores, home improvement stores, mass merchandisers, national chains, and specialty stores.

Some of the competitors of Springs are: Avondale Incorporated, Burlington Industries, Carter's, Coats Holdings, Crown Crafts, Dan River, Galey & Lord Swift Denim, Gerber

Childrenswear, Hollander Home Fashions, Keeco, Louisville Bedding, National Textiles, Newell Rubbermaid, R. B. Pamplin and WestPoint Home.

Sources: (*Springs Industries*, 2005), (*Datamonitor Company Profile Authority*, 2005), (*Hoover's Company Records*, 2005)

WestPoint Stevens, Inc.

WestPoint Stevens is the #2 manufacturer and supplier of bedsheets in the U.S. WestPoint Stevens is the nation's premier manufacturer and marketer of bed and bath home fashions: mattress pads, feather and fiberbeds, bed pillows, sheets, towels and bath accessories, comforters and down comforters, blankets and bedding accessories. The current CEO of the company is M.L. Fontenot.

Some of the brands that WestPoint Steven offers are: Atelier Martex™, Baby Martex, Chatham, Grand Patrician, Lady Pepperell, Luxor, Martex, Patrician, Stevens, Utica and Vellux. The company also has licensed brands: Disney Home, Glynda Turley, Ralph Lauren Home Collection and Sanderson.

Costco, Federated, J. C. Penney, Kmart, Target, and Wal-Mart account for more than half of WestPoint Home's sales.

Some of the competitors of WestPoint Stevens are: Burlington Industries, Croscill, Crown Crafts, Dan River, F. Schumacher, Hollander Home Fashions, Louisville Bedding, Pacific Coast Feather and Springs Industries.

The company had total revenue of \$1,642.2 million in 2003.

Sources: (*WestPoint Stevens*, 2005), (*Datamonitor Company Profile Authority*, 2005), (*Hoover's Company Records*, 2005)

Dan River, Inc.

Dan River, Inc. is the #3 manufacturer and supplier of bedsheets in U.S. The company makes apparel fabrics, including material for men's shirts, and home fashion items, such as comforters, draperies, pillowcases, and sheets. Home fashion items are sold through high-volume retailers; Kmart and Wal-Mart are the firm's two biggest customers. Its children's bedding features characters from Looney Tunes, Blue's Clues, and more. Its woven cotton and yarn-dyed fabrics, such as oxford cloth, are used in products sold under the Lands' End and Van Heusen brands. Chairman Joe Lanier owns about 30% of the firm, which emerged from Chapter 11 (filed March 2004) in February 2005.

Mr. Shea (formerly CFO of the company) took over as CEO in 2004. As part of Dan River's reorganization, it shut down factories in Georgia, South Carolina, Tennessee, and Virginia and reduced its workforce from 5,400 (at the start of 2004) to 3,100 (at the time of its emergence from Chapter 11).

Some of the competitors of Dan Rivers, Inc. are: Burlington Industries, Croscill, Crown Crafts, Guilford Mills, Hollander Home Fashions, Springs Industries and WestPoint Home.

Some of the Home Fashions brands of Dan River Inc. are: Alexander Julian AT HOME®, Lilly Pulitzer®, Supreme Dimensions™, Marquis Home Collection™ and Dan River® Bed in a bag décor™.

The company had total revenue of \$477.4 million in 2003.

Source: (*Dan River, Inc.*, 2005), (*Hoover's Company Records*, 2005)

U.S. Retailers

Bed, Bath and Beyond, Inc.

Bed, Bath and Beyond, Inc. is the #1 home textiles specialty store in the U.S. It's the #1 superstore domestics retailer in the US (ahead of #2 Linens 'n Things), with about 660 stores in 44 states and Puerto Rico.

The retailer's decentralized structure allows store managers to have more control than their peers at other retailers (and the company has less manager turnover). The debt-free company cuts costs by locating its stores in strip shopping centers, freestanding buildings, and off-price malls, rather than in pricier regional malls. To cut costs further, Bed Bath & Beyond's vendors ship merchandise directly to the stores, eliminating the expense of a central distribution center and reducing warehousing costs.

The current CEO of the company is Warren Eisenberg.

Some of the competitors of Bed, Bath and Beyond, Inc. are: Bombay Company, Burlington Coat Factory, Cost Plus, Dillard's, Euromarket Designs, Federated, IKEA, J. C. Penney, Kmart, Lillian Vernon, Linens 'n Things, May, Pier 1 Imports, Ross Stores, Saks Inc., Sears, Target, TJX Companies, Wal-Mart and Williams-Sonoma.

From February 2004 to February 2005, the company made total revenue of \$5,147.7 million.

Source: (*Bed Bath & Beyond Inc.*, 2005), (*Hoover's Company Records*, 2005)

J. C. Penney Corporation

J. C. Penney. is the #1 home textiles department store and catalog in U.S. The retailer's chain of more than 1,000 JCPenney department stores in the U.S. and Puerto Rico, has found itself squeezed between upscale competitors and major discounters (Target, Wal-Mart).

The retailer's new CEO is Myron Ullman, an experienced retail veteran and former chief executive of Macy's.

JCPenney Home Collection is one of the private label bedsheets for the department store. Some of the competitor of JC Penney are: American Retail, Bed Bath & Beyond, Belk, BJ's Wholesale Club, Comerci, Costco Wholesale, Dillard's, Eddie Bauer Holdings, Federated, Kmart, Kohl's, Lands' End, May, Nordstrom, Otto, Ross Stores, Saks Inc., Sears, Signet, Stage Stores, Target, TJX Companies and Wal-Mart.

The company made total revenue of \$18,424 million in the fiscal year ending January 2005.

The JC Penney Corporation operates a chain of department stores and is also a catalog and e-commerce retailer. The company operates in 49 states in the US, Puerto Rico and Brazil. The company recorded strong catalog/internet sales, but faces increasing pressures from rising price awareness among consumers.

Sources: (*J. C. Penney Corporation, Inc., 2005*), (*Datamonitor Company Profile Authority, 2005*), (*Hoover's Company Records, 2005*)

Wal-Mart Stores, Inc.

Wal-Mart is the #1 home textiles mass merchandiser in U.S. Bigger than Carrefour, Metro AG, and Royal Ahold combined, it is the world's #1 retailer, with more than 5,700 stores, including some 1,350 discount stores, nearly 2,000 combination discount and grocery stores (Wal-Mart Supercenters in the US and ASDA in the UK), and 550 warehouse stores (SAM'S CLUB). Nearly 75% of its stores are in the US, but Wal-Mart is expanding internationally; it is the #1 retailer in Canada and Mexico. It owns 42% of Japanese supermarket chain SEIYU. Wal-Mart also has operations in Asia, Europe, and South America.

Wal-Mart is famous for its low prices and breadth of merchandise. The company made total revenue of \$ 285,222 million in the fiscal year ending January 2005.

Sources: (Datamonitor Company Profile Authority, 2005), (Hoover's Company Records, 2005)

Appendix 6:

Bed, Bath and Beyond, Inc. in-store sheeting brands

- As of February 10, 2005
- 100% cotton sheets only
- Woven Sheets (no jersey knits)
- Source: <http://www.bedbathandbeyond.com>

Table 21: Bed, Bath and Beyond, Inc. in-store sheeting brands

Type	Brands	Sizes					Thread Count				Price Range
		Twin	Full/ Double	Queen	King	Special	< 180	180	200 ~ 250	> 250	
Solids	B. Smith				√					√	\$69.99*
	Frette			√	√				√		\$120.00 - \$210.00
	Grand Patrician	√	√	√	√					√	\$9.99 - \$90.99*
	Nautica	√	√	√		√				√	\$19.99 - \$54.99*
	Sealy			√	√	√				√	\$129.99 – \$149.99*
	Wamsutta	√	√	√	√	√			√	√	\$9.99 - \$299.99*
	Westpoint Stevens	√	√	√	√					√	\$24.99 - \$69.99*
	Others	√	√	√	√	√			√	√	\$19.99 - \$249.99*
Prints	Cheri Blum			√	√				√		\$71.99 - \$83.99*
	Croscill	√	√	√	√				√	√	\$49.99 - \$179.99*
	Grand Patrician	√	√	√	√					√	\$59.99 – \$119.99*
	Liz Claiborne	√	√	√	√				√	√	\$59.99 – \$179.99*
	Modern Classics			√	√					√	\$129.99 – \$149.99*
	Nautica	√	√	√	√	√			√	√	\$12.99 - \$69.99
	Nicole Miller	√	√	√	√				√	√	\$69.99 – 199.99*
	Posh			√	√					√	\$84.00 – \$109.99*
	Raymond Waites			√	√					√	\$99.99 - \$119.99*
	Thomasville	√	√	√	√				√		\$49.99 - \$139.99*
	Wamsutta			√	√	√				√	\$99.99 - \$134.99*
Others	√	√	√	√	√			√	√	\$9.99 - \$149.99*	
Flannel	Nautica	√	√	√	√	√	N/A	N/A	N/A	N/A	\$14.99 - \$39.99*
	Others	√	√	√	√	√	N/A	N/A	N/A	N/A	\$9.99 – \$79.99*

* represents that the products includes sheet sets (one flat sheet, one fitted sheet and two pillowcases), thus price range maybe higher than that of individual sheets

- In solids, there are 100% cotton, blends of cotton and other natural fibers.
- In prints, it's usually 100% cotton.
- In flannel, there are 100% cotton and other natural fibers.

Linens ‘n Things in-store sheeting brands

- As of February 14, 2005
- 100% cotton sheets only
- Woven Sheets (no jersey knits)
- Source: <http://www.lnt.com>

Table 22: Linens ‘n Things in-store sheeting brands

Type	Brands	Sizes					Thread Count				Price Range
		Twin	Full/ Double	Queen	King	Special	< 180	180	200 ~ 250	> 250	
Solids	Divatex			√	√					√	\$39.99 - \$49.99*
	Linens N Things			√						√	\$49.99*
	Liz Claiborne		√	√	√					√	\$129.99 - \$179.99*
	LNT Home		√	√	√					√	\$59.99 - \$99.99*
	Mixed Brand Codes			√	√					√	\$59.99 - \$99.99*
	Scent Sation, INC				√					√	\$49.99*
	Veratex			√	√					√	\$99.99*
Wamsutta	√	√	√	√	√			√	√	\$9.99 - \$139.99*	
	Westpoint Stevens Patrician			√	√					√	\$119.99 – 139.99*
Prints	LNT Home				√					√	\$49.99*
	Wamsutta		√	√	√					√	\$6.99 - \$26.99
Flannel	LNT Home					√	N/A	N/A	N/A	N/A	\$9.99 - \$19.99
	Waverly					√	N/A	N/A	N/A	N/A	~\$9.99

* represents that the products includes sheet sets (one flat sheet, one fitted sheet and two pillowcases), thus price range maybe higher than that of individual sheets

- In solids, 100% cotton
- In prints, 100% cotton and poly-cottons
- In flannel, 100% cotton