

## **ABSTRACT**

JONES, MICHAEL ANDREW. Factors Affecting Governmental / Trade Disparities Among Nations. (Under the direction of Dr. George Hodge and Dr. Robert Barnhardt.)

As globalization takes hold in international trade, companies are impacted by factors that are often beyond the scope of their influence. These trade factors directly impact the competitiveness of companies in global markets. Global markets are becoming the norm as communication, technology, and infrastructure within developing countries improve. Textile and apparel companies are searching for the optimal locations to produce various products so that they will have the proper balance of quality and cost, in an attempt to increase profitability. This research focused on the bottom weights and bed/bath markets. These markets were selected because they have a significant manufacturing presence in the United States, and they possess different supply chain structures.

This study used a two-phase mixed methods approach in order to gain secondary data from available resources and primary data from in-depth interviews with industry executives. Eighteen leading companies in the bed/bath and bottom weights markets were interviewed with 33 respondents whose average experience was 25 years in the industry. Comparisons and contrasts were analyzed regarding the two markets.

The five trade factors that were analyzed in this research were: 1) currency exchange rates, 2) environmental and social compliance, 3) Intellectual Property theft, 4) federal government subsidies, and 5) employee benefit plans.

All of the trade factors influence companies in international markets. American companies are at a competitive disadvantage with offshore companies in these markets due to these five trade factors. Government policy and regulations put tremendous strain on domestic textile and apparel companies to remain competitive in the dynamic global textile industry. This study is one section of a three part research project regarding economic competitiveness in the global textile and apparel industry. The three studies are:

- *“Factors Affecting Governmental / Trade Disparities Among Nations,”* by Michael A. Jones.
- *“Market Competitiveness in the Global Textile Supply Chain: Examination of Supply Chain Configurations,”* by C. Hope Nowell.
- *“Economic Competitiveness in the Global Textile Supply Chain: An Examination of Logistics Cost Structures,”* by Lynsey A. Cesca.

# **FACTORS AFFECTING GOVERNMENTAL / TRADE DISPARITIES AMONG NATIONS**

by

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## **BIOGRAPHY**

The author, Michael Andrew Jones, was born in Simpsonville, SC on May 16, 1979. He is the son of Tip and Delores Jones. Michael grew up in Simpsonville, SC with his older brother Tildon, and his twin brother David. He graduated from Hillcrest High School in 1997 and went on to study at Erskine College in Due West, SC. He earned a Bachelors of Science in Business Administration with a focus in Management in 2001. Upon graduation began working for Milliken and Company as a Product/Process Improvement Specialist. Over a two year span, he also worked as a department manager and a Milliken Performance System Specialist. In the fall of 2003, Michael was awarded an Institute of Textile Technology Fellowship, through Milliken and Company, to attend the North Carolina State University College of Textiles to pursue a Masters of Science degree. He is currently completing the requirements for his graduate degree in Textile Management and Technology. Michael will return to Milliken and Company in Greenville, SC where he will be a Project Manager over a new manufacturing installation. He plans to pursue a career in supply chain management and global economic competitiveness.

## **ACKNOWLEDGEMENTS**

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## **CHAPTER I**

### **INTRODUCTION**

Political, legal, environmental, currency, intellectual property, and employee benefit plans are several factors that have a significant effect on a company's competitiveness in international markets. As free trade becomes a reality, U.S. companies found themselves under increasingly more pressure from foreign competitors. The U.S. textile and apparel industries are no exception. Certain factors put tremendous strain on American companies and their ability to remain competitive. The companies may or may not have control of certain factors, as governmental and trade laws are imposed.

As Stock described, "The competitive environment for manufacturing firms has changed drastically in the past ten to fifteen years. Customers in geographically dispersed, emerging and established global markets now demand higher quality products at lower cost in a shorter time. As a result, firms have been forced to reorganize their manufacturing activities and realign their global strategies" (Stock, 1999, pg 37). Companies are changing their global strategies to account for these factors.

It is important to understand how developing countries have impacted trade. Developing countries have seen a growth in GDP over the last couple of years and that trend is expected to continue. One of the main reasons for this phenomenon are the growing demands, both domestically and foreign. As trade liberalization becomes more common, the GDP increases in Asia's developing countries will likely

expand the most. East and South Asian countries have set their economic policies so that they are geared towards expansion. They accomplish their goal through public investment in infrastructure, and creating currency exchange rates that benefit their domestic economies (Ricupero, 2004).

According to Roberts (2004), labor forces are more productive when companies have capital to spend, and capital is more productive when there is plenty of labor available. That concept would support the idea that third world countries have seen huge increases in GDP as companies invest there. Conversely, the labor forces from the developing countries have started moving to the areas where technology and capital are present in order to improve their lifestyles. This scenario is what Roberts calls “absolute advantage”.

January 1, 2005 marked the start of a new era in international trade. Per the World Trade Organization (WTO), all quotas were lifted on exports, creating a near free trade environment with WTO member countries. It created near free trade due to safeguards and other temporary programs put in place in markets that were deemed as having major disruptions. The new global market may be especially detrimental to the American textile and apparel industries, which have already realized a dramatic shift towards international sourcing in developing countries. According to the National Council of Textile Organizations, 328 textile plants have closed in the U.S. since 1997. These plants belonged to both large and small organizations. Internationally, some have speculated as to what may happen as a result of globalization. The ITC issued a report to the U.S. Trade Representative in 2003 stating that although the elimination of quotas was predicted to result in an

increase in global trade, the impact is not likely to be the same from country to country and region to region. For all trading countries, quota elimination represents both an opportunity and a threat. The opportunity lies in the fact that there are no market restrictions. The threat is due to the fact that the markets are open to intense competition because of the lack of restraints (Kathuria and Bhardwaj, 2003).

Since the U.S. has such an increasing trade deficit, its economy attracts vast amounts of demand from foreign countries to deliver goods. The developing countries have eagerly ramped up production in order to support this demand stimulus that the U.S. has provided, and some Asian countries have increased not only their exports but their imports as well. The U.S. has only experienced strong gains in imports, with far less gain in exporting of products (Ricupero, 2004). World textile trade rose from \$122.9 billion to \$136.9 billion from 2002 to 2003, representing approximately a ten percent increase. China led apparel exporting in 2003 shipping \$52 billion in goods. China owned about 28.1 percent of the global apparel market share in 2003. That figure is up 8.8 percent since 1995 (Zarocostas, 2004).

As more companies adjust their global strategies to account for these trends, trade and governmental factors surface as vital components for decision making. With global trade liberalization, trade disparities create challenges for U.S. textile and apparel industries. Some key factors that affected the textile and apparel trade environment are:

- Environmental and social compliance at textile and apparel locations

- Currency/exchange rates manipulated by countries trading textiles and apparel
- Government subsidies
- Intellectual Property (IP) theft of technology and design of textile products
- Employee benefits plans provided by textile and apparel companies

To date, no study quantifies the impact of trade disparities on companies involved in the textile and apparel industry.

### **PURPOSE OF THE STUDY**

The purposes of the study are to a) examine the impact of trade factors on U.S. textile and apparel companies, and b) quantify the results so that those companies can benefit from understanding the industry environment. The research will design a model that accounts for trade factors creating disparities, and explain the interpretations of those disparities.

Specifically, this two-phase, sequential mixed methods study will explore existing trade law and country-specific data, and quantify the secondary research with primary data collected from interviews. The first phase will be a qualitative exploration of government and trade laws by collecting data from international trade studies and government documents. Themes from this qualitative data will then be developed into an instrument so that research questions can be tested that compare companies in the textile and apparel industry (Creswell, 2003). The results of the primary data collection will present ordinal and interval measurements of countries involved in the bed-bath and bottom weights markets. A table will be created from

those data which will help decision makers select potentially beneficial countries to trade with in those markets. The countries that will emerge as most desirable to trade with will be those with less impact from the trade disparities being studied.

Specific research questions were established to guide the mixed methods research:

1. What are the currency issues that exist in international trade?
  - How do countries manipulate currencies to benefit their economy?
2. What are the impacts of environmental and social compliance on textile and apparel companies?
3. What is the impact of intellectual property theft in global markets?
4. How has federal government support affected the textile and apparel industry?
  - How do countries benefit from direct state subsidies?
5. What impact do employee benefits plans have on companies?
  - How much of an effect do health care and retirement plans have on companies that must fund their own programs?
6. Which countries are the best trade partners in bed/bath and bottom weights textiles?
  - How can a company quantify various countries in terms of trade factors?
7. Which regions support the bottom weight and bed/bath markets?
8. What are the global factors that affect a company's ability to be competitive in the bottom weight and bed/bath markets?



## SIGNIFICANCE OF THE STUDY

The study will provide a comprehensive examination of trade disparities impacting global textile and apparel businesses. The research will provide a qualitative analysis of those trade disparities and empirical data from interviews to create a model. The model can be used as a tool for U.S. companies to make better decisions when entering or exiting the bottom weight and bed/bath markets. The research will present the actual dynamics of trade in the global textile and apparel industry. The research will also provide both ordinal and interval measurements to determine which countries are most desirable to trade with, according to industry leaders. These measurements will be organized in a matrix that can be used as an instrument for decision makers as they formulate a global strategy. The study will provide insight into whether or not industry leaders' perceptions of the global textile and apparel supply chain match the actual situation as described by the literature.

This study was conducted in conjunction with two other studies that utilized the same sample companies. The three studies resulted in three separate graduate thesis projects, but all were related to economic competitiveness in the global textile and apparel industry. Specifically, the studies all focused on the bottom weight apparel and bed/bath home textiles markets. The resulting studies are listed below.

- *“Market Competitiveness in the Global Textile Supply Chain: Examination of Supply Chain Configurations,”* Hope Nowell, 2005.
- *“Economic Competitiveness in the Global Textile Supply Chain: Examination of Logistics Cost Structures,”* Lynsey Cesca, 2005.

- *“Factors Affecting Governmental / Trade Disparities Among Nations,”* Michael Jones, 2005.

### **LIMITATIONS OF THE STUDY**

1. Only focusing on two markets: home textiles and bottom weight:
  - While these two product categories represent a sizable business for U.S. companies, results cannot be generalized to other product categories.
2. Sample selection of respondents from two markets; unable to sample the entire population.
3. Willingness of the companies to disclose actual numbers for the research.

### **NOMINAL DEFINITIONS**

**Bed-bath products:** These products fall within the home textiles industry and the following products are listed by industry codes:

<b>Bed-Bath</b>	
<b>SIC code</b>	<b>Description</b>
2211	Cotton, Woven Fabric
2299	Textile goods, NEC
2392	Housefurnishings: Textile
5023	Home Furnishings
<b>NAICS code</b>	<b>Description</b>
313210	Broadwoven Fabric Mills
31331	Textile and Fabric Finishing Mills
313312	Textile and Fabric Finishing (except broadwoven) Mills
314129	Other Household Textile Product Mills
<b>Product code</b>	<b>Description</b>
49950	Bedding, Bedspreads, Blankets, & Sheets
576995	Towels

**Bottom Weight Apparel:** This phrase refers to any cotton or blended cotton apparel falling into the following industry codes:

<b>Bottom weights</b>	
<b>SIC code</b>	<b>Description</b>
2211	Cotton, Woven Fabric
2221	Man-made fiber
2329	Men's & Boys' Clothing, NEC
2325	Men's & Boys' Separate Trousers & Casual Slacks
2326	Men's & Boys' Work Clothing
2339	Women's and Misses' Outerwear, NEC
2369	Girls' & Infants' Outerwear, NEC
5136	Men's & Boys' Clothing
5137	Women's and Children's Clothing
<b>NAICS code</b>	<b>Description</b>
313210	Broadwoven Fabric Mills
313311	Broadwoven Fabric Finishing
315211	Men's & Boys' Cut & Sew Apparel Contractors
315212	Women's & Girls' Cut & Sew Apparel Contractors
315224	Men's & Boy's Cut & Sew Trouser, Slack, & Jean Mfg
315225	Men's & Boy's Cut & Sew Work Clothing Mfg
315228	Men's & Boy's Cut & Sew Other Outerwear Mfg
315239	Women's & Girls' Cut & Sew Other Outerwear Mfg
315291	Infants' Cuts & Sew Apparel Mfg
<b>Product code</b>	<b>Description</b>
224590	Fabrics: Broadwoven, Cotton
224580	Fabrics: Broadwoven, Synthetic

**Competitive Strategy:** This strategy involves positioning a business in order to maximize the value of the capabilities that distinguish it from its competitors (Porter, 1998).

**Developed Countries:** The more industrially advanced and prosperous countries in which a higher level of living is common. These countries account for less than 20 percent of the world's population (Dickerson, 1999).

**Developing Countries:** The countries with limited economic progress and limited industrial development, which are typically poorer. These countries account for a

majority of the world's population, but only a small amount of wealth (Dickerson, 1999).

**Exports:** Goods or services sold to other countries (Dickerson, 1999).

**Free Trade:** International exchange of goods and services with no restrictions, such as

government measures aimed at protecting domestic industries (Dickerson, 1999).

**Imports:** Goods or services purchased from other countries (Dickerson, 1999).

**Intellectual property:** Useful artistic and industrial information and knowledge (International Law Dictionary, 2003)

**Quotas:** Limits on the volume of goods imported into a country (Dickerson, 1999).

**Tariffs:** A tax imposed on imported goods (Dickerson, 1999).

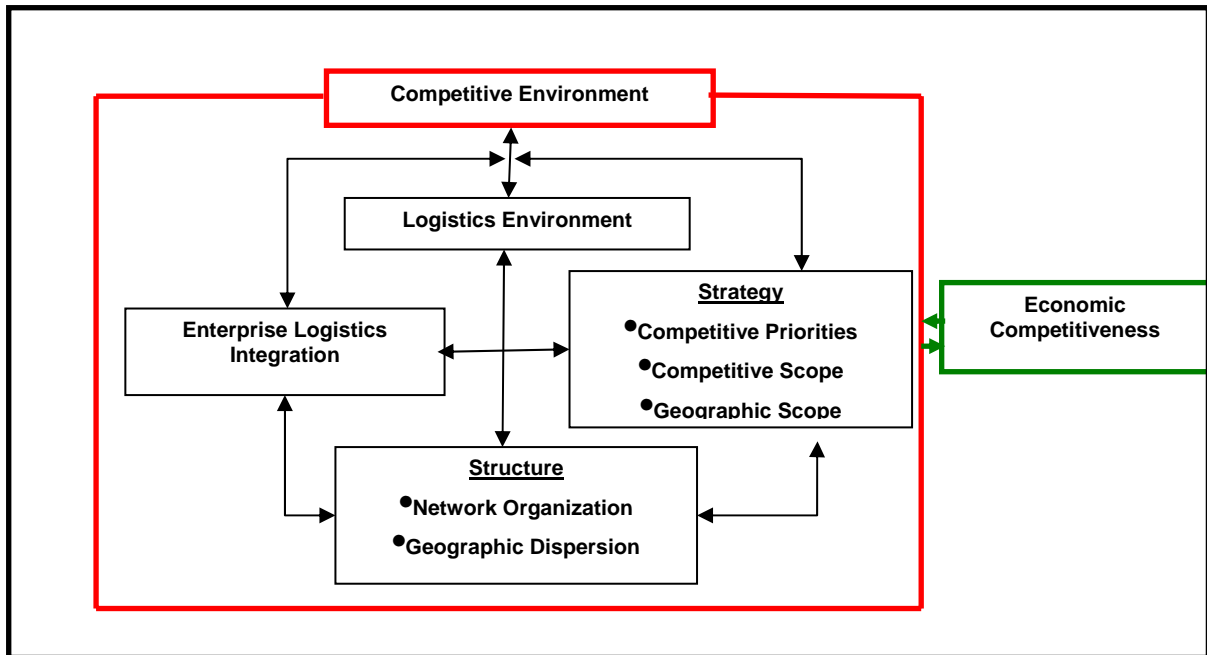
## **CHAPTER II**

### **LITERATURE REVIEW**

The literature will provide information about the study's conceptual model. A description of the textile and apparel supply chain is presented, as well as an overview of the bottom weight and bed/bath markets in the global textile and apparel industry. The literature will analyze several key nations involved in international trade. Last, the literature will describe key factors affecting trade disparities.

### **CONCEPTUAL MODEL**

The logistics model created by Stock, Greis, & Kasarda serves as the conceptual framework for this study. (Figure 1) The model, "*Logistics, Strategy, and Structure: A Conceptual Framework*," (Stock, Greis, & Kasarda, 1999) aims to develop a conceptual model for production that understands the changing environment for manufacturing firms. The framework focuses on the relatively new role of logistics to join manufacturing strategies and organizational structures and proposes that the three factors collectively impact performance.



**Figure 1: Conceptual Model for Research**

Source: "Logistics, strategy and structure; A conceptual framework" - Stock, Greis, & Kasarda, 1999

The model consists of three main elements. First, the competitive environment explains the demands made by the market. The market is where the trade disparities exist. In terms of the literature, the competitive environment has five major factors:

1. price
2. characteristics and features
3. location of customers
4. time requirements
5. variability of demand

The competitive environment also takes into account the importance of those five factors. Different markets may place more value in one category over another. A separate important measure of these five factors is their stability over time. Not

included with the five major factors are economic and technological trends, as well as manager capability (Stock, Greis, & Kasarda, 1999).

The second aspect of the model explains strategy, specifically the business strategy relating to manufacturing capabilities and decisions. The authors describe competitive priorities and break them down into four factors. “Competitive priorities can also be thought of as the areas in which a firm chooses to excel in order to meet customer demands”(Stock, Greis, & Kasarda, 1999, p 40). A company’s competitive scope is the range of competitive priorities in which a firm chooses to excel.

A company must set their priorities in the following areas:

1. cost – lowest cost producer
2. quality – performance and conformance
3. flexibility – design and volume
4. delivery – either speed or reliability

Various other priorities have been named including: speed, time, and innovation (Corbett and Van Wessenhove, 1993). Those other lists are more closely related to the idea of generic strategies from the business strategy literature (Porter, 1980). “Cost, as a competitive priority, would correspond to cost leadership, while the others (quality, flexibility, speed, etc.) would correspond to differentiation” (Stock, Greis, & Kasarda, 1999, pg. 40). The next area of strategy relates to the geographic scope of the priorities. Since globalization has become such a predominant force in international trade, geographic aspects of a business strategy play a much larger role in terms of competitiveness. Decision makers must know how widespread their customers are and create a plan that takes those factors into consideration.

Structure is the third major component of the model. The authors' approach mainly focuses on how the structure relates to manufacturing. The researchers focus on this structure in terms of the entire supply chain, while sometimes narrowing the focus to a single firm within the chain. Structure is described a couple of ways. First, structure refers to the level at which one firm is part of a larger network. Second, the 'geographic dispersion' of the firm's supply chain characterizes its structure. The supply chain for the model includes the firm's suppliers, distributors, and customers. (Stock, Greis, & Kasarda, 1999)

### **FACTORS AFFECTING TRADE DISPARITIES**

There are several key factors that affect trade disparities between countries. Factors such as: currency exchange rates, environmental and social compliance, intellectual property protection, federal subsidies, and employee benefits plans are different from one country to the next. A major cause of various disparities among trading countries are the different levels of development. Developing countries are, "The countries with limited economic progress and limited industrial development, which are typically poorer." These countries account for a majority of the world's population, but only a small amount of wealth (Dickerson, 1999). So, the various levels of development among the world's trading countries affect the trade environment. Free trade has exploited these key factors and companies must understand them in order to remain competitive.



## Evaluation of Currency Practices

Governments establish currency exchange methods so that the value of its domestic currency impacts international trade. A Swiss bank, UBS, currency analyst Bhanu Baweja stated that market economies must maintain that a move toward flexible exchange rates does remain on the authorities' 'to do' list. Currently, the focus seems to be managing macroeconomic conditions and creating general economic stability" (Baweja, 2004). The Asia-Pacific Economic Cooperation (APEC) finance ministers met in September of 2004 and released a statement saying they, "welcome steps being taken at the regional and national levels to develop capital markets and strengthen banking systems, which would over time facilitate floating currencies."

The UBS determined that there are two signs that a currency is devalued. "The first is rapidly rising official reserves. China, Japan, Taiwan, and India have seen the biggest increases in reserves over the past 18 months. A second test is the size of a country's basic balance (the sum of its current-account balance and net inflows of long-term capital, such as foreign direct investment). In 2002 China's current-account surplus was 2.2% of GDP; adding in foreign direct investment gave a basic balance of 6% of GDP. UBS believes that all the Asian currencies, except Indonesia's, are undervalued against the dollar on the basis of these two measures." (*The Economist*, 2003)

Manufacturing executives in the U.S. alleged that, "China is violating WTO and International Monetary Fund (IMF) principles of fair exchange among national currencies..." (McClenahen & Panchak, 2003, pg.48). China has been successful at

pegging the exchange rate for its national currency since 1997. The renminbi, or RMB, has held at 8.3 to 1.0 USD undervaluing itself by an estimated 30% (Sullivan, 2004). Although the RMB remains fixed at the 8.3 exchange rate, it does float against other currencies. This means that China creates a distinct advantage when trading with the United States. The Chinese, along with other Asian countries, allow little fluctuation of the rate so that they can maximize the stability of their economies. Philip Day (2003, pg. A.11) stated that, "A weaker dollar forces Asian exporters to the U.S. to either increase prices or swallow dwindling revenue when they convert sales into their own currencies." Many Asian countries are worried about the power of the Chinese textile and apparel industry, especially with the advent of the quota removal in 2005. "Asian textile makers that compete with China are particularly vulnerable. Some worry that competitors in China will cut their prices in overseas markets if the yuan continues to weaken. Unlike the rivals in places like Pakistan, Chinese companies are already able to compete on quality" (Day, 2003, pg. A.11).

Another issue involves politics. Although talks have ensued, it does not appear that China will adjust the currency rates in the near future. According to Day, "With China's history of sharp currency convulsions, its central bankers fear a sudden swing in the yuan's value – either up or down – could create new financial and social strains" (Day, 2003, pg. A.11). "China is considering various policies to stem the rise in reserves and fend off pressure for a revaluation. One option would be to allow firms to retain more foreign-exchange earnings; at present most have to be sold to the People's Bank of China. Another option is to relax restrictions on residents and firms wanting to buy foreign currency" (*The Economist*, 2003, pg.67).

China argues that a bigger issue for their government to deal with is the tremendous rate at which the economy is growing. It will be extremely difficult for the Chinese government to stop the domestic economy from growing too quickly and not realize any effect as it slows down. "Too much of a slowdown would damage the economy's ability to absorb the millions of workers flooding in from rural areas and being laid off by troubled state-owned enterprises, raising unemployment and eventually threatening social stability and the hold of the Communist Party" (Snow, 2003, pg. 61). On the other hand, a continued growth could lead to more bad loans that would damage the financial system even further (Snow, 2003). Nicholas Lardy of the Institute for International Economics in Washington, DC said that, In China's financial system, 31.4% of loans, equivalent to 44.6% of GDP, were non-performing at the end of 2002.

The U.S. still needs the political support of some of these countries as well to maintain peace with countries like North Korea. If the U.S. put too much pressure on these Asian governments, especially China, it could damage the political relationship that we have with them. Since the Bush Administration has put so much effort towards maintaining peace in Southeast Asia, it has chosen not to put intense pressure on the Chinese. The UBS predicts that China will not make any moves towards revaluing its currency until 2005.

The Chinese government uses its central bank, the People's Bank of China (PBOC), as the sole buyer of foreign currency. Since the government has the ultimate buying power, "it mops up all such inflows by exchanging them for yuan. Analysts estimate that these purchases account for \$20 billion-30 billion of the

country's foreign-exchange reserves, which reached a record \$356 billion in July.” Since the money supply in the PBOC has grown so much in the last five years, it has issued a warning of “an excessive increase” in lending. “A booming money supply can indicate that higher inflation is on the way.” (Snow, 2003, pg. 61).

There are short and long term effects of manipulating currencies the way that many Asian countries have been doing. As governments tie their currencies to the dollar, they are “...creating global economic strains.” On a global scale, the world's seven biggest holders of foreign-exchange reserves are all in Asia. “The Asian economies are supporting America's profligate habits. By buying American government securities they help finance America's large external deficit, hold down interest rates, and so sustain the boom in consumer spending and mortgage borrowing. This may benefit America in the short term, but it allows even bigger imbalances, in the shape of consumer debt and foreign liabilities, to continue to build. The eventual consequences for America, and the world economy, could be more painful.” (*The Economist*, 2003, pg. 67)

### **Evaluation of Environmental and Social Compliance**

The environment became an increasingly costly factor for U.S. manufacturers as government added stricter regulatory actions. United States manufacturers pay an estimated \$0.88 per hour worked in order to maintain regulatory compliance. That amounts to 19% of the overhead costs imposed by government (Leonard, 2003). Certain countries benefit from different national environmental regulations. For instance, a company in one country may benefit from natural occurring competitive advantages regarding the environment like: natural resources, fertile

soil, or more sunshine than a less fortunate company in another country. Some companies, however, benefit from unseemly and unmerited trade practices that may include working under weakened environmental standards. These issues may more easily be thought of in terms of free trade versus fair trade issues as they relate to the environment. A company running a facility in a less strict environmental region will not have to spend as much money to maintain compliance with the regulatory standards. Table 1 depicts the cost of maintaining environmental compliance in the U.S. and compares those costs to other regulatory activities that are imposed on manufacturers.

**Table 1: Cost of Environmental Regulation in the U.S.**

**Manufacturing Compliance Costs  
Associated With U.S. Regulations  
Compliance Activities,  
1992 and 1997**

(expressed in constant 2000 dollars)

	<b>Total cost, 1997 (\$billions)</b>	<b>Per-employee cost, 1997</b>
Environmental	69	3,691
Economic	48	2,553
Workplace	16	838
Tax compliance	15	822
<b>Total</b>	<b>147</b>	<b>7,904</b>

Source: W. Mark Crain and Thomas D. Hopkins, "The Impact of Regulatory Costs on Small Firms," Office of Advocacy, Small Business Administration, October 2001, Table 9A.

There are several conflicting arguments in regard to trade and the environment. Michael Porter believed that a government that forced stricter environmental policies actually gained a competitive advantage. He said that it would force the domestic industry to focus on innovation faster than its foreign counterparts, therefore improving long term success of the industry. Some countries

that support Porter's theory would include the United States, Germany, and Japan. All three governments have imposed very strict environmental regulations forcing companies to work with more efficient machines and processes. This, of course, comes with the tradeoff that companies will incur higher costs to maintain this level of innovation. These costs put more pressure on the domestic companies as costs become an important component of competitiveness.

Trade agreements in the past seven years created some negative effects on the environment, according to Alistair Ulph. An increase in consumption, production, and trade may cause an increase in pollution and a reduction in natural resources. Ulph also believes that it could, "...lead governments to impose too lax a regime of environmental regulation (so-called 'eco-dumping'), for fear that tougher environmental regulation might damage the competitiveness of their domestic economies" (Ulph, 2001 p. 271). Without trade policy mandates for environmental protection, governments could make their policies vague in order to protect those domestic markets. As the developing countries have begun to benefit from free trade, these issues have effected the environment and the lives of the people living in those countries. A 1998 World Health Organization Report revealed that seven of the world's ten most polluted cities were in China. Accordingly, respiratory and heart diseases related to air pollution are the leading cause of death in China. Much of this pollution is caused by heavy emissions of particulate matter and sulfur dioxide from burning unwashed coal. Most of the rivers are polluted, while half of the Chinese population had no access to clean water. Most of the industry lies near the

towns that have a better infrastructure, and 90% of the urban water is severely polluted.

A third perspective regarding the escalating environmental issues is that some experts believe that there should be a single set of environmental regulations among nations. One plan even takes into account the fact that some countries may not be able to meet the regulations. Therefore, a country that has stricter regulations may charge a higher tariff to import from those countries. This would help to speed the process of compliance to benefit from the trade benefits, along with the environmental advantages.

Social compliance refers to the regulations that companies, primarily retailers, drive down to the manufacturing plants regarding safe and healthy working conditions for developing countries. Social compliance audits are performed to ensure factories are maintaining their standards, and not depriving workers of the safe conditions that our society deems acceptable. The retailers that practice the most stringent compliance audits happen to be a few companies that were negatively impacted by some of the audited areas. If a retailer ends up with a lawsuit or bad publicity involving factories that it uses, it hurts the brand name. One of the more stringent of the compliance audits is practiced by Gap, Inc. The retailer monitors eight major areas before accepting the factory as an approved vendor, calling it Gap Inc.'s Code of Vendor Conduct. It consists of the following areas:

- Local labor laws
- Environmental
- Discrimination

- Forced labor
- Child labor
- Wage and hour requirements
- Working conditions
- Freedom of association

Source: [www.gapinc.com/social\\_resp/social\\_resp.htm](http://www.gapinc.com/social_resp/social_resp.htm) (2005)

All major retailers have vendor approval criteria that stem around similar issues. There are generally steps taken to approve a factory, and the process sometimes takes up to one year.

The Worldwide Responsible Apparel Production (WRAP) group was initiated by the textile industry to ensure proper measures are taken to reduce or prevent sweatshop labor situations. As of March 2005, WRAP has over 1,339 participating factories in 81 countries. Of those, 578 factories are certified with many others waiting to receive certification. WRAP is an independent certification program for factories, and is founded on 12 core principles regarding workers' rights and workplace conditions.

### **Evaluation of Ethical and Unethical Trade Practices**

International trade is difficult to monitor. U.S. Customs has been forced to put more resources towards Homeland Security, which takes away from its ability to monitor some unethical trade practices like transshipment. The textiles and apparel industry has been the target of transshipment for many years. "Transshipment is the deliberate mislabeling of the country-of-origin information on textile and apparel items to avoid import quotas and receive preferential trade benefits" (Mayberry &



Franken, 2004). Unethical companies may practice transshipment to gain a competitive advantage in the global market. The advantage is that the company avoids U.S. quotas on goods. If a company that should pay quota prices ships goods through a country with a beneficial trade agreement, then the company or origin benefits from shipping around the quota barrier.

“In 1997, Customs began publishing so-called administrative lists of foreign competitors convicted or fined by overseas authorities for transshipment violations. The lists are intended to give importers and retailers an opportunity to avoid doing business with such companies or to prepare the extra documents that Customs demands once the shipment arrives in the United States. The list of Hong Kong companies is the largest and now totals nearly 400” (Green, 2000). It is important for companies to know who they are sourcing from. Speed to market is important to retailers in the textile and apparel market, therefore, hang-ups in customs can actually be more costly than purchasing fabric for a higher price. John Pellegrini, a New York lawyer who is customs counsel for the U.S. Association of Importers of Textiles and Apparel, spoke of several importers that had 10 shipments detained in Los Angeles in March, 2000. He said that detentions were costly to the companies involved. Time is money and with lower inventory strategies, products that need to be brought to the retailer immediately incur a detention penalty that is costly (Pellegrini, 2000).

As transshipment is a major trading problem, most of the resources have been shifted elsewhere. Unfortunately, “the abilities of the U.S. Customs and Border Protection (CBP) agency to prevent textile transshipment have become hampered

by resource constraints, internal control weaknesses and shifting priorities brought on by the changing security landscape...While other agencies like the Office of the U.S. Trade Representative (USTR) and the Department of Commerce (DOC) get involved in transshipment issues, Customs has primary responsibility for ensuring that all goods enter the U.S. legally and therefore serves as the key line of defense against illegally transshipped goods. While CBP has no firm estimates about the amount of textiles that are being shipped into the U.S. fraudulently, the growing number of imports of textiles and apparel clearly make transshipment an issue to catch for the U.S. textile sector.” (Mayberry & Franken, 2004) A benefit of the quota removal in 2005 will be a reduction in transshipment. Traders may not need to use transshipment because it would not create a competitive advantage anymore. Countries can, for the most part, ship goods in and out of WTO countries duty free.

Transshipment is also used as a way to change the country of origin on the label of the product. Some consumers shop based on the origin of the product and transshipment is a way for a company to manipulate the label. For instance, Turkey is considered by some industry leaders as a high quality producer of towels. (Leonard, 2004) If a Southeast Asian company transships the product through Turkey it could put that as the country of origin, thus changing the product's perceived value. There will likely be no logical reason to transship goods once quotas are removed, except in rare cases where there are preferential trade agreements. Jim Leonard, Deputy Assistant Secretary of OTEXA, claims that Customs people are searching more containers for weapons of mass destruction and are increasing the opportunity to catch illegal shipments of all goods.

Intellectual property (IP) theft is another major concern among traders in the global supply chain. IP is a product, process, or technology that has patent or legal right associated with it. IP theft occurs within the textile and apparel industry, as well as many other industries. “Chinese manufacturers also are flouting the WTO Agreement on Trade-Related aspects of Intellectual Property Rights (TRIPS), in which China pledged to protect and enforce IP rights in China. Trademark infringement can cost a company 25% of sales in a market like China, estimates Robert Cassidy, a former U.S. trade representative and now director of international trade and services at Collier Shannon Scott, a Washington, D.C. law firm” (McClenahan, 2003, pg. 48).

“Knock-off consumer products, including textile and apparel products, are readily available almost everywhere in China, and consumers are often unaware that they are purchasing IP-infringing goods. Chinese customs authorities lack the power to initiate ex officio criminal cases under the criminal IP laws. Some U.S. companies claim losses from counterfeiting equal 15 to 20 percent of total sales in China, in addition to losses in export markets...Industry notes that the destructive effect of widespread IP violations discourages additional direct foreign investment and threatens the long-term viability of some U.S. business operations in China. The inferior quality of fake and unauthorized products can also pose serious health and safety risks to Chinese consumers and damage the image of the legitimate producers and products” (Stat-USA, 2004).

## **Evaluation of Federal Government Support**

Federal support varies from country to country. Generally, governments provide assistance to industries that may not be able to remain economically competitive. "Adjustment assistance to domestic firms and industries has long been an integral part of reciprocal trade liberalization in the developed countries of the OECD, at least since the implementation of the Kennedy Round tariff cuts in the 1960's. Initially, assistance was designed to alleviate the burden of adjustment to liberalized trade by means of compensatory payments to displaced workers, and to promote enhanced mobility and retraining for alternative employment. The primary purpose of government intervention was to dampen the severity of short-run adjustment shocks in affected industries, while at the same time preserving the necessary degree of flexibility in allowing market forces to produce new equilibria" (Ahmad, 1992, pg. 48).

"Since the late 1970's, however, adjustment assistance and the "restructuring" programs directly financed or otherwise supported by governments in developed countries have tended to differ significantly from their earlier counterparts in a number of respects. First, adjustment subsidies and benefit eligibility are no longer tied to episodes of reciprocal multilateral trade liberalization. Instead, they are triggered by arbitrary notions of "import penetration", particularly where prolonged and unprecedented levels of protection have failed to provide the domestic industries with anything but temporary relief. Secondly, the commitment to disengage from non-competitive sectors in individual industries seems to have been eroded. Government subsidies have been increasingly geared to enable

uncompetitive firms to continue to produce and, frequently, to “regain international competitiveness” through restructuring devices of various sorts. [Government subsidies] have become instruments of preventing the exit of extra-marginal firms from the industry by artificially raising their private profitability. Finally, the focus of government adjustment policies, never clear to begin with, seems to have perceptibly shifted from assisting the relocation of workers threatened with unemployment to supporting the firms distressed by competing imports, even though the presumed interests of the workers are routinely invoked to provide political justification for public subsidies” (Ahmad, 1992, pg. 49).

The textile and apparel industry is not the only industry that uses government subsidies. The automotive industry, steel industry, shipbuilding, and electronics have “all been recipients of government support to cope with trade-related shocks which are increasingly due to rising levels of imports from the newly industrializing countries.” The textile and apparel industry has been protected, “with high levels of direct and indirect government subsidies and other support programs. Subsidies, far from being instruments of adjustment, merely provide additional layers of protection. The industry demand for subsidies, as indeed for trade barriers, rests on two related premises:

1. that competitive problems in textile and apparel industries arise from the lack of adequate investment
2. investment in new machinery and capital equipment is necessary to compensate for international wage differences through sufficiently large improvements in labor productivity

Various types of financial support given by federal governments include:

- direct subsidies
- interest-free and concessional loans
- loan guarantees and default insurance
- tax write-offs
- accelerated depreciation allowances
- reduced social security contributions for employees
- public ownership

“In reality, restructuring programs have degenerated into mere import-substituting devices, with trade-suppressing effects in excess of those that can be ascribed to trade barriers alone. The production structures that have evolved as a result of prolonged subsidization have an inherent anti-trade bias. The type of subsidies utilized and the form of restructuring which they yield has tended to reduce the opportunities of mutually beneficial two-way (bilateral) trade between the developed and the developing countries.” (Ahmad, 1992) As trade continues to grow among developed (advanced) and developing countries, it is important to note the distribution of imports and exports. Table 2 shows a comparison between developed and developing countries, in terms of U.S. imports and exports.

**Table 2: Trade: Developed Versus Developing Countries**  
**Geographic Distribution of U.S. Exports and Imports, 1990 and 2002**  
 (percent of total)

	<i>Exports</i>		<i>Imports</i>	
	<b>1990</b>	<b>2002</b>	<b>1990</b>	<b>2002</b>
Canada	21.1	24.6	18.1	19.1
European Union	26.3	22.0	20.0	20.6
Japan	12.3	7.9	18.2	11.1
Other Advanced Economies	3.4	3.2	2.4	2.0
<b>Total Advanced</b>	<b>63.1</b>	<b>57.6</b>	<b>58.7</b>	<b>52.7</b>
Mexico	7.2	14.9	6.0	12.3
China	1.2	3.4	3.1	11.4
Southeast Asia	9.4	11.1	15.8	13.8
Other Developing Economies	12.0	7.6	11.3	4.3
<b>Total Developing</b>	<b>29.9</b>	<b>37.0</b>	<b>36.1</b>	<b>41.7</b>
Unclassified	7	5.4	5.2	5.6

Source: World Trade Organization (1990) and U.S. Bureau of the Census (2002)

Note: Southeast Asia includes Taiwan, South Korea, Hong Kong, Singapore, Malaysia, Philippines, Thailand, and Indonesia.

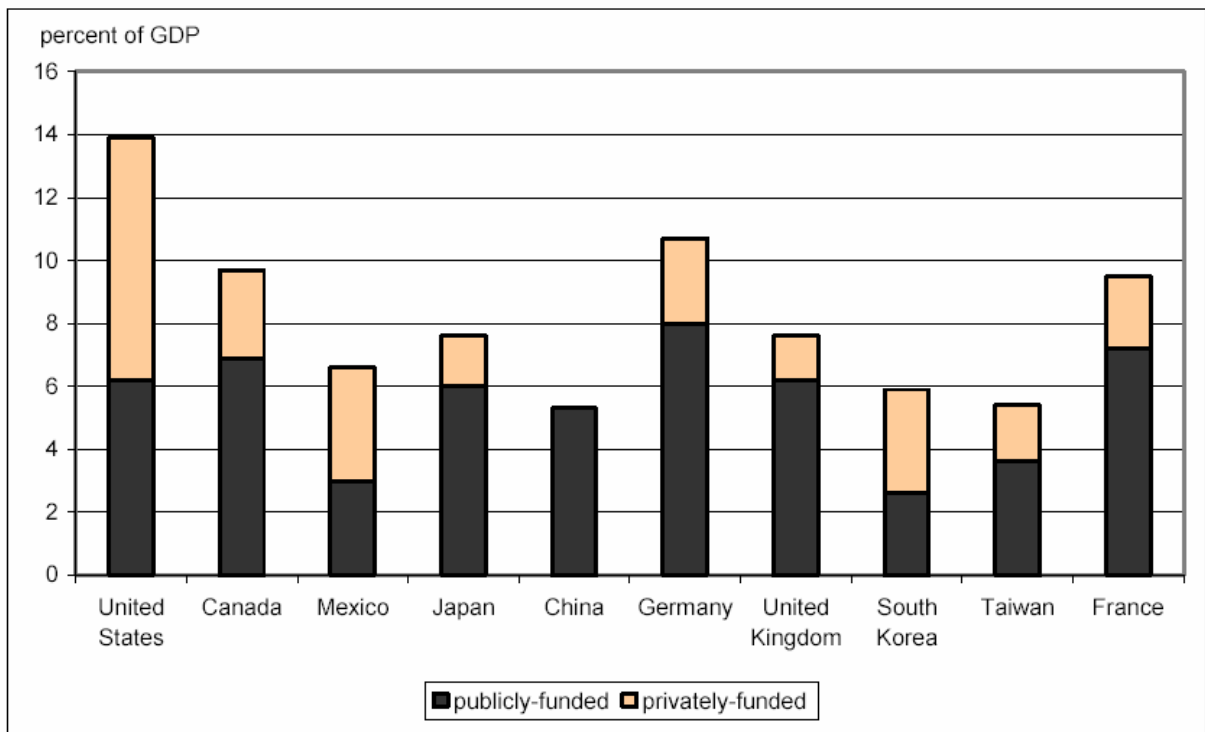
Duties and tariffs are also factors to consider when conducting business offshore. Each country has its own laws regarding import taxes, or tariffs, as well as other duties which are usually paid as a percentage of the value of shipments. The United States applies a somewhat low rate of tariff on imported goods making its markets more accessible to foreign products. Other countries with higher import tariffs create a beneficial situation for their own domestic markets because the cost to export to those countries will increase due to the higher tariff rate. This is a method used by countries to protect particular markets that their governments feel could be threatened by lower cost imports.

### **Evaluation of Employee Benefit Plans**

The United States differs from most of its trading partners, in terms of employee benefit plans. U.S. businesses, due to federal law, play a significant role in funding health and retirement benefits (Leonard, 2003). Employee benefits cost U.S.

manufacturers an estimated \$1.41 per hour worked. This amounts to 31% of the overhead costs imposed by government. “The U.S. emphasis on private sector provision of these benefits provides many advantages over publicly funded models, including better quality, more choice, and greater flexibility. However, it also means that the burden of the escalating costs in recent years falls heavily on business” (Leonard, 2003, pg. 19). Figure 2 shows the impact of publicly funded benefits plans among the top nine U.S. trade partners.

**Publicly and Privately Funded Health Care Expenditures in the United States and Its Nine Largest Trading Partners, 2001**



Source: Organization for Economic Cooperation and Development and World Bank

Notes: Data for China reflects total health expenditure; no public-private disaggregation is available. Data for Taiwan date from 1996 and are taken from Eva Liu and Joseph Lee, "Health Care Expenditure and Financing in Taiwan," Hong Kong Provisional Legislative Council Secretariat report, June 1998.

**Figure 2: Health Care Costs**



In 2001, U.S. workers had 20.6% of their total compensation taken and put into benefits, while Chinese workers only had 8.0% taken for benefits plans. As a country, the U.S. spent more on health care as a percent of GDP than any other country in the world. Health care, specifically, has grown at a rate faster than inflation over the last few years. A major component of rising health care costs is that the population is aging. The 'baby-boomers' are beginning to retire, while manufacturing employment is declining. This trend puts more pressure on the private company's economic competitiveness. Table 3 depicts the benefits as a percentage of total compensation of U.S. workers versus those of the leading trade partners.

**Table 3: Employee Benefits as a Percentage of Compensation**

**Benefits as a Percentage of Total Compensation for Manufacturing Production Workers, United States and Its Nine Largest Trading Partners, 2001**

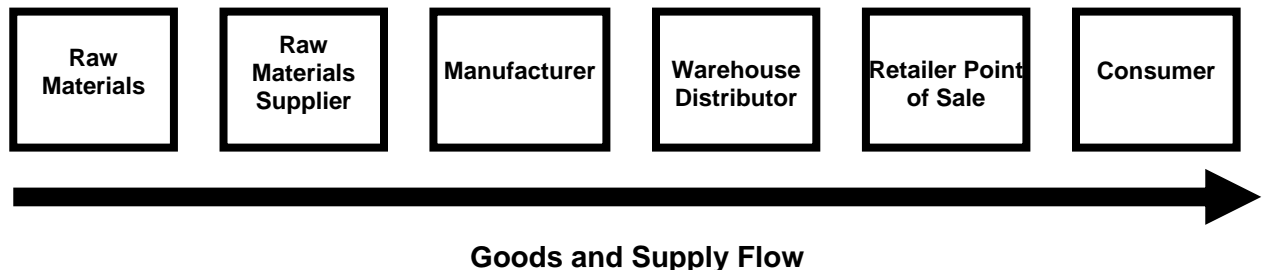
	<b>Benefits as percent of total compensation</b>	<b>Percentage point difference from U.S.</b>
United States	20.6	
Canada	15.8	-4.8
Mexico	11.2	-9.4
Japan	11.2	-9.4
China	8.0	-12.6
Germany	24.2	3.6
United Kingdom	15.5	-5.1
South Korea	29.6	9.0
Taiwan	9.1	-11.5
France	31.3	10.7
<b>Trade-weighted average of above countries</b>		<b>-5.5</b>

Sources: U.S. Bureau of Labor Statistics and "The Labor Market Dynamic in Post-Reform China: History, Evidence, and Implications," Manufacturers Alliance/MAPI, ER-561e, September 2003

Note: China data include health benefits only.

## OVERVIEW OF TEXTILE AND APPAREL SUPPLY CHAINS

As the world moves closer to globalization, it is vital to understand supply chains and their key components. In the most simplistic explanation, the textile and apparel supply chain consists of six major segments from raw material to consumer. Figure 3 shows the model by Bhutta, Huq and Maubourguet with the six major segments shown in sequence.



**Figure 3: Basic Supply Chain Model for Textiles and Apparel**

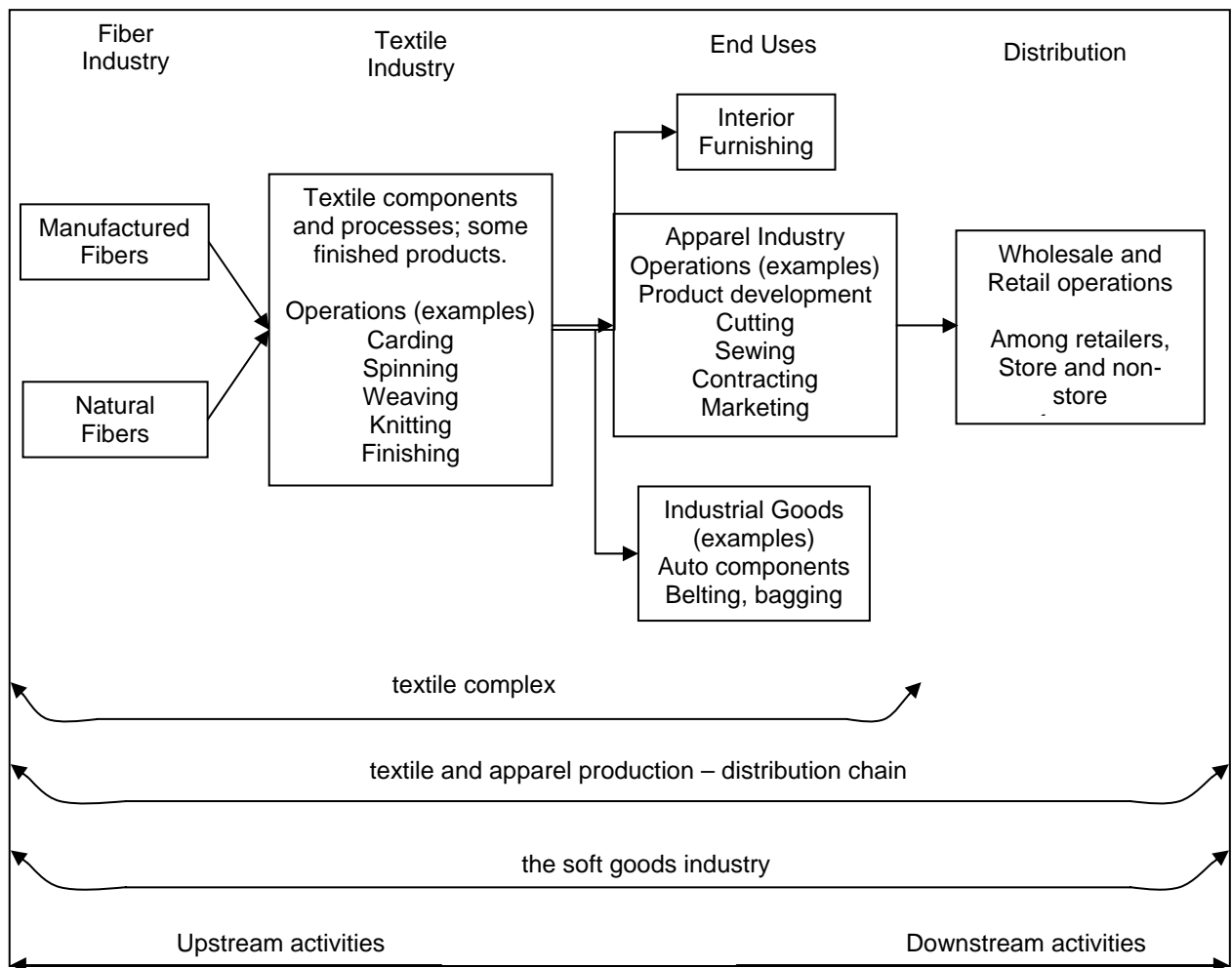
Source: Efficient Consumer Response-Increasing Efficiency through Cooperation. Bhutta, Huq, & Maubourguet – 2002.

As international trade increased, the supply chain became a bit more complicated. The six major segments may flow across country borders a few times before the product is actually purchased by the consumer. Each segment along the supply chain is affected in different ways due to globalization.

The generic model of a textile supply chain includes a fiber company, a textile company, an apparel company, and a retail company. “At the group level for a generic textile supply chain, common goals are lead-time reduction and capacity sharing among members. At the member level, a textile fabric manufacturer may set up its own goals of hatching, and lot sizing; and an apparel manufacturer may set up

higher inventory turn to liquidate finished goods inventory” (Chandra and Kumar, 2001, pg.5).

Figure 4 represents the textile and apparel production-distribution chain as described by Dickerson. The figure presents a good visual depiction of how bottom weight and bed-bath products are produced. As supply chains become more fragmented, decision makers must decide which areas of this chain to disrupt in an attempt to improve cost and speed to market while keeping consumers happy.

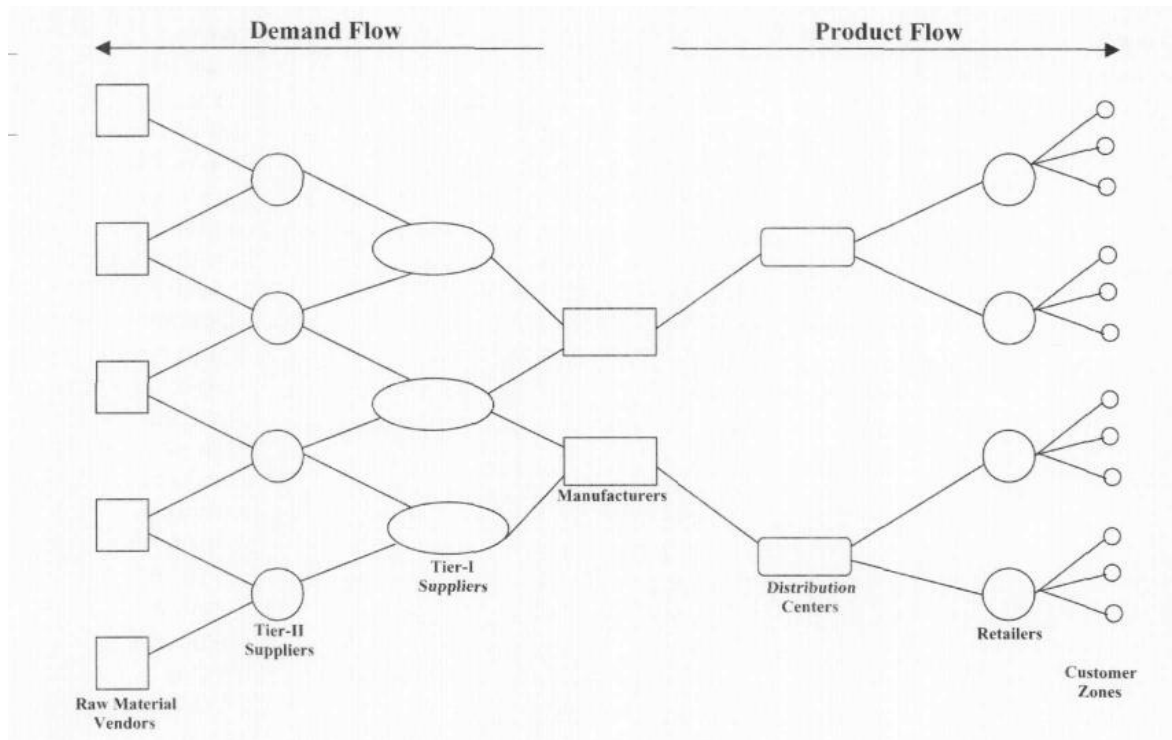


**Figure 4: Textile and Apparel Production-Distribution Chain**

Source: Textiles and Apparel in the Global Economy, Dickerson, K., 1999, pg. 19

Figure 5 provides a model of a supply chain network that explains how synchronization is achieved through coordination throughout the textile and apparel supply chain. “Various textile supply-chain members enter into negotiation with one another and eventually compromise on such issues as reserving manufacturing capacities, and holding consumer price levels through cost sharing.” (Chandra and Kumar, 2001)

Many Indian companies have vertically integrated their supply chains to make themselves more competitive. Due to the nature of fashion cycles, retailers have increasingly used vertically integrated companies so that they only have to go to one source. The Crisil Infrastructure Advisory predicts that the Indian textile and apparel industry will have an 18% average annual growth through 2010 (Rao, 2004).

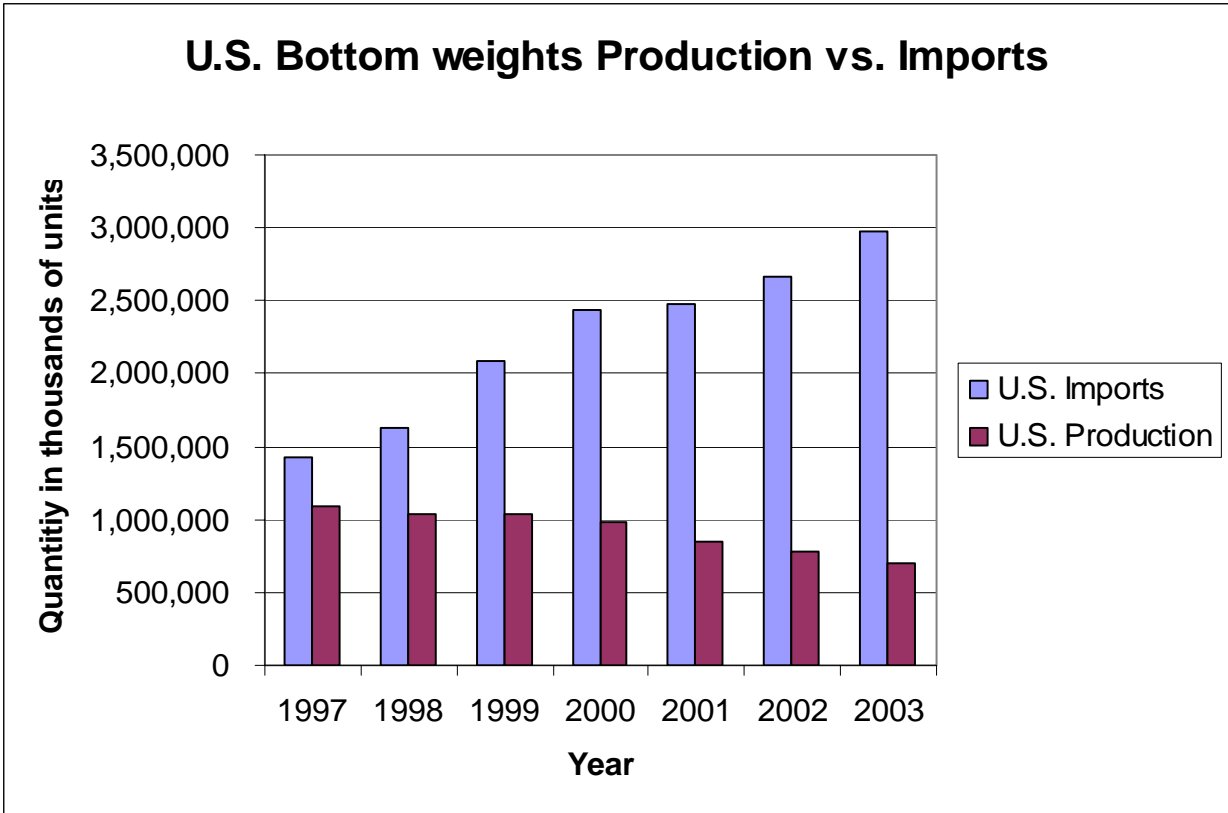


**Figure 5: A supply chain network**

Source: Enterprise architectural framework for supply-chain integration, Chandra and Kumar, 2001.

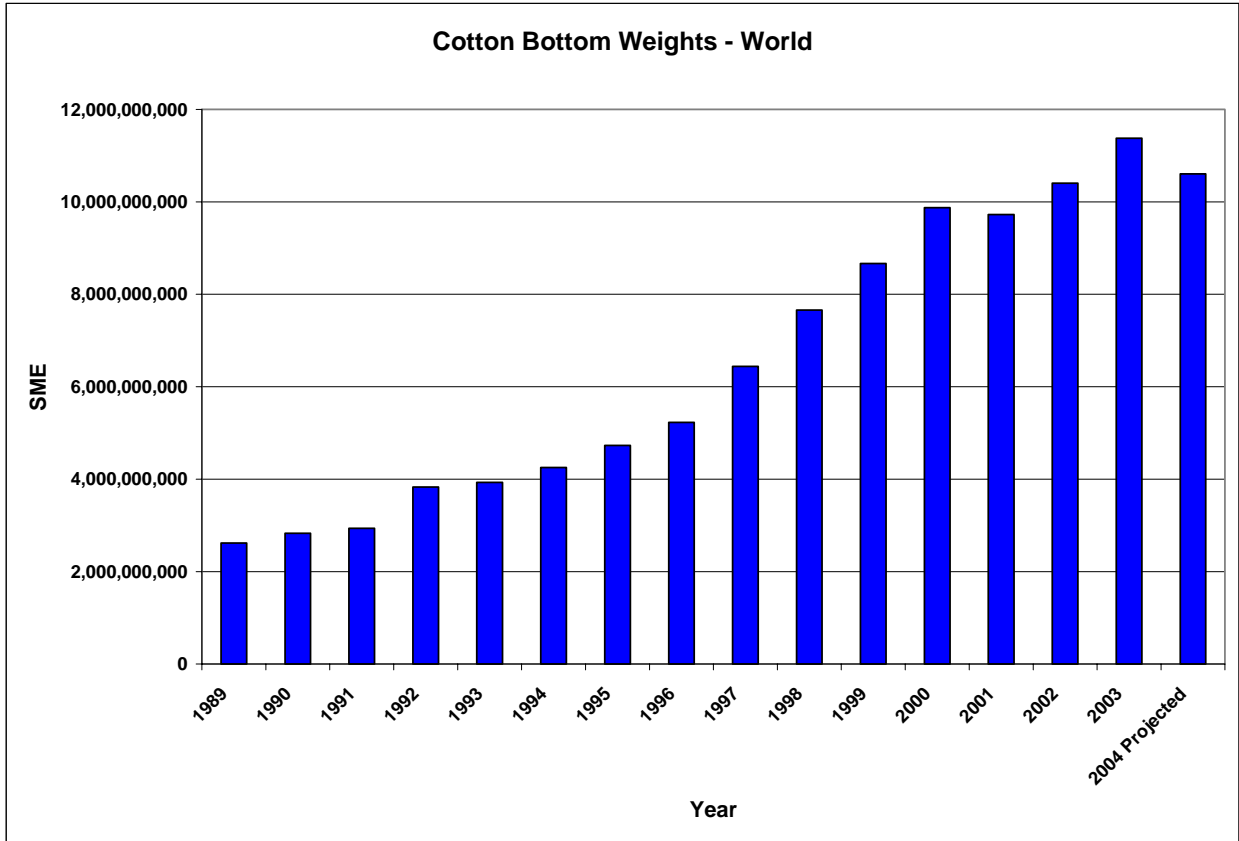
## **DESCRIPTION OF THE BOTTOM WEIGHT INDUSTRY**

The bottom weight industry realized a tremendous shift from 1997 to 2003. Figure 6 shows U.S. bottom weight production versus imports. Since 1997, the U.S. textile and apparel industry has realized a 36.4% decrease in bottom weight production. During the same period, U.S. imports of bottom weight apparel increased 108.2%.



**Figure 6: U.S. Bottom Weight Market Overview**

Source: 1997-2003. Current Industrial Reports: Bottom Weight Apparel. (Online), September 20, 2004. U.S. Census Bureau, <http://www.census.gov/cir/www/>



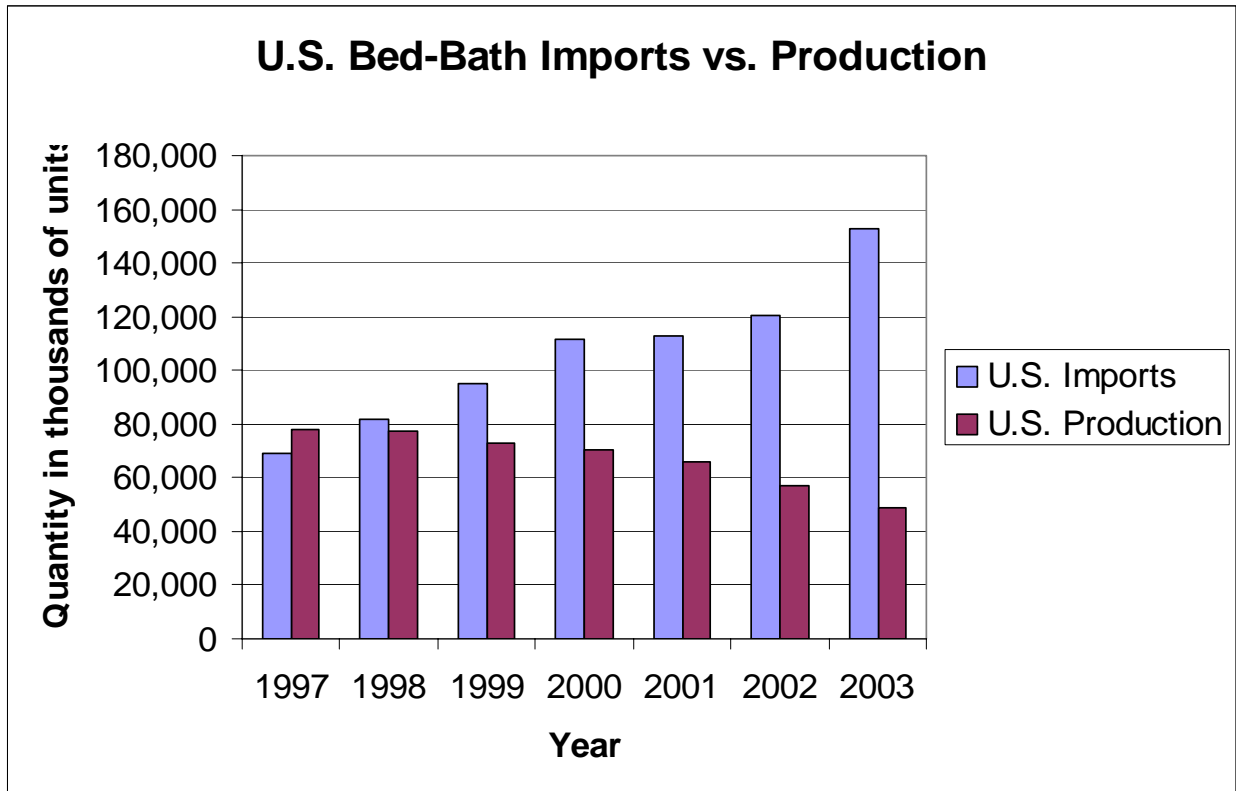
**Figure 7: Cotton Bottom Weight Production by Year**

Source: Cotton Inc., 2004

Men’s and boys cotton bottom weight apparel have increased dramatically over the last 15 years. The data shows that production increased almost five times over that time span. Cotton bottom weight production reached almost 1 billion square meter equivalents in 2003. Women’s and girl’s cotton bottom weight production grew at a similar rate as the men’s/boy’s bottom weight production. The totals reached over 1.3 billion square meter equivalents in 2003. The data indicates a slight reduction in cotton bottom weights for 2004, but the year-to-date data projects that it will still be the second highest volume year.

## DESCRIPTION OF THE HOME TEXTILES INDUSTRY

The home textiles industry experienced similar trends from 1997 to 2003. U.S. bed-bath products' production decreased 37.2%. The imports grew at a rate of 121.6% over the same time period.



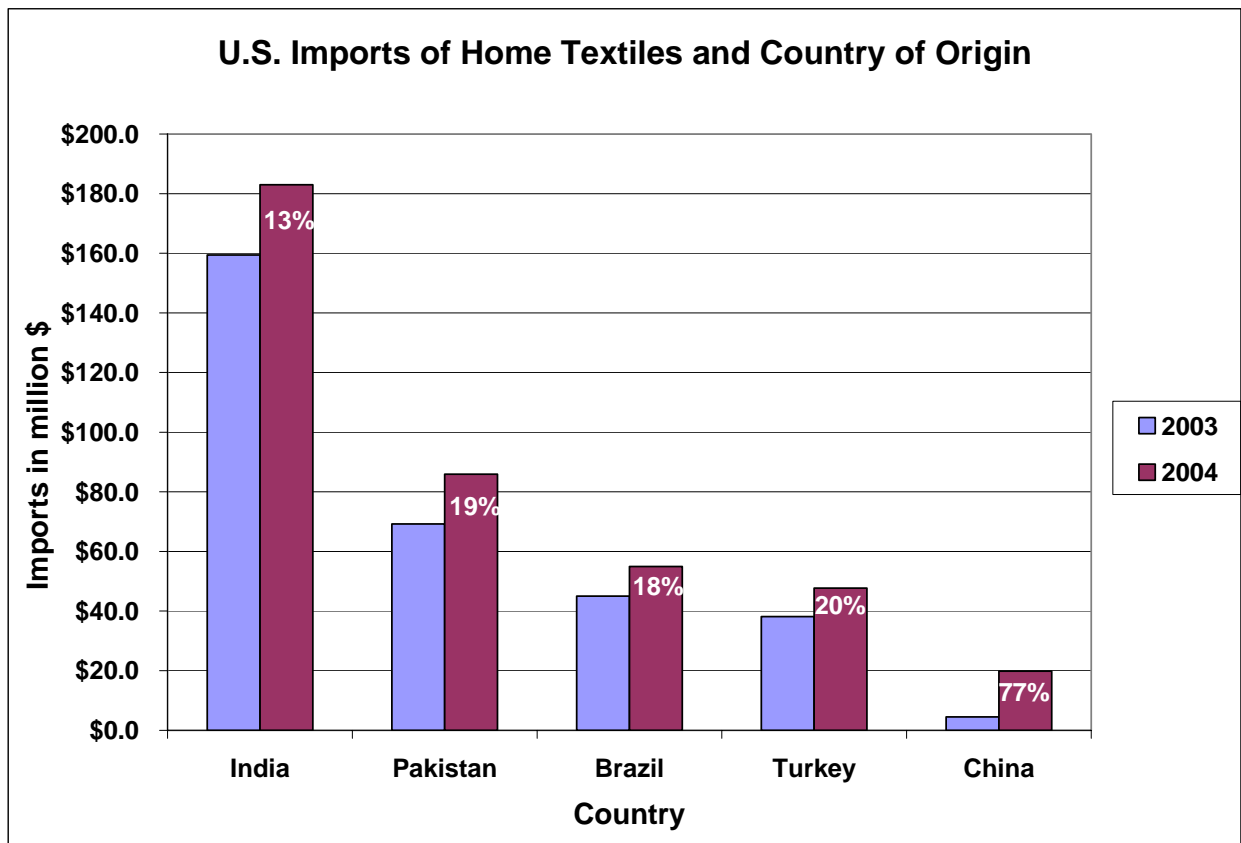
**Figure 8: U.S. Bed-Bath Market Overview**

Source: 1997-2003. Current Industrial Reports: Bottom Weight Apparel. (Online), September 20, 2004. U.S. Census Bureau, <http://www.census.gov/cir/www/>

Figure 9 shows that home textiles imported by the U.S. in 2003 and 2004 come from a variety of regions. The chart depicts the five largest exporters of home textiles into the U.S. The data shows the amount of goods imported in 2003 versus the amount of goods imported in 2004, according to sales. The numbers inside the 2004 bar represents the percent change from 2003 to 2004. In South Asia, India



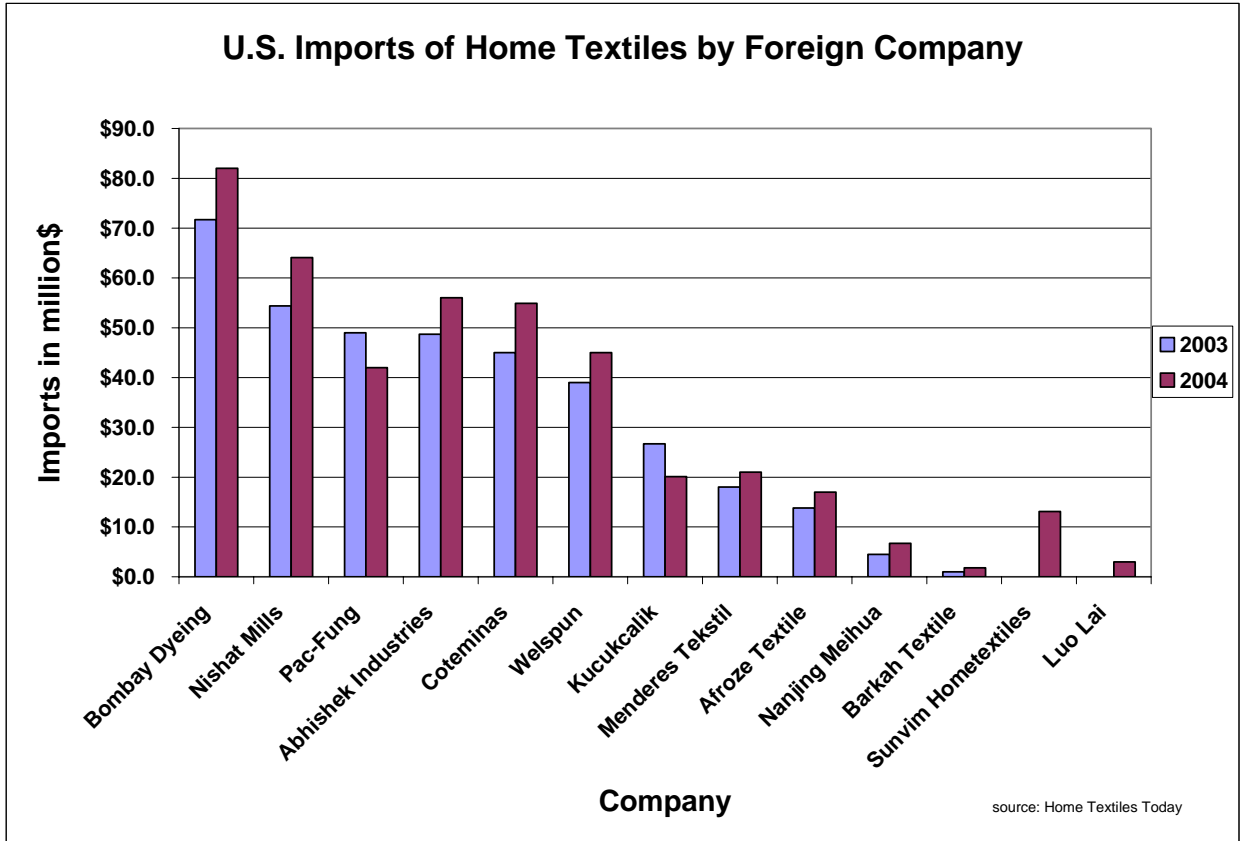
and Pakistan appeared to have the majority of this market to the U.S. With 13% and 19% export growth to the U.S. respectively, they also represented about 68% of the market share for the top five exporting nations. Appendix C lists the largest companies within those countries shown in Figure 9, along with sales data.



**Figure 9: Home Textiles' Country of Origin**

Source: Home Textiles Today, 2004

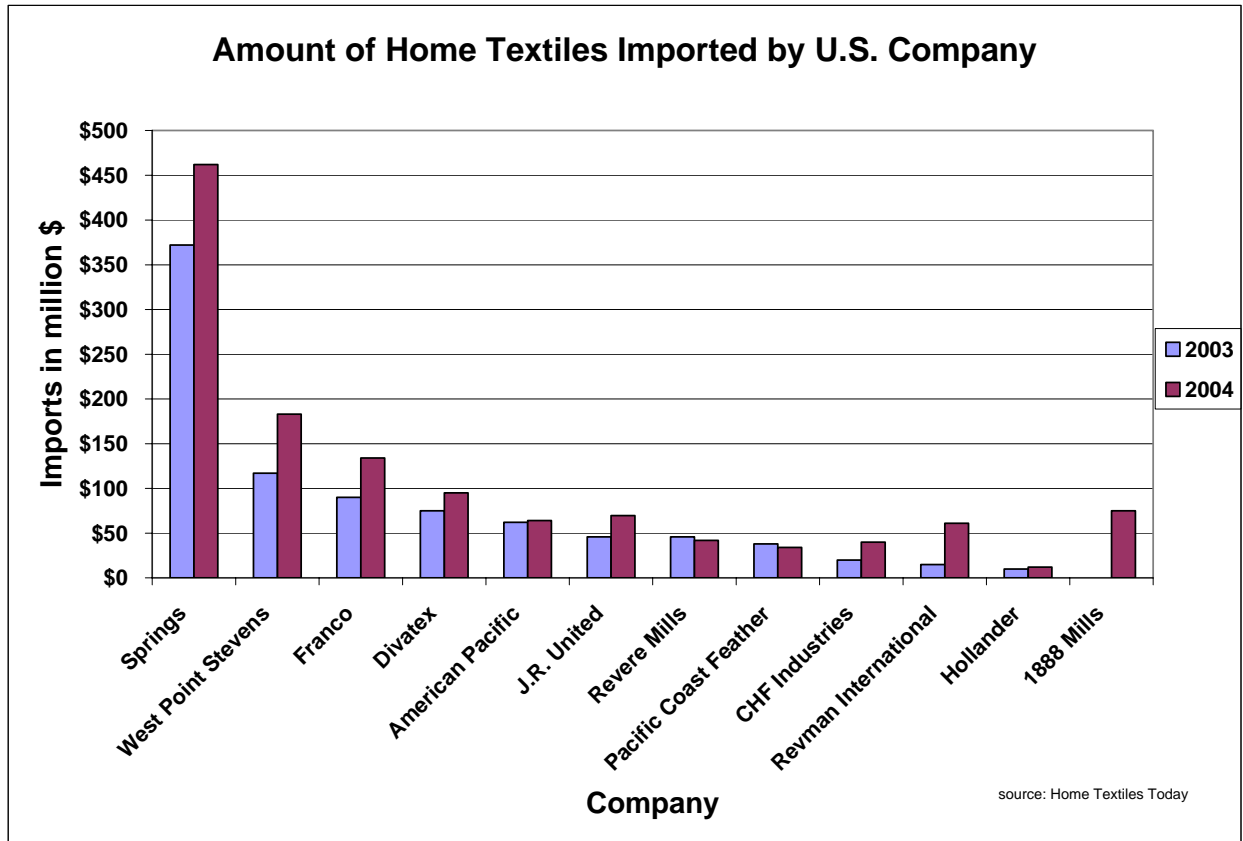
Figure 10 graphically presents home textiles, in terms of foreign exporting company. These companies were leaders in the countries that exported to the U.S. The vast majority of these companies benefited from an increase in exports due to the trends relating to free trade. Depending on certain regional and government factors, these trends will most likely continue after quotas are lifted.



**Figure 10: Home Textiles' Global Manufacturers**

Source: Home Textiles Today, 2004

Figure 11 visually depicts the amount of foreign home textiles bought by U.S. companies in 2003 and 2004. Springs Industries dominated the U.S. home textiles market. Even with the market share that Springs possessed, it increased home textile imports by 19% from 2003 to 2004 (Home Textiles Today, 2004). West Point Stevens increased its imported home textiles by 36% over the same time period.



**Figure 11: Home Textiles Imported by U.S. Company**

Source: Home Textiles Today, 2004

### IMPACT OF QUOTA ELIMINATION IN 2005

“Multi-Fiber Arrangement (MFA) quotas are quantitative restrictions that have a number of characteristics. First, they are applied on a discriminatory basis to some exporting countries but not to others. Second, they are negotiated on a bilateral basis rather than imposed globally and, therefore, differ from country to country in terms of product coverage and degree of restrictiveness. Third, they involve limits on exports, transferring rents (generated by these restraints) from the importing country to the exporting country” (Abbott, 2004, pg.32).

The economic case for free trade is that it produces mutual gains for countries. This argument is derived from the workings of the principle of comparative advantage. Comparative advantage results from different countries having different opportunity costs of producing one traded good in terms of another. These different relative costs are the reason why it pays to specialize and to trade” (Roberts, 2004).

Table 4 shows a summary of various models that were used to study the impact of quota removal on certain regions involved in the textile and apparel industry. The data was collected by the International Trade Commission in response to an inquiry from the U.S. Trade Representative. It is important to note where the textile and apparel industry is shifting and which countries will provide the most beneficial avenue for products in the post-quota market. “Tait (2002) asserts that purchasers are likely to concentrate on four or five politically and financially stable countries. Factors that are considered important include: respect of basic human ethics such as minimum wages; absence of child or forced labor; and good working conditions. Tait also stresses the importance of infrastructure that supports the buying process (e.g., good telecommunications, ease of import and export documentation and procedures, international logistics companies, quality controllers, and test centers)” (Abbott, 2004, pg. 32).

**Table 4: Predicting the Impact of Quota Elimination in 2005**

<b>Characteristics of selected analytical studies relating to the ATC</b>				
<b>Authors</b>	<b>Database</b>	<b>Model Characteristics</b>	<b>Policy Simulations</b>	<b>General Results</b>
Francois and Spinanger (2001)	GTAP 4 (Base year 1995) Quota prices for Hong Kong for 1998/99	Standard Static GTAP model and parameters	Quota removal plus Uruguay Round trade liberalization in the context of China's WTO accession. (Focus: Hong Kong)	Textile and clothing exports from Asia (especially south Asia) increase substantially. Preferential access to the United States and the EU would be reduced and there would be a shift in demand away from countries like Mexico and Turkey. Sub-Saharan Africa's exports would also drop.
Terra (2001)	GTAP 4 (Base year 1995)	Standard Static GTAP model and parameters	(i) Quota removal and (ii) Quota removal plus tariff reductions (Focus: Latin America)	Developing countries subject to the biggest quantitative restrictions would expand their exports at the expense of the importing developed countries, but also of other developing countries which are less restricted (i.e., Latin American countries). MERCOSUR and Chile would reduce their exports of clothing significantly, and their exports of textiles moderately. Effects would be stronger in (ii) than in (i).
Avisse and Fouquin (2001)	GTAP 4 (Base year 1995)	Standard Static GTAP model and parameters	Quota removal	Output share of Asia increases from 12 percent to 18 percent. China's exports would increase by 87 percent, South and Southeast Asia's would increase by 36 percent. Latin America and NAFTA would lose 39 percent and 27 percent, respectively.
Diao and Somwaru (2001)	GTAP 5 (Base year 1997); 25 year baseline	Counterfactual analysis using an intertemporal version of GTAP	MFA phase-out simulated by improving the efficiency of textile and apparel exports from constrained countries. Other trade barriers on textile and apparel imports are reduced by 30 to 40 percent in all countries. They econometrically estimate that a percent increase in apparel trade shares is associated with a 3.3 percent increase in per capita income.	The annual growth of world textile and apparel trade would be more than 5 percent higher. Market share of developing countries as a whole would increase by 4 percentage points following the ATC. China would gain almost 3 percentage points of the world Textile and apparel market, while other Asian countries would capture more than 2 percent. Non-quota developing countries are predicted to lose about 20 percent of their markets (equal to 2.3 percentage points of world total textile and apparel markets) to the restrained ones.

Source: Abbott, "Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market," 2004.

**Table 4 continued:**

<b>Characteristics of selected analytical studies relating to the ATC</b>				
<b>Authors</b>	<b>Database</b>	<b>Model Characteristics</b>	<b>Policy Simulations</b>	<b>General Results</b>
Matoo, Roy, and Subramanian (2002)	Data collected by the authors.	Partial Equilibrium. ETEs derived from Kathuria and Bharadwaj (2000). Leontief production. Export elasticities from 1 to 5.	Interaction between the ATC and the AGOA rules of origin for Mauritius and Madagascar	Under the current AGOA system, the apparel exports of Mauritius and Madagascar would be about 26 percent and 19 percent lower, respectively, following 2005. If AGOA's rules of origin requirement is eliminated, the decline in Mauritius's exports would be only 18 percent, and Madagascar's exports could increase.
Lankes (2002)	GTAP 5 (Base Year 1997)	Standard Static GTAP model and parameters	Quota removal	Total export revenue loss attributed to the MFA quotas estimated to be \$22 billion for developing countries and \$33 billion for the world as a whole.

Source: Compiled by Commission Staff.

Source: Abbott, "*Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market*," 2004.

Appendix D provides two examples of the anticipated effects of quota elimination and the competitive factors associated with specific regions and countries. Results for every country can be found in the complete ITC report issued by M. Abbott. As far as bed-bath and home furnishings markets, China and India look like two of the strongest countries that will emerge as winners post-quota. China benefits from very low labor costs, while maintaining relatively high productivity. The industry also perceives the Chinese as among the best in making most garments and made-up textile articles at any quality or price level. One of the factors preventing China from initially exporting more is the uncertainty regarding textile-specific safeguards.

India is considered a competitive supplier to the U.S. in the post-quota era and is, considered by many U.S. companies as the primary alternative to China. India, like China, has a vast number of people. The labor is inexpensive, yet skilled. The products that India can make vary among a wide range of apparel. India has also emerged as a competitive source for home textile products. Some negative factors limiting the sourcing potential of India are personal safety, security of shipments, and complicated government procedures (Abbott, 2004).

## **CHAPTER III**

### **METHODOLOGY**

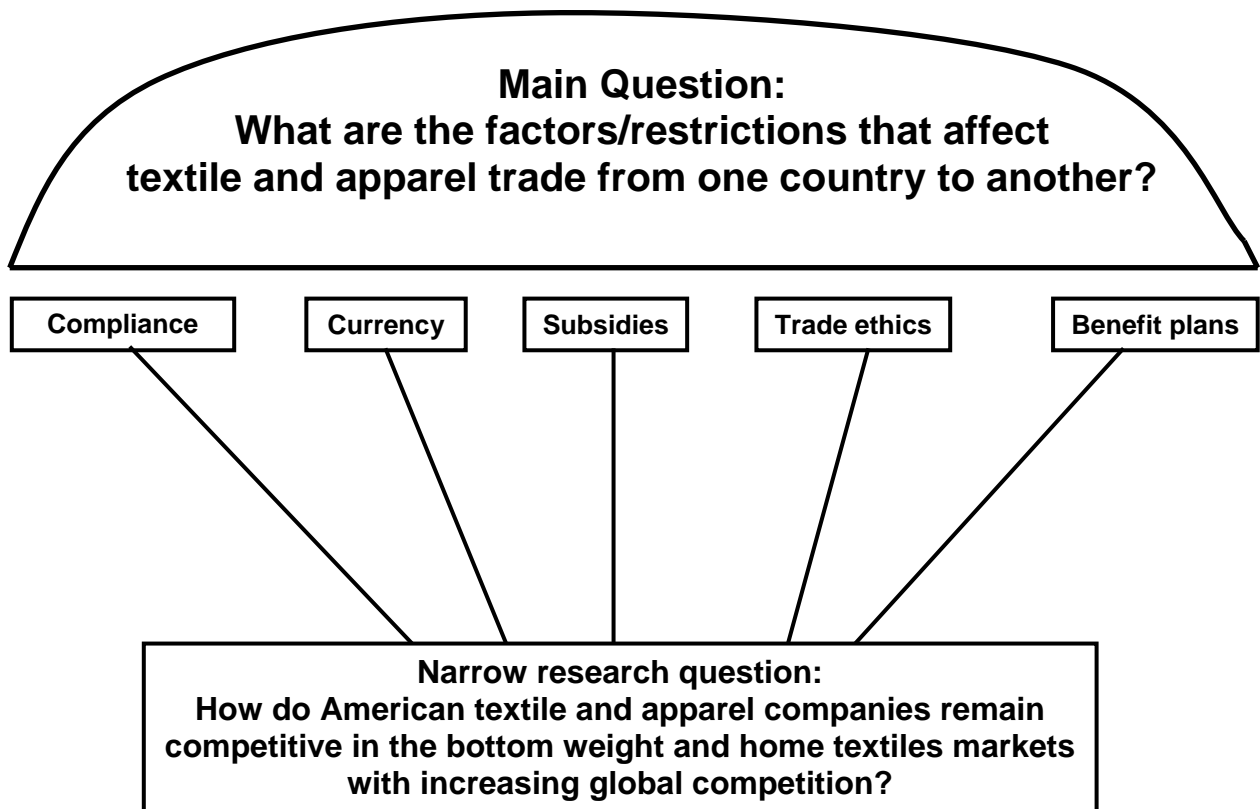
#### **Purpose of the Research**

The purposes of the study are to a) examine the impact of trade factors on U.S. textile and apparel companies, and b) quantify the results so that those companies can benefit from understanding the industry environment. The research will design a model that encompasses factors of trade disparities. Furthermore, the research will answer the following questions:

1. What are the currency issues that exist in international trade?
  - How do countries manipulate currencies to benefit their economy?
2. What are the impacts of environmental and social compliance on textile and apparel companies?
3. What is the impact of intellectual property theft in global markets?
4. How has federal government support affected the textile and apparel industry?
  - How do countries benefit from direct state subsidies?
5. What impact do employee benefits plans have on companies?
  - How much of an effect do health care and retirement plans have on companies that must fund their own programs?
6. Which countries are the best trade partners in bed/bath and bottom weights textiles?



- How can a company quantify various countries in terms of trade factors?
7. Which regions support the bottom weight and bed/bath markets?
  8. What are the global factors that affect a company's ability to be competitive in the bottom weight and bed/bath markets?



**Figure 12: Diagram of Narrowing the Main Research Question**

Source: M. Jones (2004)

## Research Objectives

The research objectives are to develop a model that can be used by the U.S. industry to improve international competitiveness, and quantify secondary data through structured interviews. Specifically the research objectives are:

RO1. To evaluate how currency issues affect international trade, and how certain countries benefit from economic practices.

Instrument question: Which environmental and social compliance regulations must you comply with in your various locations?

RO2. To determine the impact of environmental and social compliance regulations imposed on textile and apparel companies.

Instrument question: How do Asian currencies' exchange rate affect your business? Does the exchange rate make Asia a favorable place to invest?

RO3. To explain how intellectual property theft affects the textile industry.

Instrument question: Has your company been impacted by IP theft? Do you feel like it is a problem overseas?

RO4. To understand the different levels of financial support (subsidies) that federal governments provide.

Instrument question: How do federal subsidies impact your locations in the U.S. and overseas?

RO5. To evaluate the impact of employee benefits plans on companies.

Instrument question: What benefits plans are offered by your company in the U.S. versus overseas? What are the cost differences?

RO6. To develop a comprehensive understanding of which countries lead the bottom weight and bed/bath markets.

Instrument question: What country is most favorable for you to include in your supply chain? Why?

Instrument question: With your products, why does it benefit you to go overseas?

Instrument question: Do government laws limit your success in certain regions?

RO7. To provide a descriptive list for global factors of competitiveness in the textile and apparel industry, according to primary and secondary data.

### **Research Design**

The methodology for the research was a mixed methods approach. “The concept of mixing different methods probably originated in 1959, when Campbell and Fiske used multiple methods to study validity of psychological traits. They encouraged others to employ their “multimethod matrix” to examine multiple approaches to data collection in a study. This prompted others to mix methods, and soon approaches associated with field methods such as observations and interviews (qualitative data) were combined with traditional surveys (quantitative data) (S.D. Sieber, 1973).

The sequential exploratory design guided this research as shown in Figure 13. “This model is characterized by an initial phase of qualitative data collection and analysis, which is followed by a phase of quantitative data collection and analysis. Therefore, the priority is given to the qualitative aspect of the study. The findings of these two phases are then integrated during the interpretation phase. The purpose

of this strategy is to use quantitative data and results to assist in the interpretation of qualitative findings” (Creswell, 2003, pg. 215).

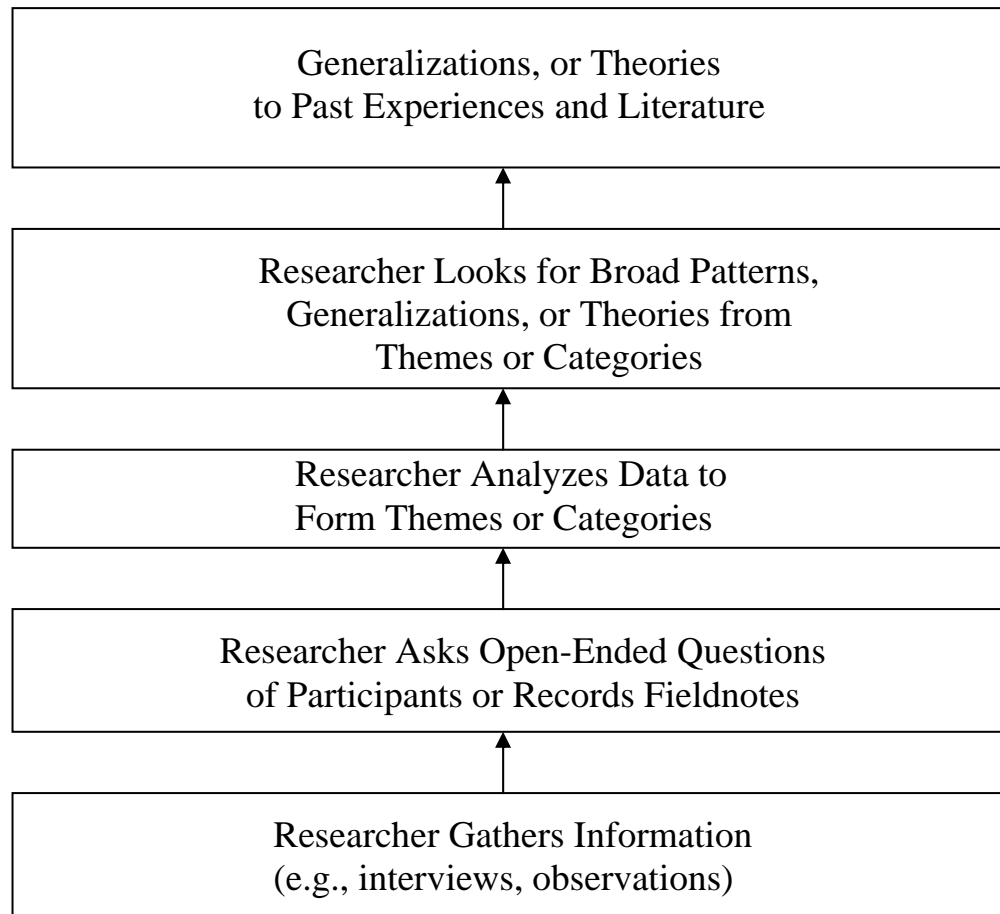


**Figure 13: Sequential Exploratory Design**

Source: Creswell, J. (2003). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches, 2nd ed.* Thousand Oaks, CA: Sage Publications.

### **PHASE I – INDUCTIVE THEORY**

The initial phase of the research collected and analyzed secondary data from various sources. They included trade journals, lectures, government data, and books. This phase of the research used theory inductively, as it produced an emerging theory or pattern. The inductive theory was used to answer the research questions described in the purpose of the study. Figure 14 explains the process of inductive theory as described by Creswell.



**Figure 14: Inductive Theory for Mixed Methods Research**

Source: Creswell, J. (2003). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*, 2nd ed. Thousand Oaks, CA: Sage Publications.

The inductive theory portion of the research answered a portion of the research questions. After the Phase I (secondary data collection) was complete, the following research questions were answered:

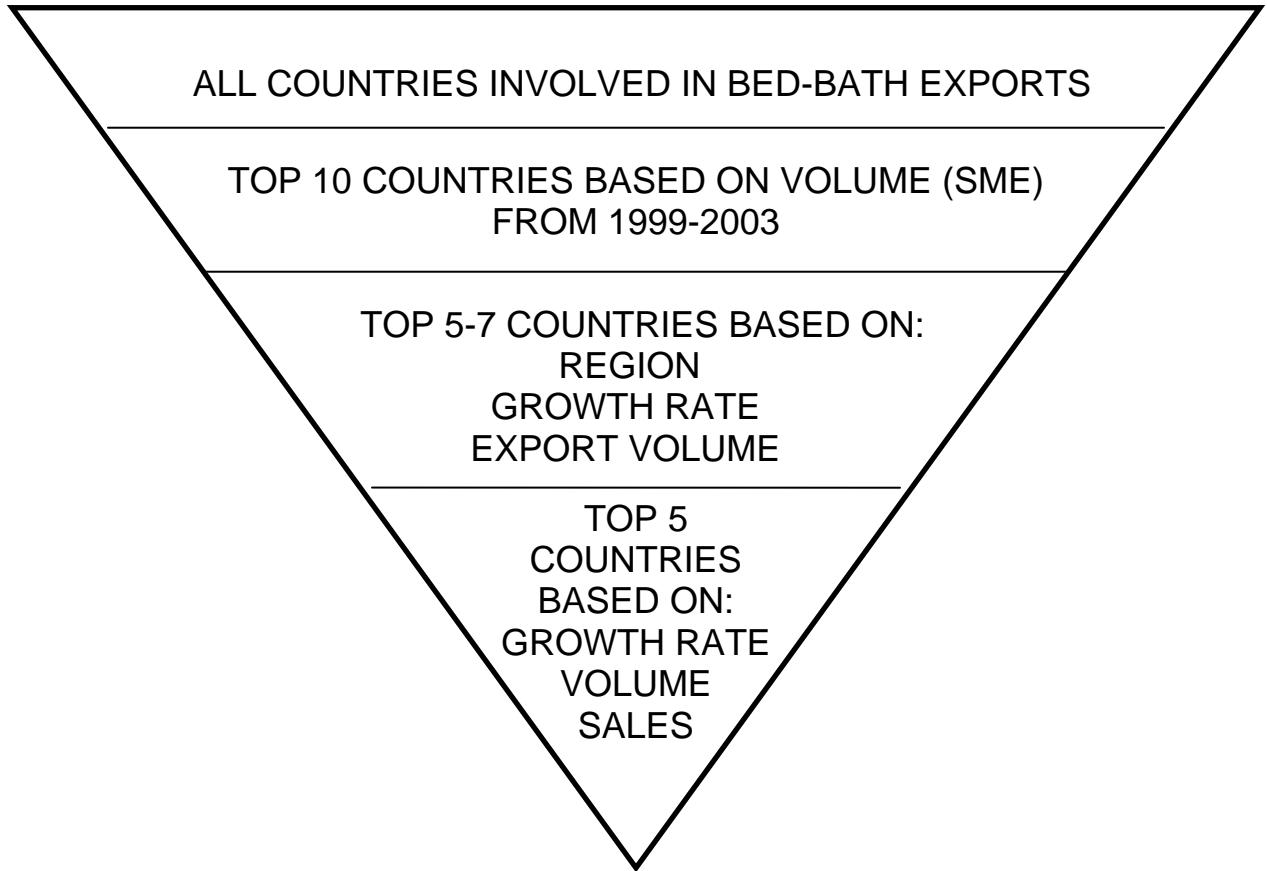
1. What are the currency issues that exist in international trade?
  - a. How do countries manipulate currencies to benefit their economy?
2. What are the impacts of environmental and social compliance on textile and apparel companies?

3. What is the impact of intellectual property theft in global markets?
4. How has federal government support affected the textile and apparel industry?
  - How do countries benefit from direct state subsidies?
5. What impact do employee benefits plans have on companies?
  - How much of an effect do health care and retirement plans have on companies that must fund their own programs?
6. Which countries are the best trade partners in bed/bath and bottom weights textiles?
  - How can a company quantify various countries in terms of trade factors?
7. Which regions support the bottom weight and bed/bath markets?
8. What are the global factors that affect a company's ability to be competitive in the bottom weight and bed/bath markets?

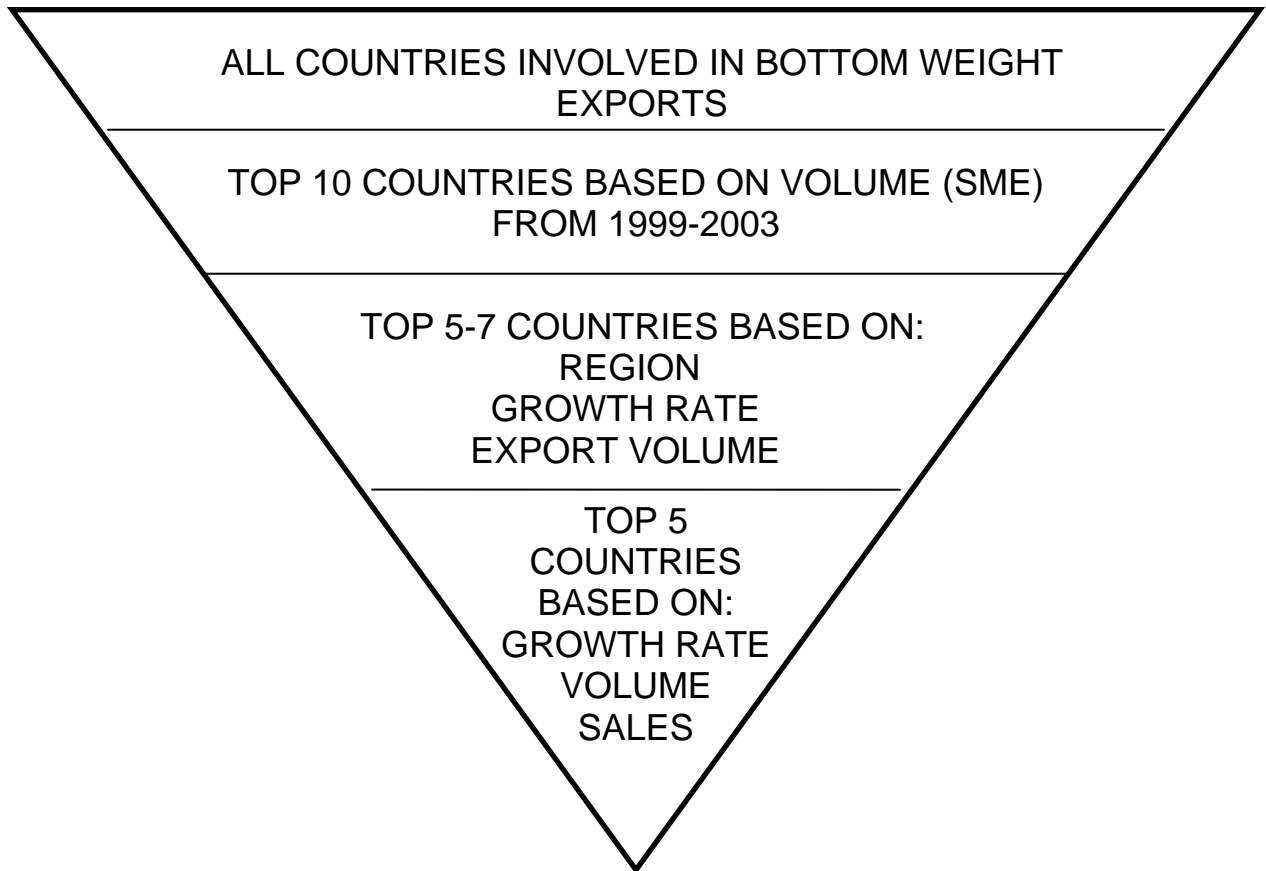
### **Sample Selection – Phase I**

The sample countries were selected by analyzing the countries involved in exporting goods in the bed-bath and bottom weights industries. Once the country data was sorted by volume of products exported for each market in square meter equivalents, the list was reduced to the ten largest players in their respective markets. The countries were narrowed from 196 to ten by calculating the square meter equivalent (SME) totals from 1999 through 2003. The list was then reduced to five final countries based on region, growth rate, companies in the location, and

export volume. Figures 15 and 16 show the sample selection method used in Phase I of the research.



**Figure 15: Sample Selection – Bed-Bath Exporting Countries**



**Figure 16: Sample Selection – Bottom Weight Exporting Countries**

### **Data Collection - Phase I**

The data for the country selection was collected from ongoing Cotton Incorporated research performed at the world headquarters in Cary, N.C. The data represents all cotton apparel and products throughout the world. 196 trading countries are included in the data and information is separated by product. The database is updated monthly by Cotton, Incorporated. Individual tables by country are located in Appendix C: Market Analysis.



**Table 5: PHASE I INSTRUMENT**

<b>Step</b>	<b>Process</b>	<b>Sources Used</b>	<b>Contribution</b>
Step 1	<ul style="list-style-type: none"> <li>Analyze trade disparities</li> </ul>	<ul style="list-style-type: none"> <li>U.S. I.T.C</li> <li>U.S. DOC</li> <li>United Nations</li> </ul>	<ul style="list-style-type: none"> <li>Identified major trade disparities</li> <li>Provided supporting data for literature</li> <li>Identified global factors of competitiveness</li> </ul>
Step 2	<ul style="list-style-type: none"> <li>Identify textile and apparel industry Trends.</li> </ul>	<ul style="list-style-type: none"> <li>1999-2003 U.S. Census Data</li> <li>Trade Literature</li> <li>International Trade Commission Data</li> <li>S&amp;P Industry Surveys</li> </ul>	<ul style="list-style-type: none"> <li>Provides industry trends</li> <li>Prove that U.S. manufactures are actually losing market share in the bottom weights and bed-bath categories domestically</li> <li>Determine what the current supply chain for textiles and apparel are, and Compare it to the traditional U.S. textile and apparel supply chain.</li> </ul>
Step 3	<ul style="list-style-type: none"> <li>Identify Market trends for bed/bath and Bottom weight products.</li> </ul>	<ul style="list-style-type: none"> <li>Internet research</li> <li>United Nations databases</li> <li>Industry related journals                             <ul style="list-style-type: none"> <li>- marketing</li> <li>- supply chain management</li> <li>- logistics</li> <li>- textile and apparel</li> <li>- management</li> </ul> </li> <li>Industry literature/textbooks                             <ul style="list-style-type: none"> <li>- international trade</li> <li>- supply chain management</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>Explains the market characteristics</li> <li>Information on regions and/or countries that have prospered in these markets.</li> <li>Identified the top countries trading with the U.S.</li> </ul>
Step 4	<ul style="list-style-type: none"> <li>Identify the sample and provide Background analysis of each company That will be interviewed.</li> </ul>	<ul style="list-style-type: none"> <li>U.S. Census Data</li> <li>S&amp;P Industry Surveys                             <ul style="list-style-type: none"> <li>- apparel and footwear</li> <li>- bed and bath furnishings</li> </ul> </li> <li>Internet research</li> <li>Trade periodicals                             <ul style="list-style-type: none"> <li>- Home Textiles Today</li> </ul> </li> <li>Trade Associations                             <ul style="list-style-type: none"> <li>- National Retail Federation</li> <li>- American Apparel and Footwear Association</li> </ul> </li> <li>U.S. Securities and Exchange Commission</li> <li>Harris Textile Manufacturing</li> <li>Harris Apparel Manufacturing</li> </ul>	<ul style="list-style-type: none"> <li>Identified the NAICS and SIC codes needed to define the bottom weights and bed-bath product categories</li> <li>Identified market characteristics specific to the two categories</li> <li>Identified the major companies involved in the bottom weights and bed-bath industries with the corresponding NAICS and SIC codes in order to identify the sample size in Phase II</li> <li>Identified the market share held by companies in the two markets</li> <li>Identified sales data from 1999-2003, as well as other company information                             <ul style="list-style-type: none"> <li>- location</li> <li>- manufacturing locations</li> <li>- product mix</li> <li>- percent growth over the past five years</li> </ul> </li> <li>Identified the top countries, other than the U.S., producing bottoms and bed-bath products</li> </ul>
Step 5	<ul style="list-style-type: none"> <li>Analyze Steps 1-4</li> </ul>	<ul style="list-style-type: none"> <li>Excel</li> <li>Discussion</li> </ul>	<ul style="list-style-type: none"> <li>Assist in sample selection (include various tiers for priority)</li> <li>Assist in the Phase II development of a questionnaire instrument                             <ul style="list-style-type: none"> <li>- company research for detailed interviews</li> <li>- select the key countries involved in the two markets</li> </ul> </li> </ul>

Source: Jones, M. (2004)

## **Analysis – Phase I**

Phase I results provided the contributions listed in Table 5, the data collection instrument. Step one identified the major trade disparities that emerged in the secondary data, as well as a brief summarization of each factor. The data also provided a brief description of global factors of competitiveness for the textile and apparel industry.

Step two focused on industry trends within the textile and apparel market. The five major trends were identified and explained with supporting data from the literature. A brief description of the current textile and apparel supply chain were also provided.

Step three separated the bottom weight and bed-bath markets. These markets had particular trends that occurred because of quota removal on January 1, 2005. Consumer trends for these particular markets were included in the analysis.

Step four separated the various products by international standard product code. This allowed the data from each country and company to remain consistent. Next, the companies within each market were listed according to sales, growth rate, and product mix. The top countries for each market were researched in order to identify global leaders for the chosen products.

Step five used the sample selection process to name the companies interviewed during Phase II of the study. It was important to name the companies because all background data was researched before contacting the respondents. That ensured an efficient and effective interview process. The interview questionnaire was also developed in step five to structure the meetings with the

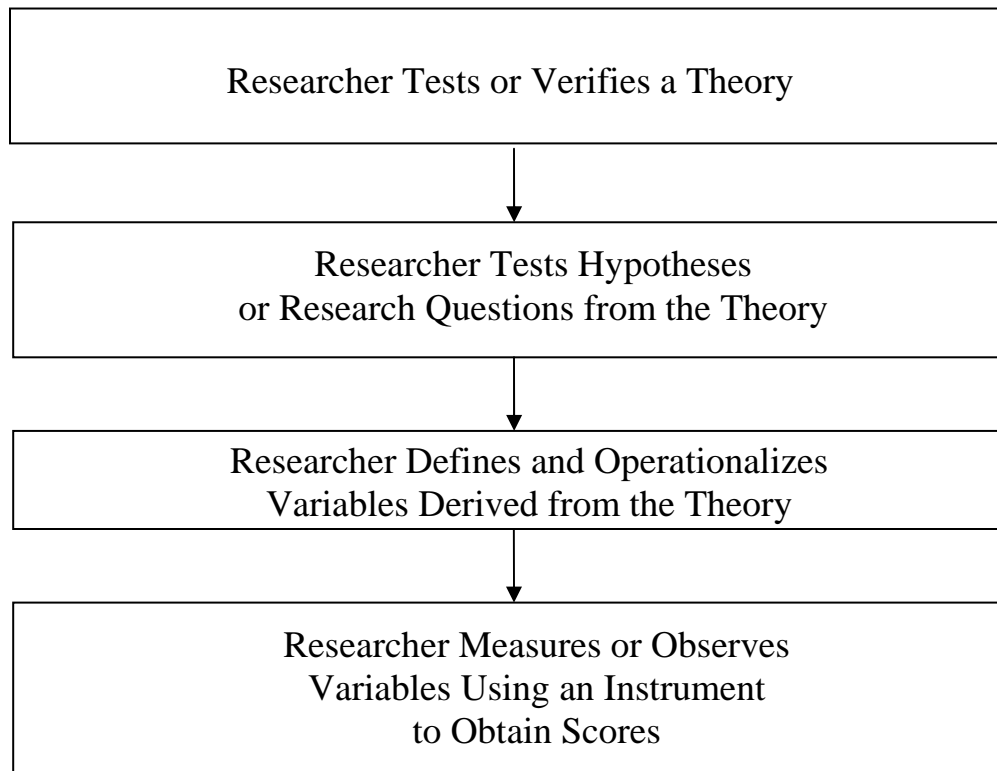
executives. Along with the company selection, the five key countries involved in each market were identified for further research. Refer to Appendix C for annual trends of each of the leading countries for each market.

## **PHASE II – DEDUCTIVE THEORY**

The deductive theory used in the study answered a portion of the research questions. After the Phase II (primary data collection) was complete, the following research questions were answered:

1. Which countries are the best trade partners in bed/bath and bottom weights textiles?
  - a. How can textile and apparel companies quantify various countries in terms of trade factors?
2. What are the global factors of competitiveness in the bottom weight and bed/bath markets?

After the interviews, the executive responses were compared to the data collected in Phase I of the study. That allowed for comparison of primary and secondary data regarding the trade factors determined in this study. Executive responses either validated or rejected the secondary data through experienced industry perspectives.



**Figure 17: Deductive Theory for Mixed Methods Research**

Source: Creswell, J. (2003). *Research Design: Qualitative, Quantitative, and Mixed Method Approaches*, 2nd ed. Thousand Oaks, CA: Sage Publications.

### **Sample Selection**

The sample selection process included six groups: bed-bath retailers, U.S./U.S. bed-bath manufacturers, U.S./U.S. & Offshore bed-bath manufacturers, bottom weights retailers, U.S./U.S. bottom weights manufacturers, and U.S./U.S. & Offshore bottom weights manufactures. The manufacturing companies have very different strategies, including various plant locations. To separate the manufacturers into subgroups, the following descriptions of each category were established:

- U.S./U.S. manufacturers – U.S.-based company with more than 50% of its manufacturing in the United States

- U.S./U.S. & Offshore manufacturers – U.S.-based company with more than 50% of its manufacturing offshore in other countries

The selection began by identifying the key players involved according to the corresponding NAICS and SIC codes found during secondary data. Once the companies involved in the given NAICS and SIC descriptions were identified, information was gathered and put into a spreadsheet. The information gathered included: location, sales from 1999-2003, growth rates from 1999-2003, and the market share that the company had for either bottom weights or bed-bath products, if available. The product mix and manufacturing locations were defined for the U.S. and U.S. & Offshore manufacturers, while the distribution channel was found for the U.S. retailers. The methods for narrowing down the sample size for the six categories differed due to the information available for each category.

Once the population was narrowed down and the sample for each market was chosen, the sample was validated with leaders of major companies involved in both markets. The chosen sample was put into three tiers with tier one being the chosen sample. Tier one companies were chosen first, and the other remaining companies were narrowed down into two additional tiers using the same process. The additional tiers were created in the instance that a tier one company would not comply to participate or could not be contacted. The criteria used to narrow down the sample and process used to validate it are explained in the following sections.

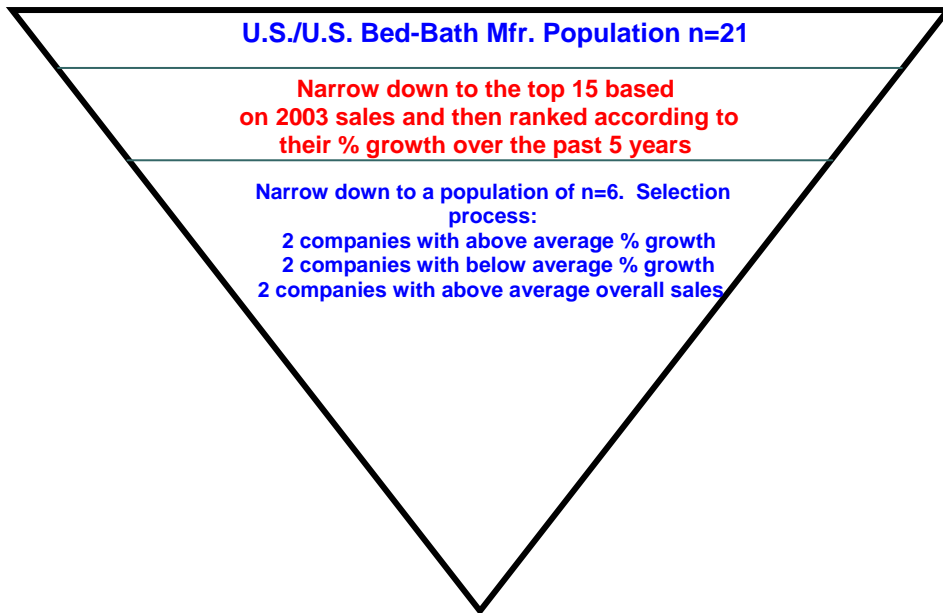
## **Sample Selection: Bed-Bath Market**

### *U.S. Bed-Bath Manufacturers*

1. Twenty-one U.S. bed-bath manufacturers were identified that were classified under the chosen NAICS and SIC codes. These 21 manufacturers were ranked based on their 2003 sales.
2. The top 15 companies based on their 2003 sales were chosen and then ranked based on their average sales growth from 1999 to 2003.
3. To ensure a representative sample, two companies with an above average percent growth were chosen, along with two companies with a below average percent growth and two companies with above average overall sales.

Therefore, the sample size for U.S. bed-bath manufacturers was six. Figure 18 is a model that illustrates the sample selection process.

4. There were two exceptions: 1. A company with above average percent growth was a leading manufacturer but produced a small amount of bed and bath products. Therefore, two other companies were chosen that also had, though not as high, above average percent growth; 2. The home furnishing sales of a company with below average percent growth was only 8%. Therefore, another company with below average percent growth was chosen.
5. Of the companies selected, those who have over 50% of their manufacturing off-shore were considered offshore manufacturers, and those with over 50% of their manufacturing in the U.S. were considered U.S. manufacturers.



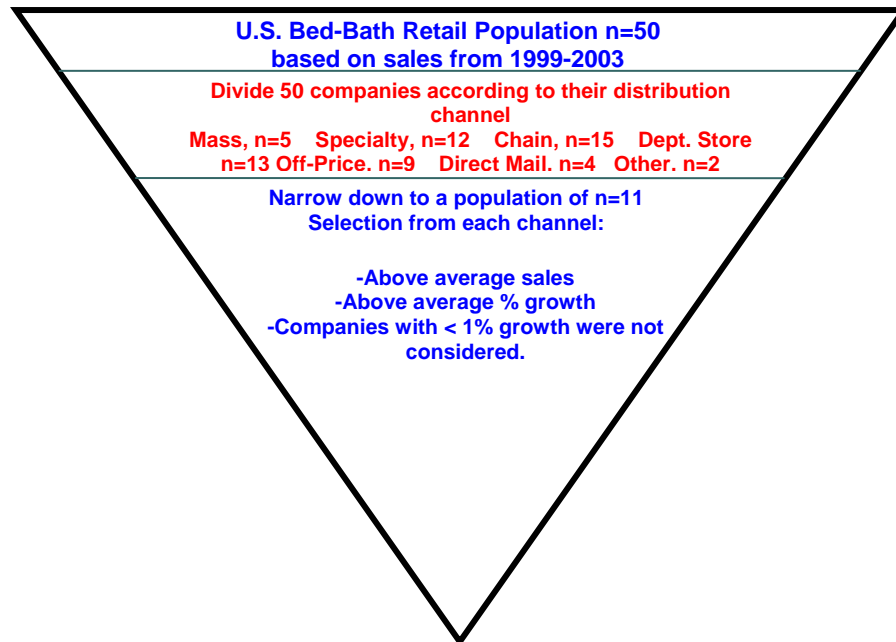
**Figure 18: Sample Selection Process: U.S. Bed-Bath Manufacturers**

Source: H. Nowell, L. Cesca, and M. Jones (2004)

*U.S. Bed-Bath Retailers*

1. The top 50 retailers were identified based on their average home textile sales over the past five years: 1999-2003.
2. The top 50 retailers were then divided into groups based on their distribution channel: mass, specialty, chain, department store, off-price, direct mail, and other.
3. From each distribution channel a company with above average sales and a company with above average percent growth were chosen. Two bed-bath retailers, according to above average sales, were specialty stores. Therefore, three companies were chosen from the specialty retailers.
4. If negative growth or growth less than 1%, the retailer was not considered. The direct mail and other channels' market share in bed-bath were not very

significant. Therefore, representatives from those two channels were not chosen. Figure 19 is a model that depicts the sample selection process.



**Figure 19: Sample Selection Process: U.S. Bed-Bath Retailers**

Source: H. Nowell, L. Cesca, and M. Jones (2004)

### ***Sample Selection: Bottom Weights Market***

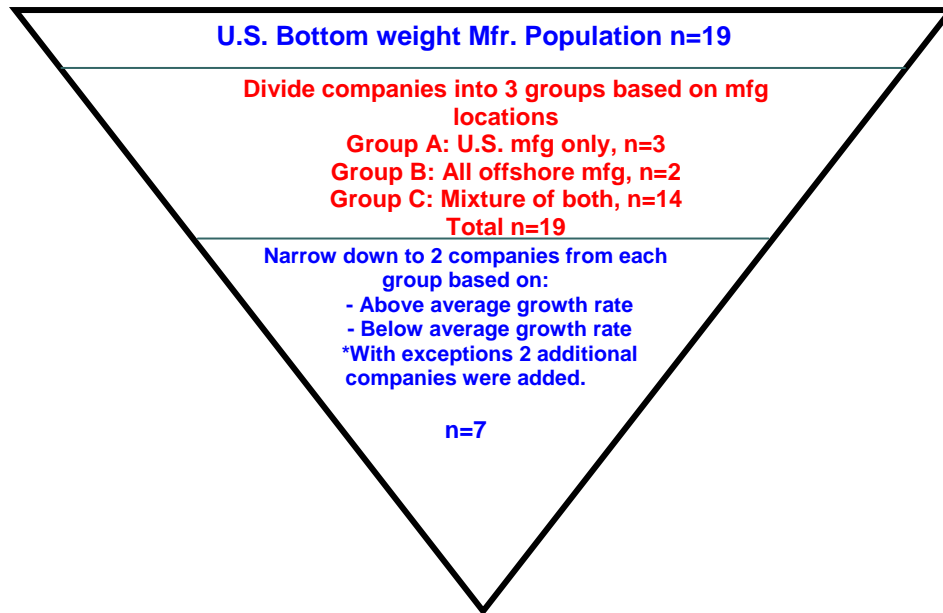
#### ***U.S. Bottom Weight Manufacturers***

1. United States bottom weight manufacturers classified under the chosen NAICS and SIC codes were identified. The population of U.S. bottom weight manufacturers was 19. These companies were ranked based on their 2003 sales.
2. The companies were then divided into three groups based on their manufacturing locations and sourcing strategies: A) manufacture only in the U.S., B) manufacture only offshore, C) mixture of both domestic and offshore manufacturing. There were two companies with no manufacturing in the



United States. Therefore, they were eliminated and were considered a global manufacturer.

3. The companies were then ranked based on their average percent growth from 1999-2003.
4. To ensure a representative sample two companies with above average percent growth were chosen, along with two companies with below average percent growth and two companies with above average overall sales. The tier one sample size for U.S. bottom weight manufacturers was seven. Two additional tiers were chosen in the instance that a tier one company would not comply with the study. Figure 20 is a model that illustrates the sample selection process.
5. There were a few exceptions: 1. The companies for which no financial information could be found were eliminated from being a possible tier one company. They were automatically put into tier three; 2. The companies with below average percent growth were chosen due to their reputation and market share in the bottom weights business.
6. Of the companies selected, those who have the majority of their manufacturing off-shore were considered off-shore manufacturers, and those with the majority of their manufacturing in the U.S. were considered U.S. manufacturers.



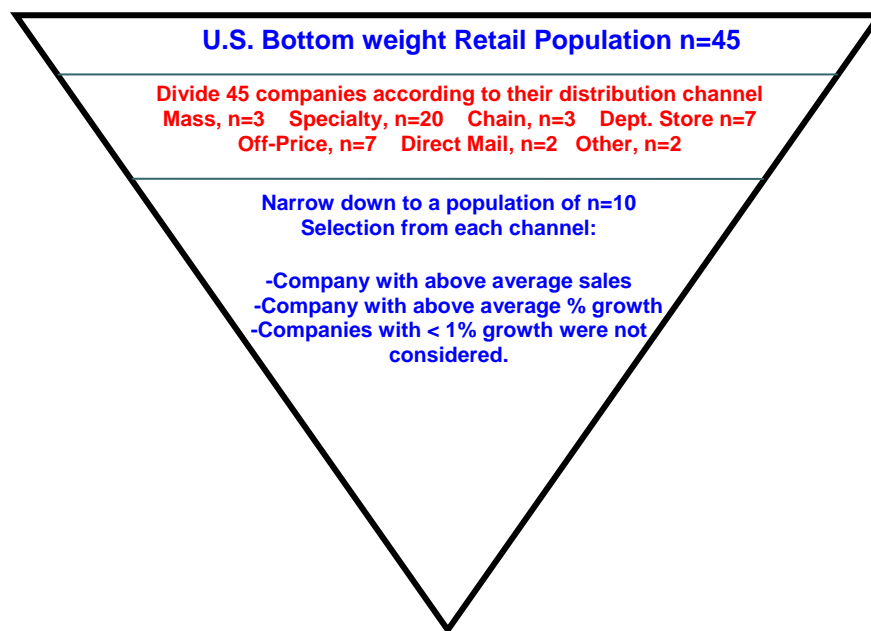
**Figure 20: Sample Selection Process: U.S./U.S. Bottom weight Manufacturers**

Source: H. Nowell, L. Cesca, and M. Jones (2004)

*U.S. Bottom Weight Retailers*

1. A listing of U.S. bottom weight retailers was obtained by a compilation of three sources: Standard & Poor's Retailer Company Analysis Report (2004), *Apparel's* annual Top 50 report (2004), and *Stores'* (July 2004) Top 100 Retailers. This resulted in a population of 45 retailers.
2. The 45 retailers were then divided into groups based on their distribution channel: mass, specialty, chain, department store, off-price, direct mail, and other.
3. From each distribution channel the company with above average sales and the company with above average percent growth were chosen with the exception of the direct mail and other channels whose market share was insignificant. Companies with a growth rate of less than 1% were not considered.

4. Exception: For the specialty retail channel, an additional company with above average growth rate was chosen because their product mix was geared more towards denim and bottom weights more so than a few others.
5. Exception: For the specialty retail channel, an additional company with above average growth rate was chosen because their product mix was geared more towards denim and bottom weights than others in the sample population.



**Figure 21: Sample Selection Process: U.S. Bottom weight Retailers**

Source: H. Nowell, L. Cesca, and M. Jones (2004)

### **Sample Validation**

Once the proposed sample for each market was selected, a group of leaders from major companies involved in each market was chosen to validate the sample. Two industry representatives from the bed-bath market were used, and three representatives from the bottom weights market were used to validate the sample. Each representative was given a copy of the chosen sample and was asked to give

their opinion as to whether each company would be a significant contribution to the study. The representatives were also asked to validate the selection of countries to evaluate in Phase I of the study. Last, they were asked if there were any other companies or countries that have been left out that should not be overlooked. The additional companies proposed by the industry executives were added to the sample. Based on the results, companies were contacted to participate in the study. Table 6 illustrates the title of each individual that validated the sample.

**Table 6: Industry/Market Experts Used to Validate Sample**

<b>Bottom Weights</b>	<b>Position</b>
Executive 1	Division Director of New Product Development, Fashion Apparel & Specialty Products
Executive 2	VP, Product Development
Executive 3	VP, Merchandising
<b>Bed-Bath</b>	<b>Position</b>
Executive 1	President, CEO
Executive 2	President, Creative Products

### **Data Collection – Phase II**

The second phase of the research collected quantitative, primary data through surveys with a sample of bed/bath and bottom weight industry members. The surveys used open and closed-ended questions in order to formulate an instrument measuring countries with interval and ordinal methods. The survey will provide data necessary to test theories described by the literature. The survey was focused on asking the industry members about their company, personal experience,

and knowledge regarding the research questions. The survey process followed the methodology established by Bruce & Daly (2004). The methodology followed the following steps:

1. Select the industry executives to interview including: sourcing executives, retail purchasing managers, or supply chain managers.
  - a. These industry members represented the companies selected in the sample selection process.
2. Contact the interviewee by letter explaining the purpose and value of the research. Then, ask for their cooperation.
3. Contact the interviewee by phone to have an interactive conversation providing more details about the proposed research and arrange an interview.
4. Conduct semi-structured interviews using an aide-memoire, which allows for comparisons to be made, along with flexibility in responses. An aide-memoire is, “a written summary or outline of important items of a proposed agreement or diplomatic communication.” (Merriam Webster online, 2004)
  - a. The interviews will contain questions that will answer the specific research questions of the study.
5. Finally, the interviews will be analyzed to observe any emerging trends.

The survey instrument consisted of three sections. The interviews were conducted by three researchers, using the same sample companies, for three thesis projects. The research questions for this study are located in Section three of the collaborated survey. The survey instrument included the following sections:

- Section 1 – Supply chain configurations and vendor performance. (Study by H. Nowell: “*Market Competitiveness in the Global Textile Supply Chain: Examination of Supply Chain Configurations,*” 2005)
- Section 2 – Logistics cost structures. (Study by L. Cesca: “*Economic Competitiveness in the Global Textile Supply Chain: Examination of Logistics Cost Structures,*” 2005)
- Section 3 – International trade disparities and factors affecting the level playing field. (This study by M. Jones, 2005)

Those surveyed listed countries involved in the global supply chains used by textile and apparel companies in the bed-bath and home textiles markets. The list of leading countries presented market preferences between countries by understanding core competencies and the benefits of using particular regions. The countries involved in the global textile and apparel supply chain were also assessed with an interval measurement system as industry members will be asked to give them a non-comparative performance rating. The interval measurements from the in-depth interviews will present attitudes or opinions about certain countries being used along the global supply chain model. The survey instrument is located in Appendix B.

### **Analysis – Phase II**

After the respondent interviews were complete, the data was analyzed. The qualitative secondary research and the quantitative primary research were integrated. The first phase of the research provided a clear picture of the dynamic environment of the global textile and apparel supply chain. The quantitative data

was integrated with the qualitative data to form an instrument to compare the perceptions of the industry leaders surveyed with the actual situation described by the literature. All companies interviewed were placed into the population of respondents so that the five major trade factors' impact on the population could be studied. The analysis then shifted to separating companies from each market. Analysis compared and contrasted the executives' perceptions of the trade factors researched in Phase I of the study. The analysis also revealed the countries that emerged as probable international trade partners in the global textile and apparel supply chain. Specifically, countries that would be best suited to produce bed/bath and home textiles products according to the respondents that were interviewed.

### **Operational Definitions**

**Bed-bath:** Textiles in the bed-bath sector of the home furnishings industry: sheets, towels, pillowcases, and washcloths.

**Bottom weights:** Woven bottoms made of cotton dominant fabric: ex. Denim and khaki.

**Compliance:** Conforming to established standards regarding social and environmental issues.

**Economic Competitiveness:** A function of a successful supply chain structure and the metrics used to measure the performance of a supply chain in order to sustain a growing business in a global economy by retaining profitability.

**Employee Benefits:** The health and retirement portion of an employee's total compensation.

**Full Package:** A sourcing strategy used in which one entity of the supply chain takes full responsibility of managing the entire supply chain. That person is responsible

for sourcing and/or manufacturing every aspect of a product, as well as getting that product to the customer.

**Global Manufacturer:** Global manufacturers include 2 sub-categories:

1. U.S. manufacturers who do not own any of their own facilities, but instead source all manufacturing off-shore.
2. U.S. manufacturers that produce over 50% of their goods (according to volume) off-shore.

**Intellectual Property:** (IP) is a product, process, or technology that has a patent or legal right associated with it.

**Sourcing Agent:** A company who act as an intermediary to retailers and global manufacturers. They generally take responsibility of the supply chain up until products are shipped to retailers.

**Subsidy:** A government imposed benefit, usually in an effort to support particular industries from sudden market changes. They can be direct or indirect.

**Supply chain structure:** What the supply chain looks like from raw material to consumer. This will include the flow of materials, the flow of information, as well as the geographical locations involved.

**U.S. Manufacturer:** U.S. based manufacturer that produces over 50% of their goods in the United States. These manufactures may also own facilities off-shore or source other components to make-up a finish product.

**U.S. Retailer:** U.S. based retailers that purchase goods from both U.S. and global manufacturers.

**Vendor:** Supplier



## CHAPTER IV

### RESULTS

#### Sample Description

The group selected the tier one companies to contact first. The team met with eight tier one manufacturers out of thirteen attempted contacts. The team also met with one tier two manufacturer, two mass retail stores, one department store, two specialty retailers, one off-price retailer, one sourcing agent, and two auxiliary companies that deal directly with apparel retailers.

The sample contained 18 total companies with 33 total respondents. The interviews were conducted by the research team from December, 2004 through February, 2005. The team traveled to all of the meetings, except for two that were conducted via telephone conference call. The team traveled throughout the Southeastern and Northeastern United States to capture the manufacturing and marketing companies in the sample. The group also traveled to South East Asia and to the Central American sourcing hub in order to gather the primary data from the two major offshore regions involved in this research.

The 33 executive respondents participated with the research team in the form of in-depth interviews containing open and closed-ended questions with dialogue. Within the sample respondents, five were CEO or President, nine were Vice President, and six were Managing Directors within their respective firms. The entire group of sample respondents averaged 24.8 years of experience in the textile and apparel industry. Not only were the respondents experienced in the industry, they were surprisingly candid with their responses. The strong sample, along with the

experienced respondents, ensured highly credible information to analyze in Phase II of the study.

**Table 7: Sample Description**

<b>Market</b>	<b>Company Category</b>	<b>Company Name</b>	<b>Location</b>	<b>Reason Chosen</b>
Bed-bath	US/JIS-Offshore Manufacturer	<b>Company A</b>	Southern United States	Above Average Sales
Bed-bath	US/JIS-Offshore Manufacturer	<b>Company B</b>	Southern United States	Below Average Growth Rate
Bed-bath	Retailer	<b>Company C</b>	Northeastern United States	Above Average Sales & Growth Rate
Bed-bath	Retailer	<b>Company D</b>	Southern United States	Niche Market Share
Bed-bath	Retailer	<b>Company E</b>	Southern United States	Above Average Sales
Bed-bath	Retailer	<b>Company F</b>	Northern United States	Above Average Growth Rate
Bottom weights	US/JIS Manufacturer	<b>Company G</b>	Southern United States	Market Leadership
Bottom weights	US/JIS Manufacturer	<b>Company H</b>	Southern United States	Market Leadership
Bottom weights	US/JIS Manufacturer	<b>Company I</b>	Southern United States	Above Average Sales & Below Average Growth Rate
Bottom weights	US/JIS-Offshore Manufacturer	<b>Company J</b>	Southern United States	Below Average Growth Rate
Bottom weights	US/JIS-Offshore Manufacturer	<b>Company K</b>	Central United States	Above Average Growth Rate
Bottom weights	US/JIS-Offshore Manufacturer	<b>Company L</b>	Southern United States	Niche Market Share
Bottom weights	US/JIS-Offshore Manufacturer	<b>Company M</b>	Southern United States	Above Average Sales
Bottom weights	Retailer	<b>Company N</b>	Western United States	Above Average Sales
Bottom weights	Retailer	<b>Company O</b>	Central United States	Above Average Sales
Both	Sourcing Agent	<b>Company P</b>	Asia	Above Average Sales
Auxillary	Global Manufacturer	<b>Company Q</b>	Asia	Niche Market Share
Auxillary	Label, Tags & Printing Suppliers	<b>Company R</b>	Northeastern United States	Niche Market Share

## **PHASE I – SECONDARY DATA COLLECTION**

As described in the methodology of the research, several key areas of data were collected and analyzed. Five distinct steps were followed in order to efficiently and effectively focus the research and organize the secondary data for Phase I of the project. Refer to Table 5 in the Data Collection – Phase I section of the methodology.

### **Analyze Trade Factors (Step One)**

After conducting Phase I of the research methodology, five trade factors emerged as key points of interests affecting U.S. companies' ability to remain competitive in the global textile industry. Specifically, companies in the bottom weights and bed/bath markets were affected by these factors. Other sectors of industry may also realize similar effects due to these factors, but they were not included in this research. Five major trade factors that create a disparity for U.S. textile and apparel companies versus foreign competitors are listed below.

- Currency exchange rates
- Environmental and social compliance
- Intellectual Property Theft
- Federal subsidies
- Employee Benefits Plans

#### ***Currency Exchange Rates***

Currency exchange rates are determined by a country's government. Exchange rates affect the value of a currency against other countries' currencies, and can create an advantage or disadvantage during international trade. Many

countries in East and Southeast Asia have currencies “pegged” to or tightly controlled against the “floating” currencies of the rest of the world. By not allowing currency to float according to markets, it could create a distinct trade advantage for the exporting country.

Economists at the UBS believe that all major currencies in Asia are considered under valued against the U.S. dollar, except for Indonesia (*The Economist*, 2003, PAGE#). The Swiss bank has determined this through a system of measuring two things: 1. the speed of growth in a country’s reserves, and 2. the size of a country’s basic balance.

The governments of these developing countries often claim that the currencies must be tightly controlled and allowed little flexibility to help maintain a stable economy. The officials are trying to stave off another incident similar to the one in the late 1990’s when many Asian currencies dropped dramatically.

### ***Environmental and Social Compliance***

Environmental regulations include government mandated processes and procedures to ensure proper care is taken of our natural habitat. They aim to reduce the amount of damage that manufacturing and other human activities have on the natural habitat we live in, while maintaining the necessary industries that fuel the domestic economy. The United States Environmental Protection Agency, or EPA, limits the levels of effluent released into streams and rivers, as well as emissions exhausted into the air. Environmental regulations account for approximately \$0.88 per hour worked at U.S. manufacturing locations. Subsequently, that amounts to around 19% of the total overhead costs imposed by the U.S. government. (Leonard,

2003) Environmental regulations are vital to maintaining the safety of working conditions for employees as well as the environment. Most other countries have environmental regulations in place, but the disparity occurs when there is the lack of enforcement. Specifically, developing countries are notorious for having more lax regulation of the environmental policies. China has eight of the world's ten most polluted cities, and the Chinese government has paid up to 8% of the total GDP to correct environmental issues due to pollution caused by manufacturing.

Conversely, a major compliance cost imposed on developing countries is called social compliance. These are costs that companies incur while abiding to regulations set by major retailers. Companies that build facilities in developing countries usually take advantage of lower wages. Major retailers and downstream members of the supply chain have put increasingly more pressure on the factories to adhere to social compliance standards. These standards are audited in areas such as: hours worked, overtime pay, age, safe working conditions, etc. U.S. and other industrialized countries' culture have prohibited any violations in these areas. It is generally accepted to assume that companies within those countries are complying.

Groups such as the Worldwide Responsible Apparel Production (WRAP) have put stringent regulations in place to ensure proper treatment of the workers in these developing regions. Usually a factory is given two chances to make proper changes to become a compliant vendor. If they cannot comply, they are removed from the approved vendor list. Several major retailers that are touted as having some of the strictest compliance regulations are Nike, the Gap, and Reebok.

### ***Intellectual Property Theft***

Intellectual Property (IP) is a product, process, or technology that has a patent or legal right associated with it. IP has increasingly been stolen as goods are copied in the market place. As the internet and communication technology speed up the world of development, it is easier to knock off a product or process. The Chinese government realizes that this is a major problem in their country and publicly claims that it is on their list of priorities to tend to. This is especially important since the WTO members must abide by the rules established within the Trade-Related aspects of Intellectual Property Rights (TRIPS), which says that countries must protect and enforce IP rights. Unfortunately, many consumers do not realize it when they purchase IP-infringing goods. Some companies have claimed that the cost of losing IP in certain regions, namely China, discourage foreign investment.

### ***Federal Government Support***

Federal subsidies are used to help a domestic industry against sudden, short-term changes in certain markets. Initially, the U.S. government designed plans to help release the pressures of liberalized trade by presenting resources to companies. The primary purpose was to lessen the severity of certain industry changes that impacted companies. As time progressed, the government began passing bills that were sometimes referred to as protectionist. Unfortunately, many companies have not adjusted their strategies fast enough and relied on these temporary support plans until they could no longer compete without them.

Overseas, China has clearly been targeted for their use of government support to help build a sustaining textile and apparel industry. The Chinese government, due to the nature of its politics, can assist certain industries and use measures to make it difficult for others to penetrate into their market through local and federal laws regarding foreign investment. Various types of financial support provided by federal governments include:

- direct subsidies
- interest-free and concessional loans
- loan guarantees and default insurance
- tax write-offs
- accelerated depreciation allowances
- reduced social security contributions for employees
- public ownership

Duties and tariffs are also factors to consider when conducting business offshore. Each country has its own laws regarding import taxes, or tariffs, as well as other duties which are usually paid as a percentage of the value of shipments. The United States applies a somewhat low rate of tariff on imported goods making its markets more accessible to foreign products. Other countries with higher import tariffs create a beneficial situation for their own domestic markets because the cost to export to those countries will increase due to the higher tariff rate. This is a method used by countries to protect particular markets that their governments feel could be threatened by lower cost imports.

Table 8 lists the ten leading countries from the bottom weight and bed/bath markets along with their respective rate of import duties and tariffs in March of 2005. These rates are applied to the vast majority of shipments entering the ports. Other tariffs may be added, depending on the product. It is noted that the U.S. imposed the lowest rate of 12% for incoming goods, making imports more competitive than U.S. products being shipped abroad. For instance, a product that costs \$100 shipped into India would have a total imported cost of \$125. The same product being shipped from India to the United States would have a total imported cost of \$112. With the elimination of quotas in 2005, many industries are lobbying for the U.S. government to increase the duties and tariffs so that domestic products remain competitive against imports.

**Table 8: Import Duties and Tariffs by Country in 2005**

<b>Country</b>	<b>Import Duties &amp; Tariffs</b>
Brazil	39%
India	25%
Turkey	18%
Hong Kong	17%
D.R.	17%
China	17%
Pakistan	15%
Mexico	13%
Honduras	13%
U.S.	12%
Guatemala	12%

Source: U.S. Customs and Border Patrol (2005) [www.uscbp.gov](http://www.uscbp.gov)

### ***Employee Benefits Plans***

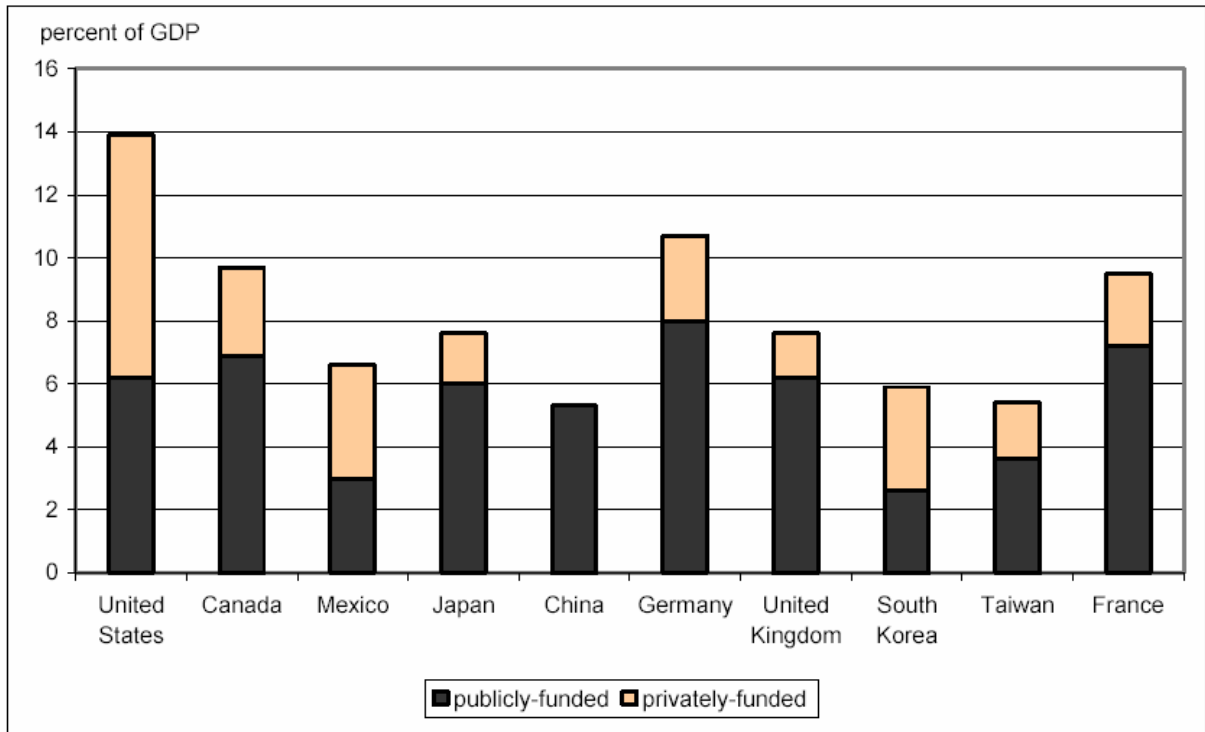
Employee benefits plans vary greatly from country to country. They include health and retirement funds for workers. U.S. companies pay around \$1.41 per hour worked for benefits plans, or 31% of the total overhead cost imposed by



government. Both publicly and privately funded benefits plans exist. The privately funded plans are considered more attractive because they offer better quality, more choice, and greater flexibility. As costs for these plans increase, the domestic companies struggle to maintain the quality plans. The costs of these plans put strain on companies that are already struggling in the global market. Small companies are especially impacted by the trend.

U.S. workers have 20.6% of their total compensation taken and put into benefits, while Chinese workers only have 8.0% taken for benefits plans. As a country, the U.S. spends more on health care as a percent of GDP than any other country in the world. Health care, specifically, has grown at a rate faster than inflation over the last few years. Figure 22 depicts health care costs in the U.S. and its nine largest trade partners. A major component of rising health care costs are that the population is aging. The 'baby-boomers' are beginning to retire, while manufacturing employment is declining. This trend puts more pressure on the private company's economic competitiveness.

**Publicly and Privately Funded Health Care Expenditures in the United States and Its Nine Largest Trading Partners, 2001**



Source: Organization for Economic Cooperation and Development and World Bank

Notes: Data for China reflects total health expenditure; no public-private disaggregation is available. Data for Taiwan date from 1996 and are taken from Eva Liu and Joseph Lee, "Health Care Expenditure and Financing in Taiwan," Hong Kong Provisional Legislative Council Secretariat report, June 1998.

**Figure 22: Health Care Costs in the U.S. Compared to its Largest Trade Partners**

***Global Factors of Competitiveness***

The main factors of global competitiveness in textiles and apparel are somewhat subjective. Several studies have indicated major factors of competitiveness for textile and apparel companies (Abbott, M. 2004, Byoungho, J. 2004, & Leggett, K. 2002). The following list describes the six major areas that a global strategy must consider:

- Business Climate

- Infrastructure
- Proximity to Market
- Labor and Management
- Raw Material Availability
- Service and Reliability

A strategic plan must take all of the factors into consideration in order to create a successful global strategy in the dynamic textile and apparel industries. A plan may be successful without optimizing all of the factors, but overall a company must take advantage of at least one of these factors to ensure its competitiveness.

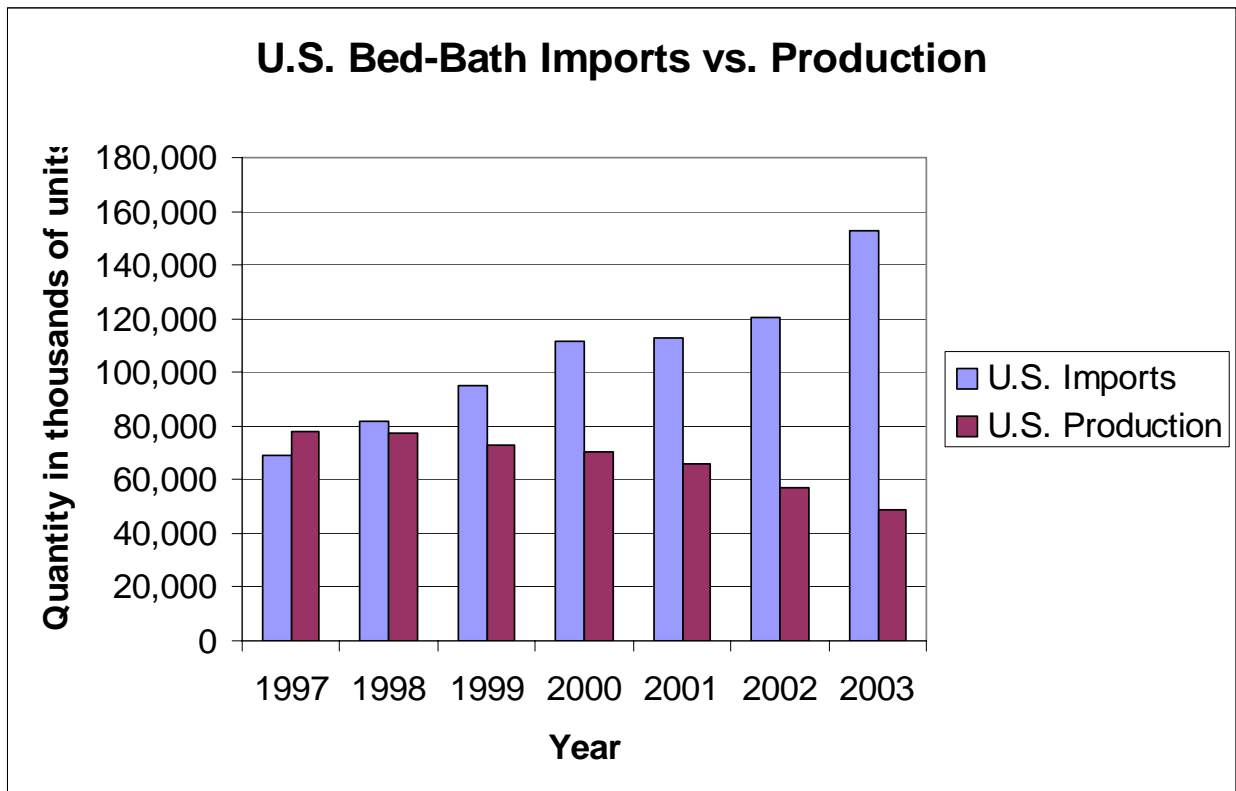
### **Identify Textile and Apparel Industry Trends (Step Two)**

The textile and apparel industries have witnessed remarkable shifts over the last ten years. As trade liberalization became more of a reality, U.S. manufacturers were losing market share to global competitors. As quantitative limits were lifted on January 1, 2005, the influx of imports had already begun.

#### ***Textiles***

Textile products are a broad classification of fabrics made from natural or manmade fibers. Textiles are complex products that are generally produced by spinning a fiber into a yarn, weaving or knitting the yarn, and dyeing and finishing the fabric to achieve functional and/or aesthetic properties. The U.S. textile producers historically set up manufacturing to produce long run, high efficiency processes to maximize production. The textile industry has evolved and as consumers and retailers drive the supply chain, they wanted more short-run manufacturing with more style changes to account for consumer demand. Additionally, a big push in

supply chain management has reduced inventory levels throughout the chain in order to eliminate money tied up in products that are not being sold. Figure 23 depicts the industry trends of U.S. production versus imports of bed/bath products.



**Figure 23: U.S. Bed/Bath Textile Trends 1997-2003**

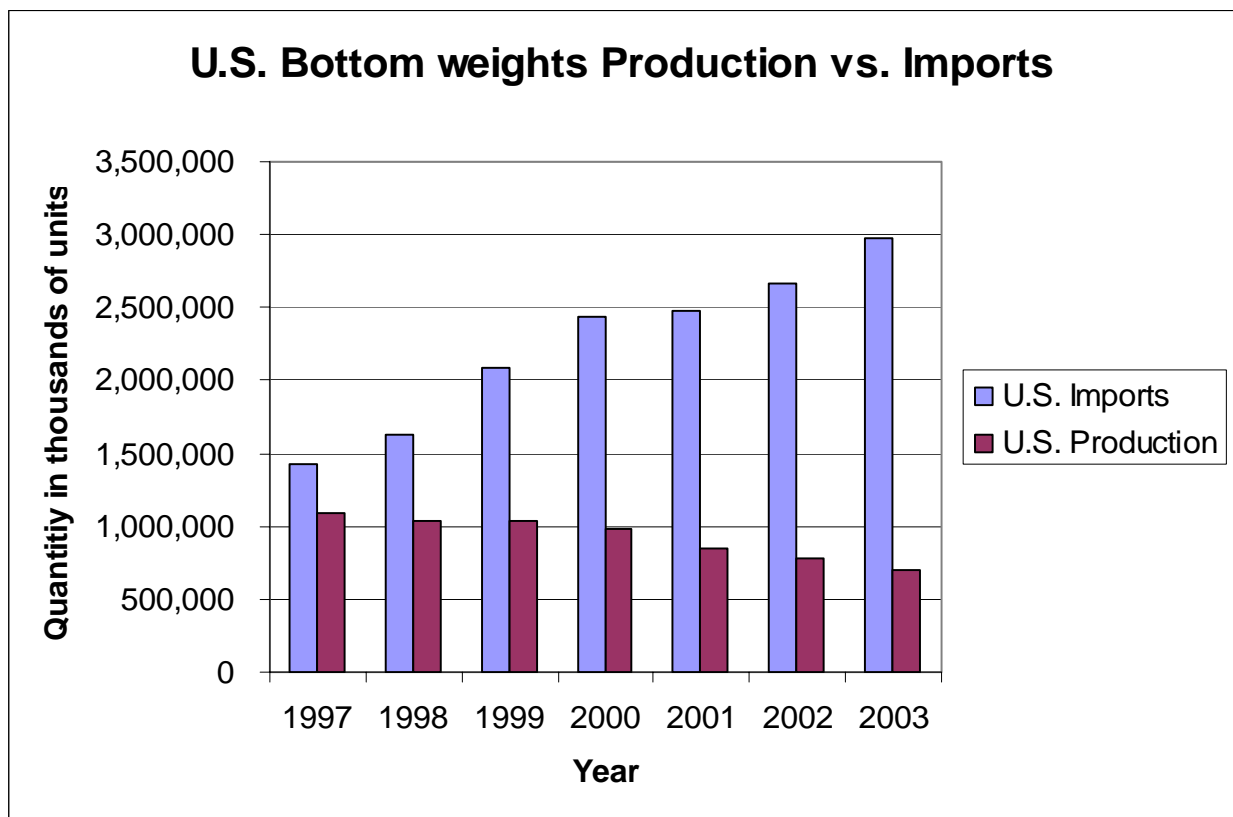
Source: 1997-2003. Current Industrial Reports: Bottom Weight Apparel. (Online), September 20, 2004. U.S. Census Bureau, <http://www.census.gov/cir/www/>

### ***Apparel***

Apparel products have similar industry trends, due to the nature of the manufacturing. Smaller orders impact the domestic manufacturers by forcing more style changes, thus creating more disruptions in production. This is especially true

with apparel goods. Consumers want more seasons, which forces retailers to order smaller quantities of goods. Figure 24 shows the production trend of bottom weight apparel in the United States. Apparel manufacturing involves low capital expenditure and heavy manual labor. Therefore, it is most beneficial to operate in an environment where a few factors benefit the bottom line. Those factors usually include the following:

- Labor force and cost
- Fabric availability
- Proximity to market



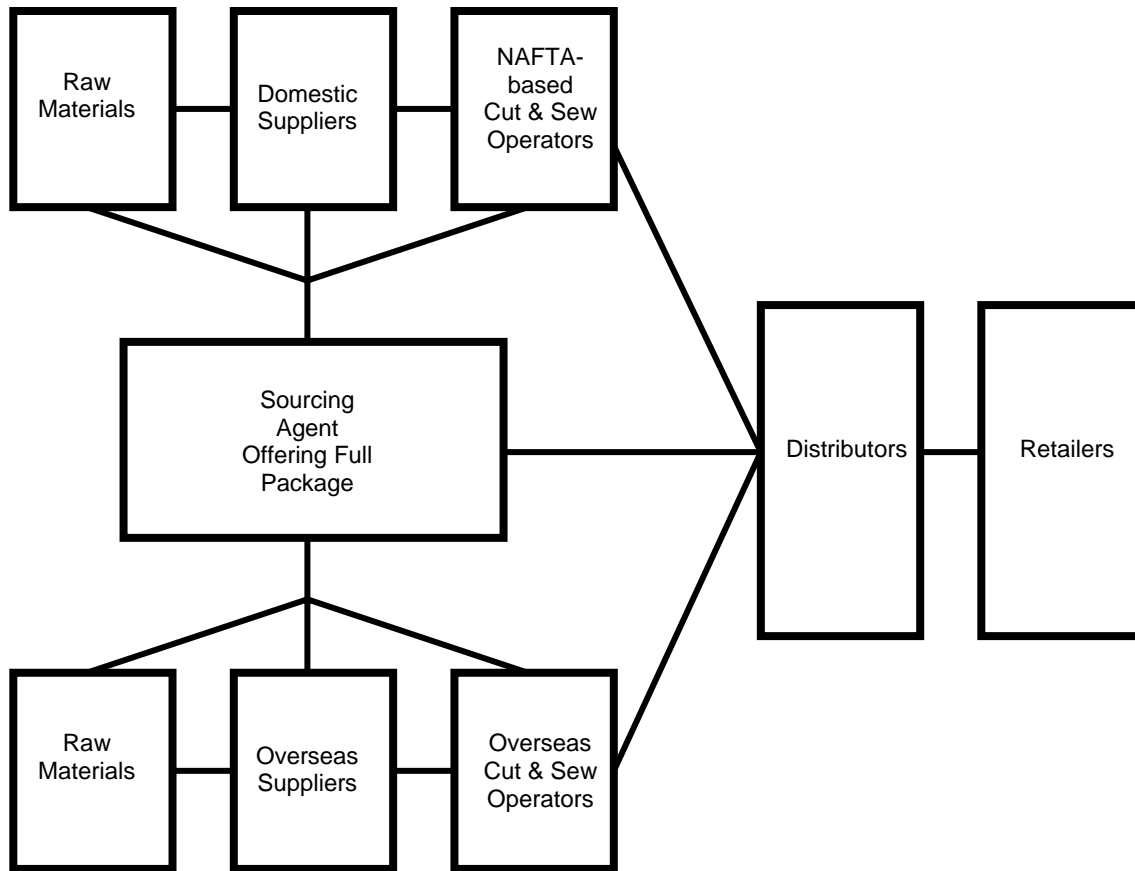
**Figure 24: U.S. Bottom Weight Apparel Trends 1997-2003**

Source: 1997-2003. Current Industrial Reports: Bottom Weight Apparel. (Online), September 20,

2004. U.S. Census Bureau, <http://www.census.gov/cir/www/>

### ***Current Textile and Apparel Supply Chain Structure***

As the global textile and apparel industry evolves, so does its supply chain. Retailers generally drive the supply chain and have had to source products from various regions of the world due to quota restrictions. In the current post-quota era, retailers will not have to source from as many countries. This will allow them to do more business with fewer vendors. The diagram below shows the “new” textile and apparel supply chain. Retailers have three major decisions to make when purchasing products. 1) The retailer can approach domestic cut and sew manufacturers, in which case they may or may not delegate where the fabric originates. 2) They could choose an overseas cut and sew manufacturer and, once again, decide whether to choose fabric makers or not. 3) They could go to a sourcing agent that provides full package services, where the agent handles the details of manufacturing. Retailers have increasingly approached more sourcing agents and overseas manufacturers, thus reducing the amount of products sourced in the U.S. explaining the downward trend of domestic manufacturing.



**Figure 25: Global U.S. Textile and Apparel Supply Chain Adapted from Cokins, G.**

source: Cokins, G. 2005

### **Identify Market Trends (Step Three)**

Both the bottom weight and bed/bath markets have realized two major trends over the last seven years. There was an increase in imports for both markets, as well as a decrease in domestic production in both markets. Manufacturers have increasingly moved to offshore facilities in order to cut costs. Offshore sourcing is just one of the major trends in these two markets. Five major trends are discussed. They were defined by Standard & Poor's Industry Surveys in 2004.

There are five common market trends that apply to both product categories:

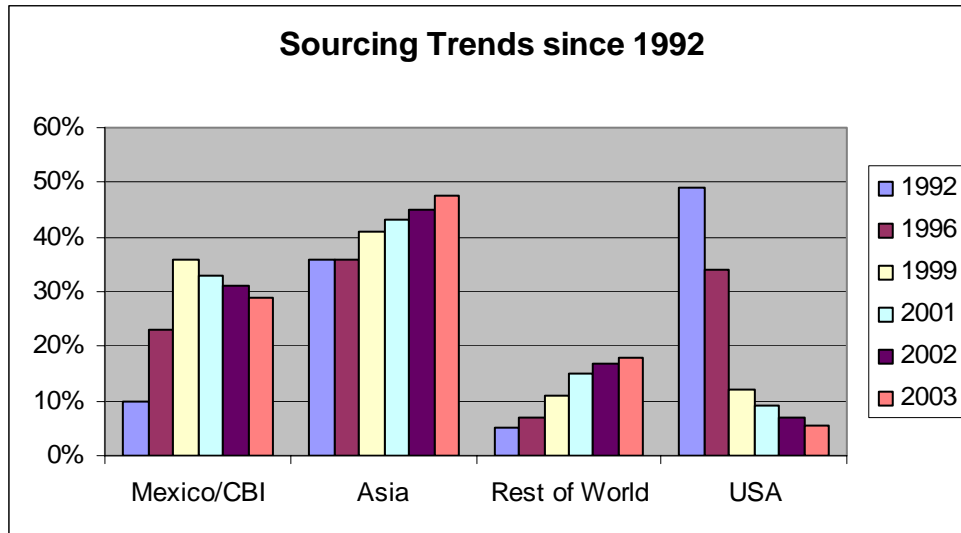
- offshore sourcing
- technology
- diversification (branding and private labels)
- different shopping trends
- aligning inventory with sales

Source: [www.netadvantage.standardandpoors.com](http://www.netadvantage.standardandpoors.com) (2005)

### ***Offshore Sourcing***

Offshore sourcing increased in both bed/bath and bottom weights product categories over the last seven years. Since 1992, retailers have shifted the regions that garments are sourced from. There are three major regions that apparel products are sourced from. They are the United States, Mexico/CBI, Asia, and the rest of the world. The United States and Asia were the dominant regions to source from in 1992. By 2003, Mexico/CBI and Asia were the major players. The United States is almost insignificant in comparison to the other regions. Figure 26 shows the sourcing trends since 1992 for the four major regions.





**Figure 26: Global Sourcing Trends**

Source: [www.doc.gov](http://www.doc.gov) (2004)

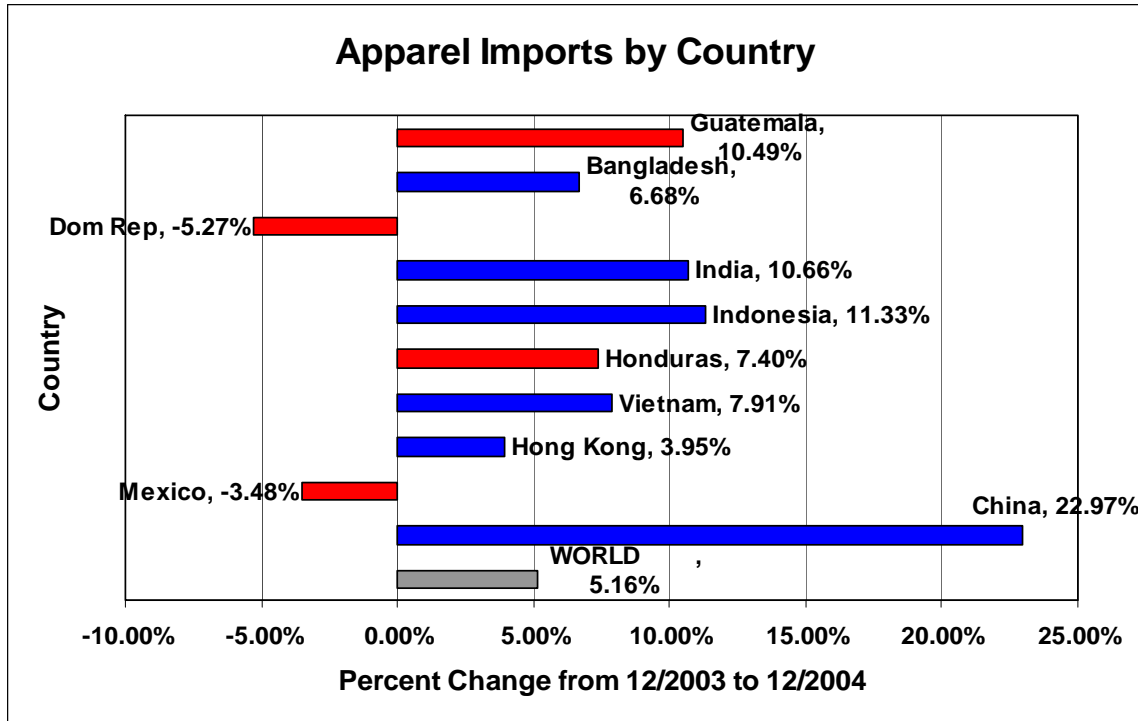
The top ten apparel trading partners with the United States are all in Asia or the Mexico/CBI regions. China alone accounted for approximately 13.9% of the apparel imports to the U.S. in 2004. Figure 27 shows the top ten apparel trading partners with their percent market share in the U.S. during 2004. Most of the trade balances out among the smaller countries ranging from three to six percent of the market. Mexico saw its market share increase after the NAFTA benefits built up the apparel industry south of the U.S. border. If non-apparel import categories are any indicator of what may happen once quotas are removed from all goods, it is likely China's market share will continue to increase in the U.S. (Source: [www.otexa.ita.doc.gov/](http://www.otexa.ita.doc.gov/))



**Figure 27: U.S. Apparel Market Share by Country**

Source: <http://www.otexa.ita.doc.gov/>

Not only have the Asian countries become the majority of sourcing, a few of the major countries have taken market share from smaller, less convenient locations. China, Indonesia, and Hong Kong grew a combined 29% in the U.S. market from 2003 to June 2004. During that same period, the Mexico/CBI regions lost approximately 10.2% of the U.S. apparel market. Figure 28 indicates the trends of the ten largest apparel exporting countries to the U.S. from 2003 to 2004.



**Figure 28: Percent Change in Apparel Imports with the Top Ten U.S. Apparel Trading Countries**

source: <http://www.otexa.ita.doc.gov/>

As sourcing trends progress in post-quota trade, retailers claim that consumers will see higher quality products for the same prices. Instead of passing the savings from lower sourcing costs, retailers state that they can source more of the products from high quality factories without having to worry about quota limitations.

### ***Technology***

Technology has been utilized by retailers in a number of ways. They have learned more about consumers, and have improved service for them. Point of Sale (POS) technology allows retailers to quickly track each purchase made in its stores. Systems track sales, update inventory numbers, as well as provide real time information with the vendors. Wal-Mart has capitalized on its POS data to push high

selling items, according to regional location, in-store location, and marketing strategies.

Apparel retailers have begun customizing more products for its customers. Customized production allows the retailer to increase the price of the product, while increasing the value of the product for the customer. This production is generally done domestically due to the need for a quick turnaround time. Customized products are an opportunity for domestic manufacturers to increase sales, as long as they have the capability to service the quick delivery necessary for these items.

### ***Diversification (Branding and Private Label Expansion)***

As major retailers begin to consolidate, branding appears to be utilized more and more to create a competitive advantage. Paul R. Charron, chairman and CEO of Liz Claiborne Inc. stated that, "The bigger are just going to get bigger and more sophisticated." (Charron, 2005) He is referring to the consolidation of Sears and Kmart. He also believes that retailers will separate themselves from the competition by creating exclusive partnerships with brands. (Charron, 2005) By partnering with some of the major brands, retailers own the part of the rights to those products and maintain the loyal consumers attached with them.

Another form of diversification is acquiring other companies that could potentially become a competitor. Apparel companies have realized that acquisitions can really improve their situation because, "they can also enable companies to combat pricing pressures by developing megabrands and maximizing operating efficiencies" (Driscoll and Wagle, 2004, pg. 5).

Private label expansion has evolved as retailers expand their own store labels on products. As retailers consolidate and private label programs expand, consumers will likely have more options of high quality products that are more price competitive than the major designer brands. The retailers feel that they can pass the value of products to the consumer instead of lowering the price of the goods in the stores. It is likely that a small price decrease will occur, but not significantly. The rest of the post-quota trade savings will go to the supplier and the retailer.

Manufacturers may purchase a license for a product if they already have the means to produce it. If the equipment, personnel, and know-how are already in place, then a manufacturer can use that as a way to increase revenues. One disadvantage of owning a private label is that the label must compete with other well-established national brands.

### ***New Shopping Trends***

Consumers have become more complex, in terms of their shopping patterns. Cross-shopping has evolved as mass retail chains, namely Wal-Mart and Target, have increased market share. Consumers are splitting their shopping between department or specialty stores with the low price mass chains in order to save money. Most consumers are loyal to certain retail channels for certain products. For example, customers generally shop at a particular store for apparel, electronics, linens & bedding, groceries, etc. Those same customers will also shop at a mass retail chain store in order to benefit the low cost for other products that may not require as much value to them.

Value has become more important to the consumer, although it is a somewhat subjective term. Value for consumers could mean quality, price, service, or a combination of the three. Consumers have realized that they can receive quality goods for a lower price. The value may affect the decision in regard to a convenience factor.

### ***Aligning Inventory with Sales***

Apparel retailers have steadily lowered inventory levels in an attempt to reduce markdowns in the highly competitive market. The retailers realize that by reducing inventory levels, they run a risk of increasing lost sales due to not having products in the stores for people. “Not having items customers want can translate into lost sales, which reduces revenues and profits and disappoints customers” (Asaeda, 2004, pg. 4).

The shorter cycles have forced the entire supply chain to change. As the retailers lower inventory levels, manufacturers receive shorter orders increasing the complexity of their operations. To meet the demand of the retailers, “manufacturers have had to shorten design, development, production, and distribution cycles” (Driscoll and Wagle, 2004, pg. 1). Since the retailers have increased offshore sourcing, it further complicates the situation because of lengthened supply chains. The longer supply chain inherently has more inventory tied up, providing a competitive advantage for manufacturers with close proximity to the U.S. market.

### **Identify Sample Countries and Companies (Step Four)**

The sample companies were narrowed using the process described in Chapter III Methodology. The companies were arranged in tiers to indicate the

importance of particular contacts. The company selection started with the tier one sample and other tiers were used to replace those companies that could not be interviewed. The sample consists of twenty companies representing all segments of the supply chain, from manufacturing to retail.

### **Countries**

Several countries have specific core competencies that add value to certain products. The countries that own the market share for bottom weight products are not necessarily the same countries that dominate bed/bath production. As described in the Chapter III Methodology, a thorough analysis was completed of the major producing countries for each product market. The list below shows the countries, not including the U.S., that were validated as leaders in their respective markets.

#### Bottom Weight Leaders

- Mexico
- Dominican Republic
- Hong Kong
- Honduras
- Guatemala

#### Bed/bath Leaders

- Pakistan
- China
- Turkey
- India
- Brazil

It is interesting to note that the bottom weight leaders are almost all located in Latin or Central America, where there is no raw material supply. Central and Latin America lack an adequate supply of cotton, yarn, and fabric from manufacturing in those locations. On the other hand, the bed/bath countries that emerged as leaders

all have a vast supply of raw materials, including cotton. There appears to be a difference in the apparel manufacturing aspect of the supply chain compared with that of the bed/bath products.

### ***Detailed Trade Summaries by Country***

Tables 9-18 provide a description of each sample country with details of each regarding international trade. Companies often compare potential countries to source from, and certain factors make one country more appealing to source products or manufacture products from over another. Some of the major areas that play a role in sourcing decisions are listed below:

- General trade statistics
  - GDP
  - Imports and exports with the U.S.
  - Population – availability of labor
- Trade benefits
  - Raw material availability
  - Proximity to U.S. market
  - Free trade zones
- Trade barriers
  - Impeding bureaucracies
  - Poor infrastructure
  - High tax and/or tariff rates
- International trade factors
  - Currency exchange rates
  - Compliance
  - Intellectual Property rights
  - Federal subsidies
  - Employee benefit plans
- Trade agreements

The following country tables contain information compiled from Stat-USA's Country Commercial Guides and the International Labor Organization. In order to remain consistent, the country commercial guides for 2003 and 2004 were



researched. The data in the tables represent 2003 information, unless otherwise noted.

The International Labor Organization maintains a statistics database for research purposes. The hourly wages were collected from [www.laborsta.ilo.org](http://www.laborsta.ilo.org) online website, in order to compare wages in a consistent manner. Percentages included for benefits plans were gathered from Stat-USA's Country Commercial Guides if they were provided.

**Table 9: Trade Summary - Brazil**

SECTION	TRADE IMPACTING DATA
General	Population – 180 million GDP – US\$ 600 B U.S. Exports to Brazil – US\$ 11.5 B U.S. Imports from Brazil – US\$ 20.3 B
Trade benefits	<ul style="list-style-type: none"> <li>- Brazil is rich in agricultural, mineral, and industrial resources. There is a large supply of cotton available for textile production.</li> <li>- Foreign direct investment from the U.S. totaled US\$ 17 B in 2004.</li> <li>- There are market opportunities for foreign investment because of Brazil’s drive to further industrialize their country. They also have plans to improve energy and transportation in an effort to support its export-led growth.</li> <li>- The government maintains stable inflation through high federal discount rates.</li> <li>- The Manaus Free Trade Zone is the most developed of the eight FTZ’s in Brazil.</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- The Brazilian business environment is very complex. In order to conduct business, one would have to have a detailed understanding of the local environment. There are explicit, as well as hidden costs of doing business referred to as the “Custo Brasil.”</li> <li>- Brazil imposes high tariffs on U.S. companies and the customs system is difficult to deal with.</li> <li>- There are heavy and unpredictable taxes.</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (real) Strong currency coupled with Chinese economic slowdown could be detrimental to investors. Currently it is weak, encouraging exports.</li> <li>• Compliance – Environmental degradation is a major problem.</li> <li>• Intellectual Property – The legal system is often overloaded, and the country is on the Special 301 Priority Watch List regarding IP theft.</li> <li>• Federal Subsidies – mainly tax, tariff, and financing incentives to encourage production for export and to promote the use of Brazilian inputs.</li> <li>• Employee Benefits – Average total earnings per hour: \$2.15</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- WTO member</li> <li>- Mercosul</li> <li>- The Southern Common Market</li> </ul>

**Table 10: Trade Summary – China**

SECTION	TRADE IMPACTING DATA
General	Population – 1.3 Billion GDP – US\$ 1.65 T U.S. Exports to China – US\$ 31.5 B U.S. Imports from China – US\$ 179.2 B
Trade benefits	<ul style="list-style-type: none"> <li>- China's economy grew 9.5% in 2004.</li> <li>- Retail sales rose 14% in 2004.</li> <li>- China received US\$ 60.6 B in foreign investment in 2004.</li> <li>- Export-driven infrastructure, including adequate roads and ports.</li> <li>- Low labor costs</li> <li>- Huge labor force available</li> <li>- A non-market economy allows for low cost benefits of manufactured goods</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- China often lacks predictability in its business environment. China often operates under an inconsistent and unclear body of laws and regulations.</li> <li>- China's government tends to protect its local, state-owned businesses from imports while encouraging exports.</li> <li>- The Chinese is a planned economy, and the government owns all of the banks. This allows the government to direct loans given to companies.</li> <li>- Distance – it takes about 18 days on a boat to receive goods from China.</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (yuan) tightly controlled at 8.227 yuan to the USD, allowing China to build a growing trade surplus with many of its trade partners, including the U.S.</li> <li>• Compliance – The legal and regulatory system is described as opaque, inconsistent, and arbitrary.</li> <li>• Intellectual Property – The Chinese government is not aggressively protecting the rights.</li> <li>• Federal Subsidies – Government provides support for many industries in an attempt to fuel the economic and export growth.</li> <li>• Employee Benefits – Average total earnings per hour: \$0.69 (benefits = 8%)</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- WTO member</li> </ul>

**Table 11: Trade Summary – Dominican Republic**

SECTION	TRADE IMPACTING DATA
General	Population – 180 million GDP – US\$ 20+ B U.S. Exports to the D.R. – US\$ 11.5 B U.S. Imports from the D.R. – US\$ 20.3 B
Trade benefits	<ul style="list-style-type: none"> <li>- Dominicans often rely on networking and close personal relationships while conducting business. Therefore, it is a benefit to use local agents or local operations to make and sustain those relationships.</li> <li>- Close proximity to the United States.</li> <li>- Apparel exports represent about 50% of the Free Trade Zone (FTZ) products.</li> <li>- Advanced telecommunications network.</li> <li>- Well-developed road network and modern port facilities.</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Corruption is a concern among some investors.</li> <li>- Manufacturing declined 2.7% in 2003.</li> <li>- There was a 43% inflation rate in 2003 primarily because of increased oil and electricity costs (and the currency devaluation).</li> <li>- Periodic power shortages and high cost back-up generator facilities slow industrial expansion (In 2004, the government got rid of electricity subsidies raising electricity costs).</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (pesos) The Dominican moved to a unified exchange rate in 2003. It was previously divided between the private and public sector. There was a major currency devaluation in 2003.</li> <li>• Compliance</li> <li>• Intellectual Property – the government has increased policies directed at improving IP rights protection. Some industry representatives question their enforcement. Recently upgrade from Priority Watch List to Watch List.</li> <li>• Federal Subsidies – There are no aggressive plans to support export programs except for in the free trade zones.</li> <li>• Employee Benefits – Average total earnings per hour: \$0.45</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- The Dominican Republic is included in the proposed CAFTA-DR, allowing free trade within five Central American countries and the United States.</li> </ul>

**Table 12: Trade Summary – Guatemala**

SECTION	TRADE IMPACTING DATA
General	Population – 11.9 million GDP – US\$ 24.6 B U.S. Exports to Guatemala – US\$ 2.5 B U.S. Imports from Guatemala – US\$ .77 B
Trade benefits	<ul style="list-style-type: none"> <li>- The government makes it is easy to form joint ventures or purchase local companies.</li> <li>- A foreign investment law was passed in 1998 in order to streamline and promote foreign investment.</li> <li>- Tariffs range between 0-15%.</li> <li>- Manufacturing or assembly operations that import more than half of its components and then export finished products (Maquiladoras) receive duty and tax exemptions.</li> <li>- Largest population in Central America, accounting for 1/3 of the region’s GDP.</li> <li>- Close proximity to the U.S.</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Time consuming administrative procedures for foreign companies</li> <li>- High crime rate</li> <li>- Corruption is common</li> <li>- Highly capable technical and managerial workers are in short supply</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (quetzales)</li> <li>• Compliance – There is not a strong legislative process of writing and enforcing regulations.</li> <li>• Intellectual Property – Compliant with WTO rules, but prosecution of violators is rare.</li> <li>• Federal Subsidies – Companies receive exemptions for duties and value-added taxes for using the “maquiladoras” process. Textile assembly operations are common in the Free Trade Zones and benefit from the maquiladora laws.</li> <li>• Employee Benefits – Average total earnings per hour: \$1.46 (benefits can be as high as 60% of that) Minimum wage is \$.72 per hour, and skilled jobs pay as much as \$3.13 per hour.</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- Caribbean Basin Initiative (CBI)</li> <li>- Caribbean Basin Trade Partnership Act (CBTPA)</li> <li>- Generalized System of Preferences (GSP)</li> <li>- Central American Free Trade Agreement (Proposed CAFTA-DR)</li> </ul>

**Table 13: Trade Summary – Honduras**

SECTION	TRADE IMPACTING DATA
General	Population – 6.8 million GDP – US\$ 6.9 B U.S. Exports to Honduras– US\$ 1.38 B U.S. Imports from Honduras – US\$ 607.6 M
Trade benefits	<ul style="list-style-type: none"> <li>- Third largest exporter of textiles and apparel to the U.S. (behind Mexico and China)</li> <li>- The Honduran government is open to foreign direct investment</li> <li>- Close proximity to the U.S.</li> <li>- Puerto Cortes is the largest deep water port in Central America, and can ship goods to the major southern U.S. ports in ~48 hours. Honduras has ports on the Atlantic and Pacific Oceans.</li> <li>- Adequate network of roads that connect with the rest of Central America.</li> <li>- Free Trade Zones (FTZ's) are utilized throughout the country. They allow companies to be exempt from paying import duties on goods and capital equipment, charges, surcharges, selective consumption taxes, and sales taxes. Companies have taken advantage of these areas with assembly for export factories called “maquilas.”</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Corruption</li> <li>- Drug trafficking</li> <li>- Crime</li> <li>- Low percentage of the population is educated</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (lempira) floats freely with the market and remains relatively strong against the USD.</li> <li>• Compliance – regulatory requirements are time consuming and costly</li> <li>• Intellectual Property – compliant with the Trade Related Aspects of Intellectual Property Rights (TRIPS) including trademarks and patents.</li> <li>• Federal Subsidies -</li> <li>• Employee Benefits – Average total earnings per hour: \$1.34 (~42% = overhead)</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- Bi-lateral trade agreement with the U.S. that is considered very politically friendly</li> <li>- Included in the proposed CAFTA deal</li> <li>- Central American Common Market (CACM)</li> </ul>

**Table 14: Trade Summary – Hong Kong**

SECTION	TRADE IMPACTING DATA
General	Population – 6.81 million GDP – US\$ 158.3 B U.S. Exports to Hong Kong– US\$ 13.5 B U.S. Imports from Hong Kong – US\$ 8.9 B
Trade benefits	<ul style="list-style-type: none"> <li>- Free market philosophy</li> <li>- Close proximity to Chinese mainland manufacturing</li> <li>- Often used as a trading hub for East Asia</li> <li>- There are no trade barriers</li> <li>- Well established laws</li> <li>- Low, predictable taxes</li> <li>- Well-developed infrastructure including ports, rail, airports, and roads</li> <li>- Most business people in Hong Kong speak English (no language barrier)</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Pollution is high due to the neighboring Guandong Province of China.</li> <li>- Distance from the U.S.</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (Hong Kong dollars) is tightly controlled at 7.8 HKD to 1 USD</li> <li>• Compliance – very clear regulations. Spent US\$ 841.8 M on environmental protection in 2003.</li> <li>• Intellectual Property -</li> <li>• Federal Subsidies -</li> <li>• Employee Benefits – Average total earnings per hour: \$5.54 (<a href="http://www.bls.gov">www.bls.gov</a>)</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- WTO member</li> <li>- Closer Economic Partnership Arrangement (CEPA) with China</li> <li>- Asia Pacific Economic Cooperation Forum (APEC)</li> </ul>

**Table 15: Trade Summary - India**

SECTION	TRADE IMPACTING DATA
General	Population – 1.03 billion GDP – US\$ 603 B U.S. Exports to India – US\$ 4.7 B U.S. Imports from India – US\$ 12.9 B
Trade benefits	<ul style="list-style-type: none"> <li>- Most business people speak English</li> <li>- Infrastructure investments have started to improve outdated roads and ports.</li> <li>- A combination of low labor costs and beneficial tax programs allow for an investor to create an ideal production base for exporting.</li> <li>- Large amount of labor availability</li> <li>- Considered one of the top sourcing alternatives to China</li> <li>- India is the world’s largest democracy</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Poor infrastructure: roads, ports, and telecommunication</li> <li>- Lengthy bureaucracy process</li> <li>- Corruption</li> <li>- Regulatory and foreign investment are tightly controlled</li> <li>- Adequate management personnel are difficult to locate</li> <li>- Foreign direct investment is limited in some industries</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (rupees)</li> <li>• Compliance – Polluting industrial projects must be at least 25 km away from the Standard Urban Area limits of cities with &gt;1 million people. Other regulations vary from one state to another (no centralized government regulations). India is compliant with ILO standards regarding labor and the workplace.</li> <li>• Intellectual Property – There are effective copyright and trademark laws, but enforcement is not common.</li> <li>• Federal Subsidies -</li> <li>• Employee Benefits – Average total earnings per hour: \$0.27 (pensions are controlled by the government) Industrial wages range from \$72 - \$150 per month.</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- WTO member</li> <li>- Generalized System of Preferences (GSP)</li> <li>- Global System of Trade Preferences (GSTP)</li> <li>- SAARC Preferential Trading Agreement (SAPTA)</li> </ul>



**Table 16: Trade Summary – Mexico**

SECTION	TRADE IMPACTING DATA
General	Population – 105 million GDP – US\$ 615 B U.S. Exports to Mexico – US\$ 107 B U.S. Imports from Mexico – US\$ 143 B
Trade benefits	<ul style="list-style-type: none"> <li>- Borders the U.S. facilitating the maquiladora industry</li> <li>- 88% of its exports are to the U.S. market</li> <li>- Adequate infrastructure: roads and ports</li> <li>- Free Trade Zones (FTZ's) and semi-free trade zones: maquiladora and PITEX</li> <li>- Sectoral Promotion Programs (PROSEC) allow for reduction or elimination of import duties for specific component parts that make a final product. (textiles and apparel are included)</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Corruption</li> <li>- Need to hire local counsel when starting businesses. Relationships are key to forming partnerships and joint ventures.</li> <li>- Productivity is lacking and there is low availability of effective managers.</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (pesos)</li> <li>• Compliance – Mexico works closely with the U.S. to control environmental issues, primarily near the shared border. (Usually highly industrialized areas)</li> <li>• Intellectual Property – solid laws in place, but not a very aggressive enforcement and prosecution process. Placed on the U.S. Special 301 watch list for countries with inadequate enforcement of IPR.</li> <li>• Federal Subsidies</li> <li>• Employee Benefits – Average total earnings per hour: \$4.75 (benefits = ~35% of salary)</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- North American Free Trade Agreement (NAFTA)</li> <li>- WTO</li> </ul>

**Table 17: Trade Summary – Pakistan**

SECTION	TRADE IMPACTING DATA
General	Population – 150 million GDP – US\$ 63.1 B U.S. Exports to Pakistan – US\$ 736 M U.S. Imports from Pakistan – US\$ 2.1 B
Trade benefits	<ul style="list-style-type: none"> <li>- Low cost labor</li> <li>- Pakistan is the world’s fourth largest producer and consumer of cotton, encouraging foreign investment.</li> <li>- Cotton textile production is the most important industry according to Pakistan officials.</li> <li>- Pakistan underwent a massive Balancing, Modernization, and Replacement (BMR) plan in 2002 in an effort to make its textile industry more high tech and competitive.</li> <li>- Adequate ports with plans for two new facilities.</li> <li>- Foreign trade zones – Export Processing Zones (EPZ), Export-Oriented Units (EOU), and Special Industrial Zones (SIZ) programs.</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Political instability and political violence are major issues, along with close proximity to Afghanistan. (terrorism is a factor)</li> <li>- Poor roads (90% of the goods are transported in trucks)</li> <li>- Corruption – especially with international contracts and within the taxation system</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (rupees) float freely on the market and has fallen against the US \$.</li> <li>• Compliance – The Pakistan Environmental Protection Agency (PEPA) was formed in 1997 to provide a legal framework to address the prevention and control of pollution. The government struggles to review, assess, and monitor the environmental standards because of the technical capacity needed to do so.</li> <li>• Intellectual Property – Trademarks, patents, and designs are included in the laws, but rules to enforce IP rights are incomplete.</li> <li>• Federal Subsidies – Pakistan encourages exports by supplying rebates for import duties, sales taxes, and income taxes.</li> <li>• Employee Benefits – Average total earnings per hour: \$0.43. Minimum wage is \$0.22 per hour for unskilled workers.</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- WTO member</li> <li>- South Asian Association for Regional Cooperation (SAARC) includes India, Bangladesh, Sri Lanka, Nepal, Bhutan, and the Maldives.</li> </ul>

**Table 18: Trade Summary - Turkey**

SECTION	TRADE IMPACTING DATA
General	Population – 68 million GDP – US\$ 238.9 B U.S. Exports to Turkey – US\$ 3.42 M U.S. Imports from Turkey – US\$ 3.74 M
Trade benefits	<ul style="list-style-type: none"> <li>- Labor force is known for being hardworking, productive, and dependable.</li> <li>- Foreign Trade Zones (may be less beneficial due to recent legislation)</li> <li>- Abundance of low-skilled and semi-skilled workers</li> <li>- The textile industry is the largest manufacturing industry in Turkey, and the factories are generally modern.</li> <li>- Turkey has a number of large modern ports along its extensive 8,300 km coastline.</li> <li>- Turkey maintains the second largest army in NATO.</li> <li>- Turkey may offer a cost effective way to enter the European market, through its European Customs Union membership.</li> </ul>
Trade barriers	<ul style="list-style-type: none"> <li>- Bureaucratic red tape limits foreign and domestic companies</li> <li>- Political violence and terrorism</li> <li>- Shortage of highly skilled workers for high tech operations</li> <li>- The railroad system is very old and needs renovation</li> </ul>
Factors affecting disparities	<ul style="list-style-type: none"> <li>• Currency – (lira)</li> <li>• Compliance – labor, health, and safety laws do not generally deter investors. All factories must complete the procedure of submitting an Environmental Impact Assessment to the Ministry of the Environment and Forestry before they will be approved to begin construction.</li> <li>• Intellectual Property – legal structure exists and provides clear interpretation of copyright and patent protection, but effectiveness is limited by lack of resources.</li> <li>• Federal Subsidies -</li> <li>• Employee Benefits – Average total earnings per hour: \$3.45</li> </ul>
Trade Agreements	<ul style="list-style-type: none"> <li>- Bilateral investment and tax treaties with the U.S.</li> <li>- European Customs Union</li> </ul>

### **Analyze Phase I (Step Five)**

Based on the results of Phase I, a survey instrument was developed as shown in Appendix B. The instrument was used to guide the interviews in Phase II of the study. The information interviews were conducted in order to gather primary data to support or reject the secondary data.

### **Section Three of the Survey Instrument**

1. How do currency exchange rates affect your business?
2. Do exchange rates impact your decisions while investing overseas?
3. How does environmental and social compliance impact your company?
4. Has your company been impacted by IP theft?
  - a. Do you feel like it is a problem overseas?
5. What country is most favorable for you to include in your supply chain?
  - a. Why?
6. With your products, why would it benefit you to go overseas?
7. Do government laws limit your success in certain regions of the world?
8. What are the benefits of using Asia or Latin America in your supply chain model?
9. Which of the following countries have you been involved with, in terms of the product markets heading the column?

Bed/Bath		Bottom Weights	
Pakistan		Mexico	
China		D.R.	
Turkey		Hong Kong	
India		Honduras	
Brazil		Guatemala	

10. Provide a weight score for each trade factor. The total weight should total 1.0, or 100%. For instance, if all factors are to be considered equal, then each factor would receive a score of .2, or 20% of the total.

Trade Factor	Weight
Currency Exchange Rates	
Environmental Regulations	
Federal Subsidies	
Employee Benefits Plans	
Intellectual Property Theft	

## PHASE II RESULTS

### IN-DEPTH INTERVIEWS

As a result of Phase I research, sample companies were identified and interviews were conducted. A data collection table was developed as shown in Table 19. The data collection table summarized the comments made by the executives. One data collection table was filled out for each company, regardless of how many respondents were included in the interview. For instance, a company that allowed the research team to interview 3 executives only had one data table filled out representing that company.

**Table 19: Data Collection Table for Interviews**

<i>SECTION</i>	<i>EXECUTIVE'S COMMENTS REGARDING THE QUESTIONS</i>
Currency Exchange Rates	<u>Effect on business -</u>
Environmental and Social Compliance	<u>Effect on company -</u>
Intellectual Property	<u>Impact -</u>
Government Interaction	<u>Impact -</u>
Employee Benefits	
Countries	<u>Most favorable to include in the supply chain -</u> <u>Post-quota sourcing –</u>
Regions	<u>Benefits of going overseas –</u> <u>Asia or Latin America –</u>
Bed/bath	<u>Countries that you manufacture or source from -</u>
Bottom weight	<u>Countries that you manufacture or source from -</u>

After the interviews were completed, several of the defined trade factors were altered due to the information available. As indicated in Table 19, several key sections emerged from the in-depth interviews. Brief descriptions of the sections, along with any alterations from Phase I, are described in the following paragraphs.

Currency exchange rates remained as described in the Phase I results. They are determined by a country's government, and affect the value of a currency against other currencies when dealing with international trade. Market economies

generally allow the value of their currency to float freely with the market, while other governments choose to tightly control the value of the currency against other currencies to stabilize economic situations or gain a competitive advantage while exporting goods.

Environmental and social compliance are often considered part of the same process of maintaining ethical business practices. While conducting interviews, it was recognized that the executives generally refer to “compliance,” meaning all of the regulations that must be maintained to ensure that all vendors are suitable to conduct business with, no matter where they may be located. Two major sections of compliance are social and environmental. Social compliance relates to the working conditions of the people in the factories. Environmental compliance often refers to the standards imposed by governments regarding water treatment, air emissions, and waste control.

Intellectual property (IP) remained as described in Phase I of the research. IP is a product, process, or technology that has a patent or legal right associated with it. Every person interviewed understood the concept of IP rights as it relates to this research.

Federal subsidies were initially investigated for Phase I of the research. During the interview process, companies began referring to other forms of government interaction. Most of the companies had no quantitative data to support the findings from the Phase I results describing direct subsidies, interest-free and concessional loans, tax write-offs, accelerated depreciation allowances, and reduced social security contributions. Therefore, most of the dialogue focused on

government interaction in two ways: 1) political and 2) economical. The executives believed that government interaction had an effect on their company's success. The companies felt as though the government took a role in international trade for political reasons, economical reasons, or a combination of both.

Employee benefits plans were researched in Phase I and found to be a disadvantage for U.S. companies. During the interviews, no quantitative data was provided to support the level of disparity indicated in the secondary research. The secondary data compared various countries with the percent of total compensation put into benefits plans. After conducting the research regarding individual countries in the two markets, hourly wages were determined. The difference in the amount of benefits paid per hour is still considerably less significant than the actual difference in wages. Low wages, including benefits plans, were repeatedly cited as a reason to do business overseas, but there was a lack of in-depth knowledge regarding the exact comparisons.

### **Analysis of Interviews**

The data were compared in two different ways:

- Companies within each market = two subgroups; bottom weight versus bed/bath
- Companies within their segment of the supply chain = four subgroups; U.S. manufacturer, U.S. & Offshore manufacturer, U.S. retailer, and Other (including a global sourcing agent, a predominantly offshore apparel manufacturer, and a direct supplier of apparel manufacturers all over the world).



The first analysis draws comparisons and contrasts within each market studied: bottom weights and bed/bath. All segments of the supply chain were included from manufacturer through retailer, so that all interpretations of the trade factors were captured regarding each specific market.

The second part of the analysis separates the companies according to their segment in the supply chain. U.S./U.S. manufacturers, U.S./U.S. & Offshore manufacturers, U.S. retailers, and “Other” were grouped apart allowing emerging themes to surface. The fourth group of “other” companies was included in the data, although they were not part of the initial sample. Those three companies are considered industry leaders in their respective businesses, and were included as extras in the study.

The summary tables from the interview data collection are included in Appendix E. They describe the remarks gathered from the interviews. Each table is supported with specific data from the interviews. Appendix E-1 provides the most general summarization including all companies within the study. Appendices E-2 and E-3 separate the bottom weight and bed/bath markets, respectively. The second analysis regarding the supply chain segments begins with Appendix E-4. Following the summary tables, contingency tables were set up in order to visually depict the frequency of the responses.

### **Contingency Tables**

After analyzing the results of the two markets, several conclusions were reached. Each of the trade factors were placed into contingency tables with the responses listed vertically on the left and the two markets listed horizontally across

the top. Contingency tables are valuable tools when conducting frequency analysis. The tables facilitate conclusions based on relationships between two variables. The executive's responses were taken a step further by correlating the responses with dialogue from the in-depth interviews, as well as the secondary data collected during Phase I of the research. The complete results table from the interviews can be found in Appendix E-7.

### ***Currency Exchange Rates***

#### ***Analysis One – Market***

Table 20 depicts the frequency distribution of the responses related to currency exchange rates. Currency exchange rates vary from country to country as governments decide what degree it will allow its currency to fluctuate against global markets. According to the bottom weight and bed/bath companies, 80% responded that currency exchange rates had a small amount or no effect on their companies. The majority of companies said it did not affect them because they use US dollars in relatively all of their contracts. The secondary data indicated that all Asian currencies, excluding Indonesia, were devalued creating a distinct export advantage for those countries. Of the 18 companies interviewed, 14 of them conduct business in China, which could lead to lower cost of goods sold due to beneficial exchange rates.

**Table 20: Analysis One – Currency Exchange Rates**

<b>1) Currency Exchange Rates</b>			
Q. Do currency exchange rates impact your business?			
	<b>Bottom weight</b>	<b>Bed/ Bath</b>	<b>Totals</b>
none	4	2	6
small amount	4	2	6
large amount	0	1	1
no answer	1	1	2
Totals	9	6	15

It is important to note that the bed/bath companies felt that the currency risk is at the vendor level. If a company has overseas operations, raw materials prices may vary changing the cost of goods sold. The one bed/bath company that felt impact to a large degree gets products from Europe and the strength of the Euro has made it more difficult to import products and maintain profit levels. The executive said that it was not as big of an issue in Asia.

***Analysis Two – Supply Chain Segment***

Table 21 depicts the results according to supply chain segment within the two markets. After analyzing the comments from the interviews, most of the impact from exchange rates occurs to the offshore companies at the vendor level. U.S. manufacturers did not realize much of an impact due to exchange rates as it relates to their business. None of the U.S. & Offshore manufacturers stated that their company was impacted to a large degree by exchange rates.

**Table 21: Analysis Two – Currency Exchange Rates**

<b>1) Currency Exchange Rates</b>					
Q. Do currency exchange rates impact your business?					
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>	
none	2	2	2	<b>6</b>	<b>80.0%</b>
small amount	1	3	2	<b>6</b>	
large amount	0	0	1	1	
no answer	0	1	1	2	
Totals	3	6	6	15	

One executive from the U.S. & Offshore bottom weight manufacturers group clarified by stating that purchase prices for the products may be impacted by fluctuations in exchange rates, and in turn may affect their cost of goods sold. Once again, most of the companies try to conduct all business in U.S. dollars. The U.S. manufacturer that felt a small impact from exchange rates referred to the strength of the Euro from 2003 to 2004. That executive once contemplated shipping goods through one of their European locations in order to capitalize on a beneficial exchange rate, but warned against chasing currency rates. He stated that it was a gamble and not a smart way to conduct business. The retailer that was impacted to a larger degree also referred to the strength of the Euro making it difficult to source products from certain countries in Europe.

### **Compliance**

Compliance is an umbrella term for regulatory practices that are generally monitored for the benefit of workers and the environment, and may vary from country to country. Compliance includes an environmental aspect as well as a social aspect. According to the executive respondents, compliance is an increasingly important issue because globalization allows companies to compete

anywhere in the world. Some companies struggle to implement fully standard practices as they locate in developing countries, where much of the compliance focus is put.

### ***Environmental***

Environmental compliance involves government mandated processes and procedures that help ensure proper care is taken of our natural habitat. These regulations aim to reduce the amount of damage inflicted on the environment by manufacturing and other human activities. There is a balance, however, because a certain level of degradation is allowed because there are many industries that are necessary to sustain our economies and maintain our way of life. These issues are particularly important in developing countries that have just begun building industries to improve their economies. As industry grows, the countries have become accustomed to the presence of the regulations. The WTO includes certain compliance literature in the agreements signed by its members. It is difficult to regulate each country, in terms of environmental compliance, but the issue has been addressed more and more by developing countries. Some of the countries are forcing manufacturers to complete an environmental impact assessment before breaking ground on new factories. (Refer to the Country Trade Summaries in Tables 9-18 of Chapter IV, Phase I Results.

## Analysis One – Market

**Table 22: Analysis One – Environmental Compliance**

<b>2) Environmental Compliance</b>			
Q. Do environmental regulations impact your company?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
yes	7	5	12
no	1	0	1
no answer	1	1	2
Totals	9	6	15

Of the companies interviewed, the vast majority of the respondents felt that environmental compliance was important to them. Only one retailer felt that it was not its responsibility to check the environmental compliance at its vendor locations. The U.S. has continued to set the standard for environmental compliance and Porter believed that is a competitive advantage because it forces the domestic industry to focus on innovation faster than its foreign counterparts, therefore improving long term success of the industry. Companies that locate in areas that have less-stringent environmental standards may benefit in the short run, but most executives stated that it is never good to do business with someone that you do not have a good relationship with and that you know conducts business in an ethical manner.

## Analysis Two – Supply Chain Segment

**Table 23: Analysis Two – Environmental Compliance**

<b>2) Environmental Compliance</b>				
Q. Do environmental regulations impact your company?				
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>
yes	3	5	4	12
no	0	0	1	1
no answer	0	1	1	2
Totals	3	6	6	15

There are no significant differences between the segments of the supply chain. All but one of the companies, a U.S. department store retailer, felt that environmental compliance impacted them. The companies either complied with the environmental standards at their locations, or they audited supplier locations to ensure proper standards were included in its processes and procedures.

### **Social**

Social compliance refers to the factors often defined in retailer's code of conduct for vendors. A few major companies were impacted by bad publicity involving improper working conditions for its employees overseas, primarily in developing countries. The code of conduct usually includes a restriction on hours worked per week, wage minimums and overtime pay, age requirements, and safety. The retailers are the main drivers of the audit process, but almost every company in the supply chain felt as though it was important to understand and comply with. Several executives that have facilities in China actually stated that, in their experience, the state-owned facilities are in the poorest shape. According to the

executives, the foreign-owned, or joint venture facilities are typically much more in compliance than their counterparts.

**Analysis One – Market**

**Table 24: Analysis One – Social Compliance**

<b>3) Social Compliance</b>			
Q. Does social compliance impact your company?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
yes	8	5	13
no	0	0	0
no answer	1	1	2
<b>Totals</b>	<b>9</b>	<b>6</b>	<b>15</b>

Table 24 indicates that every company that responded to the social compliance question felt that it was important and that their companies followed necessary procedures. An executive from a company in the Other category primarily owns offshore apparel facilities, stated that Asian factories have a major disadvantage compared to American factories. He was referring to the maximum 60 hour work week enforced at offshore facilities. For example, a vast majority of the workers in Chinese facilities come to work from rural farm areas to work for just two or three years. The workers, mainly young women, save the majority of the earnings and return to the village in order to start their own lives. During the two or three years at the factory, the workers want to work as much as possible. Most of the workers live in dormitories on the grounds of the factory. By limiting the workers to only 60 hours per week, the compliance rules hinder that worker’s ability to maximize their time in the factory.



The executive stated that similar regulations are not enforced in American factories, where workers can choose to work more than 60 hours per week. He said that it was an unfair disadvantage that American factories have over factories in other countries. Perhaps a larger issue for these Chinese factory owners is not the tightly regulated hours per week, but the 30% turnover each new year. During Chinese New Year, the vast majority of the factory workers return home to see their families. Three company executives with Asian manufacturing stated that most factories can assume around 30% of the workers will not return, corresponding to the planned two to three year work period.

American companies, too, can benefit from knowing that their workforce is much more stable than their competitors in Asia. With high turnover, the offshore companies have to spend more time and resources training new associates, recruiting capable people, and scheduling around the stringent 60 hour work week. American companies have the ability to schedule associates as needed, and labor turnover in manufacturing averaged just under 3% from 2001 and 2004. (Source: [www.bls.gov](http://www.bls.gov), 2005)

Companies in developing countries can expect at least one compliance audit per year from each major retailer, at a cost of around \$2,000 per visit. That does not include visits from sourcing agents, or other intermediaries. If a Chinese fabric weaving plant ships to a cut and sew manufacturer, the weaving plant should generally expect audits from both the cut and sew manufacturer (direct customer) and the retailer (final customer) that ultimately receives the goods. Compliance audits add costs for offshore manufacturers in developing countries, but most

companies believed that is a necessity to ensure industrialization takes place in an ethical manner.

**Analysis Two – Supply Chain Segment**

**Table 25: Analysis Two – Social Compliance**

<b>3) Social Compliance</b>				
Q. Does social compliance impact your company?				
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>
yes	3	5	5	13
no	0	0	0	0
no answer	0	1	1	2
<b>Totals</b>	<b>3</b>	<b>6</b>	<b>6</b>	<b>15</b>

Every company, including the retailer that did not audit environmental compliance felt that social compliance was important. The executives stated that it was a good thing for the developing countries because it forced them to treat the workers fairly. Again, the retailers are the main drivers for compliance in the developing countries.

**Intellectual Property Rights**

Intellectual Property (IP) rights became more of an issue as companies began moving to offshore locations. Developing countries have not yet reached the level of enforcement that U.S. companies have grown accustomed to.

**Analysis One – Market**

Table 26 displays the results from the first analysis separating responses by market. None of the bed/bath executives felt that they had been impacted to a large degree by Intellectual Property theft. One of those executives stated that it was mainly due to the nature of most bed/bath products. He stated that his company felt

that it was not worth putting more resources towards. Three of the bottom weight companies felt that they had been impacted by IP theft to a large degree. Two of those companies had cases pending in the office of the International Trade Commissioner. This indicated that apparel products have a tendency to be copied more than bed/bath products.

**Table 26: Analysis One – Intellectual Property Rights**

<b>4) Intellectual Property Rights</b>			
Q. To what extent has your company been impacted by IP theft?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
none	4	4	8
small amount	2	2	4
large amount	<b>3</b>	0	3
no answer	0	0	0
<b>Totals</b>	<b>9</b>	<b>6</b>	<b>15</b>

**80.0%**

***Analysis Two – Supply Chain Segment***

After analyzing the results of IP theft by supply chain segment, two of the U.S. & Offshore companies were impacted to a large degree. One of those manufacturers explained that the majority of IP theft occurs with branded merchandise. The two U.S. manufacturers were impacted to a lesser degree because their products were converted into garments. They considered their companies as being impacted indirectly. Table 27 indicated that of the manufacturers, U.S. and U.S. & Offshore, 77.8% were impacted by IP theft to some degree. Only two of the nine companies said that they had not been impacted at all. They were both bottom weight manufacturers with more than 50% of their manufacturing offshore.

None of the retailers felt that they had been impacted by IP theft. This may change as retailers become more vertically independent. As mentioned in the Phase I results, recent trends indicated that retailers are using branding and private label expansion as a competitive advantage.

**Table 27: Analysis Two – Intellectual Property**

<b>4) Intellectual Property Rights</b>					
Q. To what extent has your company been impacted by IP theft?					
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>	
none	0	2	6	8	
small amount	2	2	0	4	<b>77.8%</b>
large amount	1	2	0	3	
no answer	0	0	0	0	
Totals	3	6	6	15	

### **Government Interaction**

During the interviews, one of the research questions asked about federal government subsidies. The vast majority of the responses did not correlate to the subsidies listed in the Phase I results. All of the companies replied to the question in terms of government interaction as it relates to international trade. The companies generally spoke of political, economical, or a combination of both as a reason for governments to impact trade.

#### ***Analysis One – Market***

The only part of analysis one, depicted in Table 28, which appeared to emerge as a significant factor was that two of the bottom weight companies felt that the main reason that government impacted international trade was for political reasons. They stated that the U.S. government uses trade as a means for ensuring

peace with other nations. One company stated that by supporting countries like Bangladesh with trade, it will create more jobs and lessen the risk of terrorist acts against the United States.

**Table 28: Analysis One – Government Interaction**

<b>5) Government Interaction</b>			
Q. How has government interaction impacted you, in terms of international trade?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
political	2	0	2
economic	3	3	6
both	3	1	4
no answer	1	2	3
Totals	9	6	15

**Analysis Two – Supply Chain Segment**

Analysis two, shown in Table 29, had no significant results. The two companies that thought government interaction with trade was mostly political both have the majority of manufacturing offshore. Two of the three retailers that responded said that government interaction was mostly economical. The main theme from the interviews was that the U.S. government uses its economic trade power to improve certain political situations.

**Table 29: Analysis Two – Government Interaction**

<b>5) Government Interaction</b>				
Q. How has government interaction impacted you, in terms of international trade?				
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>
political	0	2	0	2
economic	2	2	2	6
both	1	2	1	4
no answer	0	0	3	3
Totals	3	6	6	15

## Employee Benefits

### ***Analysis One – Market***

On average, employee benefits make up approximately 21% of the total compensation for manufacturing workers in the United States. That amounts to about \$1.41 per hour worked. A major trade factor that companies benefit or lose from is the disparity of total compensation from one country to another. On average, China only provides around 8% of the total compensation towards employee benefits. How much of an impact does this disparity have on companies within various markets? Analysis one, shown in Table 30 indicated that 53.3% of the respondents did not have enough knowledge about this factor to provide an answer. An interesting split occurred between the bottom weight companies and the bed/bath companies. Of those executives that did respond, two of the three bottom weight companies felt that the costs of employee benefits were detrimental to their success. Three of the four bed/bath companies felt that they used the cost of employee benefits to their advantage, by owning manufacturing locations offshore.

**Table 30: Analysis One – Employee Benefits**

<b>6) Employee Benefits</b>			
Q. Are employee benefits beneficial or detrimental to your company?			
	<b>Bottom weight</b>	<b>Bed/ Bath</b>	<b>Totals</b>
detrimental	2	1	3
beneficial	1	3	4
no answer	6	2	8 <b>53.3%</b>
Totals	9	6	15

**Analysis Two – Supply Chain Segment**

After separating the responses according to the segment of the supply chain, none of U.S. manufacturers felt that the cost of employee benefits was beneficial to their company.

**Table 31: Analysis Two – Employee Benefits**

<b>6) Employee Benefits</b>				
Q. Are employee benefits beneficial or detrimental to your company?				
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>
detrimental	1	1	1	3
beneficial	0	2	2	4
no answer	2	3	3	<b>8</b> <b>53.3%</b>
Totals	3	6	6	15

Phase I of the study provided more insight with secondary data than the interviews regarding employee benefits. Although 21% of total compensation can be attributed to employee benefits in U.S. manufacturing jobs, the disparity between wages appears to have a greater impact on cost. Continuing the comparison to China, the difference in hourly wages far exceeds the cost of employee benefit plans. Even if Chinese companies paid their workers the same amount towards employee benefits, the labor cost would still be approximately \$2.10 per hour compared to \$12.69 per hour in the United States. ([www.census.gov](http://www.census.gov), 2004, data was for textile and apparel manufacturing jobs in 2001) An executive from one company stated that it is not good to separate that one piece of the total cost to determine its beneficial or detrimental effects on companies. He stated that decisions should be based on total cost.

## **Countries and Regions**

The primary data collected in Phase II provided a short list of capable and probable countries to source products from for the two markets in the research. Countries were primarily chosen as “winners” for each market due to the nature of the product related to the core competencies of a country, proximity to market, labor cost, beneficial trade agreements, or a combination of these. Each market had distinct countries that emerged as the major leaders. Refer to country trade summaries in Tables 9-18 of Phase I Results in Chapter IV, for secondary information regarding each country. As indicated in Table 32, three countries emerged as commonly utilized by both markets. They were China, India, and Pakistan. China is the obvious consensus choice as a sourcing location for apparel and home textiles. The executives repeatedly stated that China provides the following benefits as an exporter:

- An abundance of low cost labor (population is 1.3 billion)
- Excellent infrastructure: ports, roads, and communication technology
- Willingness to do business, and a very customer-driven attitude
- Variety and volume of products in the region

Mexico was also a very important country to source from for the bottom weights market. All eight of the companies interviewed produced or sourced products from Mexico, and the trade benefits continue to keep Mexico competitive. Labor costs have increased in Mexico, but the proximity to the U.S. market along with the established cut and sew factories make it a viable place to make bottom weight products.



**Table 32: Leading Countries for Each Market**

<b>6) Countries</b>			
Q. Which countries are most favorable for you to include in your supply chain?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
China	7	6	13
India	3	6	9
Pakistan	3	6	9
Mexico	8	0	8
Honduras	5	0	5
Turkey	1	3	4
Dominican Rep.	4	0	4
Hong Kong	4	0	4
Brazil	0	3	3
Guatemala	3	0	3

***Bottom weights market***

Bottom weights companies generally put more value in speed to market than the bed/bath companies. The bottom weight companies interviewed all utilize countries in the Latin and Central America because of preferential trade agreements (CBI and NAFTA), as well as proximity to the U.S. market. The leading bottom weights countries, excluding the three mentioned as common between the two markets are Mexico, Honduras, Dominican Republic, Hong Kong, and Guatemala. Hong Kong is the only country not located in the Western Hemisphere. Mexico is an important key for bottom weight products in the U.S. market. Eight of the nine companies involved in that market use Mexico for a portion of manufacturing.

Central and Latin American countries have a well-developed cut and sew industry and have benefited from yarn or fabric forward rules of preference that allows U.S. companies to import apparel from those countries that are made of U.S.

yarns or fabrics, minus duties and tariffs. Every bottom weight company interviewed had at least a portion of their products coming from that region, and Table 33 indicated that about 67% of the responding companies use Central and Latin America as the primary location for offshore production.

**Table 33: Leading Regions for Each Market**

<b>7) Regions</b>			
Q. Do you use Asia or Central/Latin America as your primary sourcing region?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
Asia	3	5	8
C./Latin Am.	6	1	7
Totals	9 <b>66.7%</b>	6 <b>83.3%</b>	15

***Bed/bath market***

The bed/bath market provided a different list of countries as most beneficial to source or manufacture products. According to the interviews, 80% of the bed/bath companies use Asia as the primary location for offshore production. China, India, and Pakistan were used by every bed/bath company interviewed. The executives referred to several key reasons that India is a good place to source products. According to the executives, India is beneficial due to the following:

- An abundance of low cost labor (1.1 billion people)
- Very design oriented and creative people
- Most business people speak English

Many of the companies referred to India as a major alternative for sourcing from China. Pakistan is used as the third alternative in most cases, but political stability is a bigger issue there. Most of the executives stated that the uncertainty surrounding safeguards in China will slow a major shift of companies sourcing from only one place. Retailers like to have sourcing options, rather than one location for all products. Sourcing options mean that supply chains must maintain a certain level of complexity to supply the service that retailers expect.

### **Global Factors of Competitiveness**

After the interviews, the list of global factors of competitiveness was revisited. The list from the Phase I results indicated that the following categories must be considered to form a successful global strategy in the textile and apparel industry:

- Business Climate
- Infrastructure
- Proximity to Market
- Labor and Management
- Raw Material Availability
- Service and Reliability

The interviews provided specific information for each of these categories, as the executives described their global strategies. Each category was broken down so that the research provided the aspects of each category that are vital to enhancing company performance in the global bottom weight and bed/bath markets. Once again, a plan may be successful without optimizing all of the factors, but overall a

company must take advantage of at least one of these factors to ensure its competitiveness.

An emerging theme from the in-depth interviews was the importance of first cost versus total cost. According to the executives interviewed, companies often make mistakes based on first cost. Global factors of competitiveness can provide more of a realistic map for understanding total cost. With proper analysis, companies can input all of the costs associated with sourcing or manufacturing products in various locations in order to provide a complete representation of the total cost of a product. Working on a total cost premise optimizes the supply chain by reducing overall costs and not sub-optimizing segments in an attempt to create a low first cost product.

### ***Business Climate***

The executives referred to some important factors within the business climate while planning a global strategy. Companies must conduct in-depth background research on the country and region where it plans to locate. The business climate refers to political stability, government interaction, currency exchange rates, and compliance issues from specific countries. As the executives spoke of deciding how to blend their sourcing models to capitalize on cost, speed, and quality the vast majority of the companies chose to stay away from sourcing in Africa. The respondents said that the political instability, distance from market, and compliance issues were major reasons to avoid sourcing or producing in Africa.

## ***Infrastructure***

Infrastructure was a factor that fell into the logistics plans of most companies. Important infrastructure capabilities were mentioned in every interview. Infrastructure is a major obstacle in some of the developing countries such as India and Pakistan. The infrastructure needed to be classified as a quality exporter were:

- Ports
- Roads
- Railroads
- Airports

Adequate infrastructure allows products to be shipped smoothly and arrive at its destination with minimal unexpected events. Those events could cause an order to arrive late, and reliability is one of the major attributes retail executives place the most value. American companies can capitalize on markets where speed and reliability hold a higher value. Two executives claimed that doing business overseas, primarily in Asia, is a risk because many companies have a lack of recourse when problems occur.

Another opportunity in the United States were the occasional gridlock at west coast ports due to an influx in imported goods from Asia. Many of the companies had to divert boats through the Panama Canal to east coast ports so that products were not held up for weeks in the overly crowded Port of Los Angeles. Newer ships are being built that hold more containers, but some of the ports are not large enough to service them. Two of the retail executives claimed that the United States will have

to spend money to upgrade its ports if we plan to sustain the import growth that has occurred.

### ***Proximity to Market***

Certain customers place more value in the ability to have suppliers close to the U.S. market. The bottom weight companies have a large presence in offshore production in the Western Hemisphere. During the interviews, several differences emerged due to product market. For instance, apparel tends to be more sensitive to long supply chains caused by Asian sourcing. One mass retail executive stated that if you have products tied up in transit while the product is selling, you could miss potential sales and increase the risk of having to markdown the items. The benefit of using Central or Latin America is shortening that supply chain tying up less products and having more forecasts based on actual orders, rather than estimates.

The bed/bath companies did not seem to place as much importance into the proximity to market. They chose to use some of the Asian countries due to core competencies and quality. One offshore manufacturer stated that the exception is the use of Brazil for high volume, consistent orders.

### ***Labor and Management***

Labor and management were always factors that the executives based decisions on. Labor costs are a major component of the first cost that is usually considered by product buyers. The first cost is not usually what decisions are based on, but it is a starting point for the majority of the decision makers. Several retailers stated that labor costs sometimes cause the U.S. manufacturers to be considered cost prohibitive.

In order to move into a new region, companies must understand the availability of educated middle management, along with the overall esteem of its workers. An executive with experience in Mexico stated that his company had major opportunities due to inadequate management. The factory struggled to increase productivity for the first couple of years it was running. Low productivity took away from some of the other advantages that the company expected to capitalize on, such as lower labor costs.

The skill of the local work force is important as well. Sourcing decisions were often based on core competencies (skills and creativity) of the workers in certain regions. India, for example, is used primarily because of its low labor costs and creative workers. China is more known for high productivity and the ability to reproduce a sample given by the customer.

### ***Raw Material Availability***

Raw material availability is what makes China, India, Pakistan, and Brazil strong sourcing options for companies. These types of supplier countries have vertical capability, increasing their competitive advantage in the global market. These countries have cotton available, as well as yarn and fabric production. By having these inputs close in proximity, it lowers costs for producers in these areas and often shortens lead times. Those are two major factors considered part of providing service to the customer. Countries in Central America may struggle to compete, due to its limitations with raw material availability. Many of these countries are known for their cut and sew capability, while the yarn and fabric formation are

considered newer industries. It is noted that the Central American countries have worked to build their vertical capability providing full package to the customers.

The research revealed that the bottom weight leaders are almost all located in Latin or Central America, where there is no raw material supply. Central and Latin America lack an adequate supply of cotton, yarn, and fabric from manufacturing in those locations. This partly explains why so many American companies have chosen to manufacture bottom weight apparel in the region. On the other hand, the bed/bath countries that emerged as leaders all have a vast supply of raw materials, including cotton. There appears to be a difference in the apparel manufacturing aspect of the supply chain compared with that of the bed/bath products.

### ***Service and Reliability***

Service and reliability, combined, is the single most important attribute of a supplier, in the opinion of every retailer interviewed. Cost and quality are generally considered implied by the retailer. They said that if you cannot compete with cost and quality, then you will not be in business. Service and reliability, however, vary from vendor to vendor. Retailers generally said that they paid more to the reliable suppliers that make them feel comfortable about shipments. The factors considered as service related were:

- On-time delivery
- Meets quality expectations
- Cost competitive

Service and reliability are what U.S. manufacturers can capitalize most on. Having a proximity advantage over offshore suppliers, U.S. companies could



improve on-time delivery performance. U.S. manufacturers generally would not have to deal with unexpected logistics issues, such as congested ports, customs checks, and the ability to reship anything due to incorrect orders. The retailers generally felt that many offshore suppliers worked diligently to provide a high level of service.

### **Final Analysis of Research Questions**

After Phase I and II were complete, additional research was done from secondary sources to help explain how the two phases come together. The majority of information was compiled from the 2002 IMD World Competitiveness Yearbook for 2002. The data was taken from international, national and regional organizations and private institutes. The survey data was drawn from their Executive Opinion Survey of 3,532 respondents. Individual categories of data are displayed by research question in the following chapters.

#### **RQ1: What are the currency issues that exist in international trade?**

The key currency issues from the literature were 1) exchange rates, and 2) currency manipulation. Currency exchange rates are determined by a country's government. Exchange rates affect the value of a currency against other countries' currencies, and can create an advantage or disadvantage during international trade. Table 34 lists the currency and exchange rates of the ten countries identified from Chapter 2 of the research.

**Table 34: Currency Information by Country**

Currency Information for March 2005		
Country	Currency/ Exchange rate	Description
Brazil	real	Currently it is weak, encouraging exports. A strong real, coupled with Chinese economic slowdown, could be detrimental to investors.
	2.719 = 1 USD	
China	yuan or renminbi	Tightly controlled at 8.277 to the USD, allowing China to build a growing trade surplus with many of its trade partners, including the U.S.
	8.277 = 1 USD	
D.R.	pesos	Moved to a unified exchange rate in 2003. It was previously divided between the public and private sector. There was a major currency devaluation in 2003.
	28 = 1 USD	
Guatemala	quetzales	Guatemala pursues a "dirty float" exchange rate regime. The currency is relatively stable, with the Central government rarely intervening with the market.
	7.62 = 1 USD	
Honduras	lempira	Floats freely with the market and remains relatively strong against the USD.
	19.52 = 1 USD	
Hong Kong	HK Dollars	It is tightly controlled at 7.8 HKD to the USD.
	7.8 = 1 USD	
India	rupees	Not fully convertible in the market. India was shielded to the East Asian currency crisis due to its low exposure to global financial markets and its staged approach to liberalization.
	43.67 = 1 USD	
Mexico	pesos	Mexico's objective is to keep price stability with low inflation.
	11.322 = 1 USD	
Pakistan	rupees	Floats freely on the market and has fallen against the USD.
	59.40 = 1 USD	
Turkey	lira	Turkey practices a flexible exchange rate system.
	1.38 = 1 USD	

Source: Data compiled from Stat-USA's 2003 Country Commercial Guides and [www.ilo.org](http://www.ilo.org)

According to a quantitative survey in the IMD Country Competitiveness Yearbook, exchange rate policies are viewed somewhat differently among the nations in this study. Table 35 draws comparisons among the United States, Asia, and Central/South America. The survey question from IMD was, "On a scale of one to ten, the exchange rate policy of your country hinders (1) or supports (10) the competitiveness of enterprises?" Those surveyed from the United States felt that the exchange rate policy supports their competitiveness more than hindering it. Conversely, the Asian respondents felt that their policies were slightly more hindering than supporting.

**Table 35: IMD Survey Results for Exchange Rate Policy**

<b>Exchange Rate Policy</b>	
<b>REGION</b>	<b>SCORE</b>
<b>UNITED STATES</b>	<b>6.12</b>
China	5.89
Hong Kong	3.63
India	5.48
Turkey	4.72
<b>ASIA</b>	<b>4.93</b>
Brazil	6.89
Mexico	4.51
<b>CENTRAL/SO. AMERICA</b>	<b>5.70</b>
<b>1- hinder, 10- supports competitiveness</b>	

Source: IMD Country Competitiveness Yearbook 2002

During Phase II of the research, the industry executives from the sample were asked how currency exchange rates affected their businesses. According to the bottom weight and bed/bath companies, 80% responded that currency exchange rates had a small amount or no effect on their companies. The majority of companies said it did not affect them because they use US dollars in relatively all of their contracts.

**Table 36: Phase II Interview Results for Currency Exchange Rates**

<b>1) Currency Exchange Rates</b>			
<b>Q. Do currency exchange rates impact your business?</b>			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
none	4	2	6
small amount	4	2	6
large amount	0	1	1
no answer	1	1	2
<b>Totals</b>	<b>9</b>	<b>6</b>	<b>15</b>

**80.0%**

It is important to note that the bed/bath companies felt that the currency risk is at the vendor level. For instance, if a company has overseas operations, raw materials prices may vary with exchange rates changing the cost of goods sold. The one bed/bath company that felt impact to a large degree gets products from Europe and the strength of the Euro has made it more difficult to import products and maintain profit levels. The executive said that it was not as big of an issue in Asia.

Currency manipulation is the second key theme from the literature. The manipulation is a method some countries take to reduce the chance of a currency crisis or provide an export advantage by making their products “cheaper” in the market. The governments of the developing countries in Asia often claim that the currencies must be tightly controlled and allowed little flexibility to help maintain a stable economy. The officials are trying to stave off another incident similar to the one in the late 1990’s when many Asian currencies dropped dramatically. Many countries in East and Southeast Asia have currencies “pegged” to or tightly controlled against the “floating” currencies of market economies, namely the US Dollar. By not allowing currency to float according to markets, it could create a distinct trade advantage for the exporting country.

The secondary data indicated that all Asian currencies, excluding Indonesia, were devalued creating a distinct export advantage for those countries. China’s currency, known as the yuan or renminbi, is pegged at 8.3 to the U.S. dollar. Of the 18 companies interviewed during Phase II of the study, 14 of them conduct business in China, which could lead to lower cost of goods sold due to beneficial exchange rates. Many independent studies have estimated that China’s currency is devalued

some 25-40% (D. Sambandhan, 2003, D. Hartquist, 2004). As the U.S. dollar weakens, so too does the Chinese currency making their exports artificially cheaper in global markets. In other words, Chinese goods may enter the market with a 25-40% advantage over American products, even with all other cost factors being equal.

**RQ2: What are the impacts of environmental and social compliance on textile and apparel companies?**

The two key issues described in the literature regarding compliance are listed below.

- Are environmental regulations beneficial or detrimental to competitiveness?
- Social issues in developing countries.

Table 37 lists details regarding each country and its compliance regulations. Each country has its own compliance regulations, but standard regulations are often drawn up in international trade agreements to ensure countries are working to improve living conditions and environmental degradation inherent with industrialization.

The Worldwide Responsible Apparel Production (WRAP) group was initiated by the textile industry to ensure proper measures are taken to reduce or prevent sweatshop labor situations. As of March 2005, WRAP has over 1,339 participating factories in 81 countries. Of those, 578 factories are certified with many others waiting to receive certification. WRAP is an independent certification program for factories, and is founded on 12 core principles regarding workers' rights and workplace conditions.

**Table 37: Compliance Information by Country**

Compliance	
<b>Brazil</b>	Environmental degradation is a major problem.
<b>China</b>	The legal and regulatory system is described as opaque, inconsistent, and arbitrary.
<b>D.R.</b>	no data available.
<b>Guatemala</b>	There is not a strong legislative process of writing and enforcing regulations.
<b>Honduras</b>	Regulatory requirements are time consuming and costly.
<b>Hong Kong</b>	Very clear regulations. Spent US \$841.8 M on environmental protection in 2003.
<b>India</b>	Polluting industrial projects must be at least 25 km away from the Standard Urban Area limits of cities with >1 million people. No centralized government regulations.
<b>Mexico</b>	Mexico works closely with the U.S. to control environmental issues, primarily near the shared border. These are generally highly industrialized areas.
<b>Pakistan</b>	The Pakistan EPA was formed in 1997 to provide a legal framework to address the prevention and control of pollution. The government struggles to review, assess, and monitor them.
<b>Turkey</b>	Labor, health, and safety laws do not generally deter investors. All factories must complete the procedure of submitting an Environmental Impact Assessment to the Ministry of the Environment before they will be approved to begin construction.

Source: Data compiled from Stat-USA's 2003 Country Commercial Guides

There were a few theories regarding whether or not environmental compliance regulations were beneficial or detrimental to competitiveness. Michael Porter believed that a government that forced stricter environmental policies actually gained a competitive advantage. He said that it would force the domestic industry to focus on innovation faster than its foreign counterparts, therefore improving long term success of the industry. This, of course, comes with the tradeoff that companies will incur higher costs to maintain this level of innovation. These costs put more pressure on the domestic companies as costs become an important component of competitiveness.

Compliance regulations were explained as potentially negative by Ulph, who said that an increase in consumption, production, and trade may cause an increase in pollution and a reduction in natural resources. Ulph also believes that it could cause governments to impose less-stringent environment regulations, because

stricter policies could hinder the competitiveness of their domestic economies (Ulph, 2001). Without trade policy mandates for environmental protection, governments could make their policies vague in order to protect those domestic markets.

Social issues in developing countries became more public as textile and apparel companies went offshore for production and sourcing, a major industry trend. The need for social codes of conduct arose as globalization became a reality. Now that WTO countries can trade freely among one another, it is important for companies to impose regulations to improve the developing countries' way of life as their industries develop. Some major retailers were directly impacted by bad publicity regarding so-called "sweatshop labor." Social compliance audits are performed to ensure factories are maintaining their standards, and not depriving workers of the safe conditions that our society deems acceptable. The result is a major push by retailers to audit supplier locations in the areas of labor laws, environmental issues, wages, and hours worked.

Phase I of the research revealed that, according to the IMD competitiveness survey, the respondents reported that all three regions felt environmental laws were less hindering to their competitiveness. Table 38 provides the results to the survey. The question regarding environmental laws was, "On a scale of one to ten, do environmental laws and compliance hinder the competitiveness of businesses?" (1=hinder and 10=do not hinder).

**Table 38: Survey Results for Environmental Laws**

<b>Environmental Laws</b>	
<b>REGION</b>	<b>SCORE</b>
<b>UNITED STATES</b>	<b>6.16</b>
China	6.68
Hong Kong	6.20
India	5.24
Turkey	6.22
<b>ASIA</b>	<b>6.09</b>
Brazil	5.90
Mexico	5.80
<b>CENTRAL/SO. AMERICA</b>	<b>5.85</b>
<b>1- hinder, 10- do not hinder</b>	

Another section of the IMD survey revealed that, although the countries from this research all felt that regulations did not hinder them more than fifty percent of the time, the United States is much more efficient with its natural resources than the offshore counterparts. The U.S. has eight times more carbon dioxide emissions per capita than the Asian countries, but earned three times more GDP than the same Asian countries. This indicated that the U.S. generates more money with the use of its resources than the Asian countries, where pollution is very prevalent. The Central/South American countries had 2.04 metric tons of carbon emissions per capita, but only had 661.8 metric tons per \$1M USD of GDP. The per capita emissions numbers may be a bit misleading because China, for instance, has 1.3 billion people compared to around 280 million in the United States. Much of the Chinese population still lives in rural areas as farmers. Many industrialized areas in Asia are heavily polluted due to poorly enforced environmental standards.



**Table 39: Carbon Dioxide Emissions in 1999**

<b>Carbon Dioxide Emissions Per Capita</b>	
<b>REGION</b>	<b>Metric Tons</b>
<b>UNITED STATES</b>	<b>19.7</b>
China	2.3
Hong Kong	6.2
India	1.1
Pakistan	0.7
Turkey	3.1
<b>ASIA</b>	<b>2.68</b>
Brazil	1.80
Dominican Republic	2.80
Guatemala	0.90
Honduras	0.80
Mexico	3.90
<b>CENTRAL/SO. AMERICA</b>	<b>2.04</b>

Source: [www.undp.org](http://www.undp.org) "Human Development Indicators" (2003)

As mentioned, this improved efficiency of operations in the United States has added to the cost of manufacturing. A study by J. Leonard (2003) stated that American companies pay an average of \$0.88 per hour worked to maintain regulatory compliance. Asian companies have made strides in the area of regulatory compliance, but they are not comparable with the United States. A 1998 World Health Organization Report revealed that seven of the world's ten most polluted cities were in China. Accordingly, respiratory and heart diseases related to air pollution are the leading cause of death in China.

The social aspect involved in developing countries is another key issue. . The question was, "On a scale of one to ten, social responsibility of business leaders is low (1) or high (10), towards society?" Table 40 lists the results. According to the survey, Asian countries do not feel as though their business leaders hold social

responsibility to as high a level as U.S. or Central/South American business leaders. The U.S. scored just under seven, while Asia scored under a five.

**Table 40: Results of Social Compliance by Region**

<b>Social Compliance</b>	
<b>REGION</b>	<b>SCORE</b>
<b>UNITED STATES</b>	<b>6.83</b>
China	5.39
Hong Kong	5.19
India	4.08
Turkey	5.00
<b>ASIA</b>	<b>4.92</b>
Brazil	5.83
Mexico	4.62
<b>CENTRAL/SO. AMERICA</b>	<b>5.23</b>
<b>Social responsibility of business leaders is (1- low, 10- high) towards society</b>	

Source: IMD Country Competitiveness Yearbook 2002

Phase II results from the interviews supported these findings, because the U.S. companies overwhelmingly revealed that they thought environmental and social compliance were important. They stated that it was especially important with the increase in offshore production for the U.S. markets. Companies in developing countries can expect at least one compliance audit per year from each major retailer, at a cost of around \$2,000 per visit. That does not include visits from sourcing agents, or other intermediaries. If a Chinese fabric weaving plant ships to a cut and sew manufacturer, the weaving plant should generally expect audits from both the cut and sew manufacturer (direct customer) and the retailer (final customer) that ultimately receives the goods. Compliance audits add costs for offshore manufacturers in developing countries, but most companies believed that is a necessity to ensure industrialization takes place in an ethical manner. It is important

that social issues are understood because increasing trade in the developing regions could cause major impacts on society and livelihood of the people in those countries.

**RQ3: What is the impact of intellectual property theft in global markets?**

Intellectual Property (IP) is a product, process, or technology that has patent or legal right associated with it. IP theft occurs within the textile and apparel industry, as well as many other industries. The two emerging themes for IP theft described in the literature are 1) whether or not IP was adequately protected, and 2) whether or not government policy was transparent or not.

**Table 41: Intellectual Property Information by Country**

Intellectual Property	
<b>Brazil</b>	The legal system is often overloaded, and the country is on the Special 301 Priority Watch List regarding IP theft.
<b>China</b>	The Chinese government is not aggressively protecting the rights.
<b>D.R.</b>	The government has increased policies directed at improving IP rights protection. Some industry representatives question their enforcement. Recently upgraded from Priority Watch List to Watch List.
<b>Guatemala</b>	Complaint with the WTO rules, but prosecution of violators is rare.
<b>Honduras</b>	Complaint with the Trade Related Aspects of Intellectual Property Rights (TRIPS) including trademarks and patents.
<b>Hong Kong</b>	Hong Kong is known for having a comprehensive, modern, and transparent system for IP protection. It covers trademarks, copyright, patents and designs, plant varieties, and trade secrets.
<b>India</b>	There are effective copyright and trademark laws, but enforcement is not common.
<b>Mexico</b>	Solid laws in place, but not a very aggressive enforcement and prosecution process. Placed on the U.S. Special 301 watch list for countries with inadequate enforcement of IP rights.
<b>Pakistan</b>	Trademarks, patents, and designs are included in the laws but rules to enforce IP rights are incomplete.
<b>Turkey</b>	Legal structure exists and provides clear interpretation of copyright and patent protection, but effectiveness is limited by lack of resources.

Data compiled from Stat-USA's 2003 Country Commercial Guides

As the internet and communication technology speed up the world of development, it is easier to knock off a product or process. Asian countries are often mentioned for having a problem with IP rights. The Chinese government realizes that this is a major problem in their country and publicly claims that it is on their list of priorities to tend to. This is especially important since the WTO members must abide by the

rules established within the Trade-Related aspects of Intellectual Property Rights (TRIPS), which says that countries must protect and enforce IP rights. Unfortunately, many consumers do not realize it when they purchase IP-infringing goods. Some companies have claimed that the cost of losing IP in certain regions, namely China, discourage foreign investment.

The IMD Competitiveness survey results supported the literature regarding Asia who scored almost four full points behind the United States. Central and South America also scored much lower than the United States. Therefore, regarding IP protection in the two regions involved in the bottom weight and bed/bath markets, both regions have a problem protecting IP compared to the United States. The respondents from each of the regions gave their score according to the following survey question: “On a scale of one to ten, are patents and copyrights adequately protected in your country?” (1= is not adequately protected, and 10= is adequately protected).

**Table 42: IMD Survey Results for Intellectual Property Protection**

<b>Intellectual Property Protection</b>	
<b>REGION</b>	<b>SCORE</b>
<b>UNITED STATES</b>	<b>8.95</b>
China	4.95
Hong Kong	6.39
India	4.04
Turkey	4.69
<b>ASIA</b>	<b>5.02</b>
Brazil	5.37
Mexico	4.46
<b>CENTRAL/SO. AMERICA</b>	<b>4.92</b>
<b>1- not adequately protected, 10- adequately protected</b>	

Source: IMD Country Competitiveness Yearbook 2002

During Phase II of the research, the executive respondents provided information regarding the impact of IP theft on their companies. Table 43 depicts that of all manufacturers in the sample, U.S. and Offshore, 77.8% were impacted by IP theft to some degree. None of the bed/bath executives felt that they had been impacted to a large degree, but one of those executives stated that it was mainly due to the nature of most bed/bath products. He stated that his company felt that it was not worth putting more resources towards. Three of the bottom weight companies felt that they had been impacted by IP theft to a large degree. This indicated that apparel products have a tendency to be copied more than bed/bath products.

**Table 43: Phase II Results for Intellectual Property Theft**

<b>4) Intellectual Property Rights</b>					
Q. To what extent has your company been impacted by IP theft?					
	<b>U.S. Manufacturers</b>	<b>U.S. &amp; Offshore Manufacturers</b>	<b>U.S. Retailers</b>	<b>Totals</b>	
none	0	2	6	8	
small amount	2	2	0	4	<b>77.8%</b>
large amount	1	2	0	3	
no answer	0	0	0	0	
Totals	3	6	6	15	

None of the retailers felt that they had been impacted by IP theft. This may change as retailers become more vertically independent. As mentioned in the Phase I results, recent trends indicated that retailers are using branding and private label expansion as a competitive advantage. As the retailers begin to own more brands and private labels, it is more likely that they will be impacted by IP theft the same way that the manufacturers were.

The second key issue described in the literature was whether or not government policy was transparent or not. Transparent policy is defined as being multi-dimensional and includes the clarification of policy goals, of policy procedures, and the timeliness in reporting policy decisions. These factors are key parts of maintaining IP protection and the more transparent the policies are, the easier it is for governments to enforce them. The secondary data, shown in Table 44, indicated that Asian countries felt that they had the least transparent government policy.

**Table 44: Transparency of Government Policy by Global Region**

<b>Transparency of Policy</b>	
<b>REGION</b>	<b>SCORE</b>
<b>UNITED STATES</b>	<b>6.62</b>
China	4.69
Hong Kong	5.62
India	3.70
Turkey	3.38
<b>ASIA</b>	<b>4.35</b>
Brazil	5.73
Mexico	5.12
<b>CENTRAL/SO. AMERICA</b>	<b>5.43</b>
<b>1- poor, 10- satisfactory</b>	

Source: IMD Country Competitiveness Yearbook 2002

Central and South American respondents reported their respective policies as being slightly more satisfactory than poor. The United States respondents reported a 6.62 out of a possible 10, which supports the data from the first key issue regarding enforcement of IP. United States policy is much more transparent, making it easier for government to enforce IP regulations.

#### **RQ4: How has federal government support affected the textile and apparel industry?**

The key issues described in the literature were related to various types of federal subsidies. Subsidies can be implemented to help a domestic industry against sudden, short-term changes in certain markets. The Chinese government, due to the nature of its politics, can assist certain industries and use measures to make it difficult for others to penetrate into their market through local and federal laws regarding foreign investment. The United States government is known for its heavily subsidized agricultural sector, and has faced a charge in the WTO regarding cotton with Brazil. Various types of financial support provided by federal governments include:

- direct subsidies
- interest-free and concessional loans
- loan guarantees and default insurance
- tax write-offs
- accelerated depreciation allowances
- reduced social security contributions for employees
- public ownership

Subsidies vary from country to country. Developing countries may provide benefits for businesses to start up so that they can gain larger market shares in the long term. China is often mentioned as a major provider of subsidies to its textile and apparel industry. With the availability of vast, low-cost labor, it is an ideal industry to support in a fast-growing market. Secondary data sources calculated

federal subsidies as a percentage of GDP for each country that participated. Table 45 depicts the results for federal subsidies in each of the regions in this research. It indicated that the United States only subsidized .57% of its GDP, while the Asian and Central/South American countries subsidized .74 and .97 of its GDP, respectively.

**Table 45: Federal Subsidies as a Percentage of GDP**

<b>Federal Subsidies</b>	
<b>REGION</b>	<b>SCORE</b>
<b>UNITED STATES</b>	<b>0.57</b>
China	1.48
Hong Kong	0.00
India	1.23
Turkey	0.27
<b>ASIA</b>	<b>0.74</b>
Brazil	1.59
Mexico	0.34
<b>CENTRAL/SO. AMERICA</b>	<b>0.97</b>
<b>As a percentage of GDP</b>	

Source: IMD Country Competitiveness Yearbook 2002

The in-depth interviews from Phase II of the study did not provide any specific information regarding federal subsidies. A common theme among the sample respondents was that the United States government often used its trade power to influence other nations to be friendly. Once again, since textiles and apparel are easy to implement in developing countries, they are often subsidized to benefit those domestic economies. This has an indirect impact on American companies because those foreign companies will have even lower costs due to the federal support of certain industries.



### **RQ5: What impact does employee benefits plans have on companies?**

The literature revealed that there are two major components of labor cost to understand when researching the cost of employees. First, it is important to research the total compensation from one country to another. Second, it is important to understand what percentage of that total compensation is given to employee benefits. The literature revealed that total compensation included hourly wages plus health and retirement benefits. American manufacturing companies pay around \$2.66 per hour worked, or 21% of the total compensation, towards benefit plans. On the other hand, Chinese companies generally pay around \$0.06 per hour worked, or 8% of the total compensation, towards benefit plans. Obviously the disparity lies in the hourly wages of the associates and the cost of benefit plans. American manufacturers pay \$12.69 per hour total compensation, compared to \$0.69 per hour in China.

Phase I data indicated that the hourly wage for textile and apparel manufacturing in the United States was \$12.69 per hour, compared with \$2.15 and \$1.36 per hour for Asia and Central/South America, respectively. Cost of labor is a major disadvantage for U.S. textile and apparel manufacturers.

**Table 46: Average Wage and Average Benefits by Country in 2003**

<b>Average Wages and Cost of Benefits</b>			
<b>REGION</b>	<b>Avg. Wages*</b>	<b>Avg. Benefits*</b>	<b>Total Compensation*</b>
<b>UNITED STATES</b>	<b>\$10.08</b>	<b>\$2.61</b>	<b>\$12.69</b>
China	\$0.63	\$0.06	\$0.69
Hong Kong	\$5.54	no data	\$5.54
India	\$0.78	no data	\$0.78
Pakistan	\$0.43	no data	\$0.43
Turkey	\$3.45	no data	\$3.45
<b>ASIA</b>	<b>\$2.18</b>	<b>\$0.06</b>	<b>\$2.18</b>
Brazil	\$1.20	\$0.07	\$1.27
Dominican Republic	\$0.45	no data	\$0.45
Guatemala	\$0.88	\$0.58	\$1.46
Honduras	\$0.78	\$0.56	\$1.34
Mexico	\$2.03	\$0.26	\$2.29
<b>CENTRAL/SO. AMERICA</b>	<b>\$1.07</b>	<b>\$0.37</b>	<b>\$1.36</b>

\* in U.S. dollars per hour

(Sources: [www.ilo.org](http://www.ilo.org) and Stat-USA, 2005)

The costs of employee benefits also present a wide gap by geographic region. American companies pay \$2.61 per hour towards benefits, compared to \$0.06 and \$0.37 per hour in Asia and Central/South America, respectively.

**RQ6: Which countries are the best offshore trade partners in bed/bath and bottom weight textiles?**

Several countries have specific core competencies that add value to certain products. The countries that own the market share for bottom weight products are not necessarily the same countries that dominate bed/bath production. As described in the Chapter III Methodology, a thorough analysis was completed of the major producing countries for each product market. The list below shows the countries, not including the U.S., that were validated as leaders in their respective markets.

Bottom Weight Leaders

- Mexico

- Dominican Republic
- Hong Kong
- Honduras
- Guatemala

#### Bed/bath Leaders

- Pakistan
- China
- Turkey
- India
- Brazil

It is interesting to note that the bottom weight leaders are almost all located in Latin or Central America, where there is no raw material supply. Central and Latin America lack an adequate supply of cotton, yarn, and fabric from manufacturing in those locations. On the other hand, the bed/bath countries that emerged as leaders all have a vast supply of raw materials, including cotton. There appears to be a difference in the apparel manufacturing aspect of the supply chain compared with that of the bed/bath products.

The primary data collected in Phase II provided a short list of capable and probable countries to source products from for the two markets in the research. Countries were primarily chosen as “winners” for each market due to the nature of the product related to the core competencies of a country, proximity to market, labor cost, beneficial trade agreements, or a combination of these. Each market had distinct countries that emerged as the major leaders. Refer to country trade summaries in Tables 9-18 of Phase I Results in Chapter IV, for secondary information regarding each country. As indicated in Table 47, three countries emerged as commonly utilized by both markets. They were China, India, and

Pakistan. China is the obvious consensus choice as a sourcing location for apparel and home textiles. The executives repeatedly stated that China provides the following benefits as an exporter:

- An abundance of low cost labor (population is 1.3 billion)
- Excellent infrastructure: ports, roads, and communication technology
- Willingness to do business, and a very customer-driven attitude
- Variety and volume of products in the region

**Table 47: Leading Countries for Each Market**

<b>6) Countries</b>			
Q. Which countries are most favorable for you to include in your supply chain?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
China	7	6	13
India	3	6	9
Pakistan	3	6	9
Mexico	8	0	8
Honduras	5	0	5
Turkey	1	3	4
Dominican Rep.	4	0	4
Hong Kong	4	0	4
Brazil	0	3	3
Guatemala	3	0	3

***Bottom weights market***

Bottom weights companies generally put more value in speed to market than the bed/bath companies. The bottom weight companies interviewed all utilize countries in the Latin and Central America because of preferential trade agreements (CBI and NAFTA), as well as proximity to the U.S. market. The leading bottom weights countries, excluding the three mentioned as common between the two markets are Mexico, Honduras, Dominican Republic, Hong Kong, and Guatemala.

Hong Kong is the only country not located in the Western Hemisphere. Mexico is an important key for bottom weight products in the U.S. market. Eight of the nine companies involved in that market use Mexico for a portion of manufacturing.

### ***Bed/bath market***

The bed/bath market provided a different list of countries as most beneficial to source or manufacture products. According to the interviews, 80% of the bed/bath companies use Asia as the primary location for offshore production. China, India, and Pakistan were used by every bed/bath company interviewed. The executives referred to several key reasons that India is a good place to source products. According to the executives, India is beneficial due to the following:

- An abundance of low cost labor (1.1 billion people)
- Very design oriented and creative people
- Most business people speak English

Many of the companies referred to India as a major alternative for sourcing from China. Pakistan is used as the third alternative in most cases, but political stability is a bigger issue there. Most of the executives stated that the uncertainty surrounding safeguards in China will slow a major shift of companies sourcing from only one place. Retailers like to have sourcing options, rather than one location for all products. Sourcing options mean that supply chains must maintain a certain level of complexity to supply the service that retailers expect.

**RQ7: Which offshore regions support the bottom weight and bed/bath markets?**

Central and Latin American countries have a well-developed cut and sew industry and have benefited from yarn or fabric forward rules of preference that allows U.S. companies to import apparel from those countries that are made of U.S. yarns or fabrics, minus duties and tariffs. Every bottom weight company interviewed had at least a portion of their products coming from that region, and Table 48 indicated that about 67% of the responding companies use Central and Latin America as the primary location for offshore production.

**Table 48: Leading Regions for Each Market**

<b>7) Regions</b>			
Q. Do you use Asia or Central/Latin America as your primary sourcing region?			
	<b>Bottom weight</b>	<b>Bed/Bath</b>	<b>Totals</b>
Asia	3	<b>5</b>	8
C./Latin Am.	<b>6</b>	1	7
Totals	9	6	15
	<b>66.7%</b>	<b>83.3%</b>	

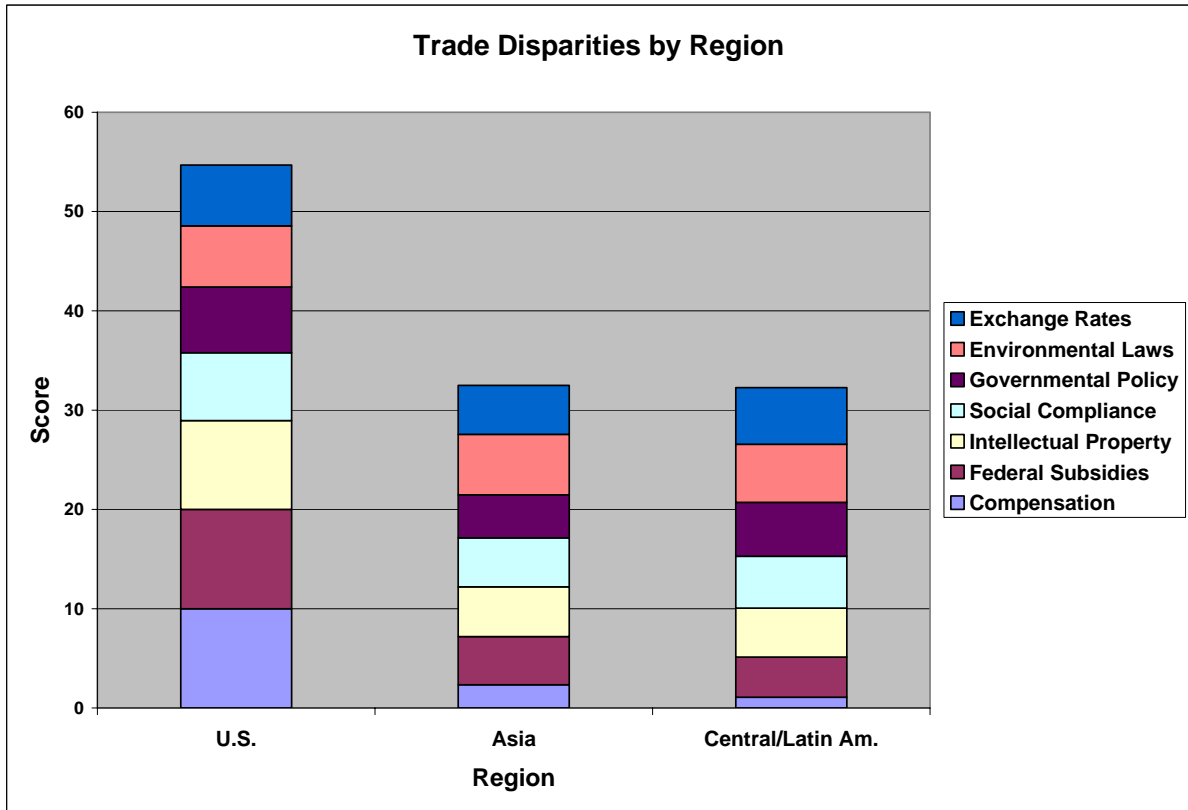
Asia supports most textile products, including bottom weight and bed/bath products. The distance creates a disadvantage, but many fashion products are made in Asia if there is no need for replenishment. The total cost benefit draws many manufacturers to the region. The bed/bath companies are drawn to Asia because the market has fewer replenishment needs. Asia was regarded as an optimal place to produce short-run, flexible manufacturing opportunities. Of the

companies interviewed in the bed/bath market, 83% do the majority of their sourcing in Asia.

Central and Latin America are known for their cut and sew capabilities. The textile and apparel industry is less-developed in this region compared to some areas in Asia, but trade benefits attract many manufacturers. Mexico is very important to the bottom weight apparel market. All eight companies involved in this market have products made in Mexico. The proximity to market advantage, which is more important to the apparel market, provides many opportunities for retailers in this region. Sixty-seven percent of the bottom weight companies interviewed utilized Central and Latin America for the majority of their sourcing. Shorter supply chains tie up fewer goods and allow the retailers to reduce the number of markdowns caused by products going out of style. This region is also beneficial to the bed/bath market for long-run, basic goods for replenishment purposes.

To combine the quantitative data from secondary sources, several charts were created to visually depict the total trade disparity between the United States and other regions, in terms of the trade factors included in this study. Figure 29 presents the analysis results of the U.S. along with the other countries from the study when data were available. The score for the factors are represented as 1 through 10, where 1 is considered most competitive and 10 is considered least competitive. These assumptions are made because all categories were factored, not as costs, but as a competitiveness scores. Some of the results came from survey data, while others were calculated relative to the United States. The total

score shown is the sum of the ratings on each of the seven trade factors. The higher the total score, the less competitive and vice versa.

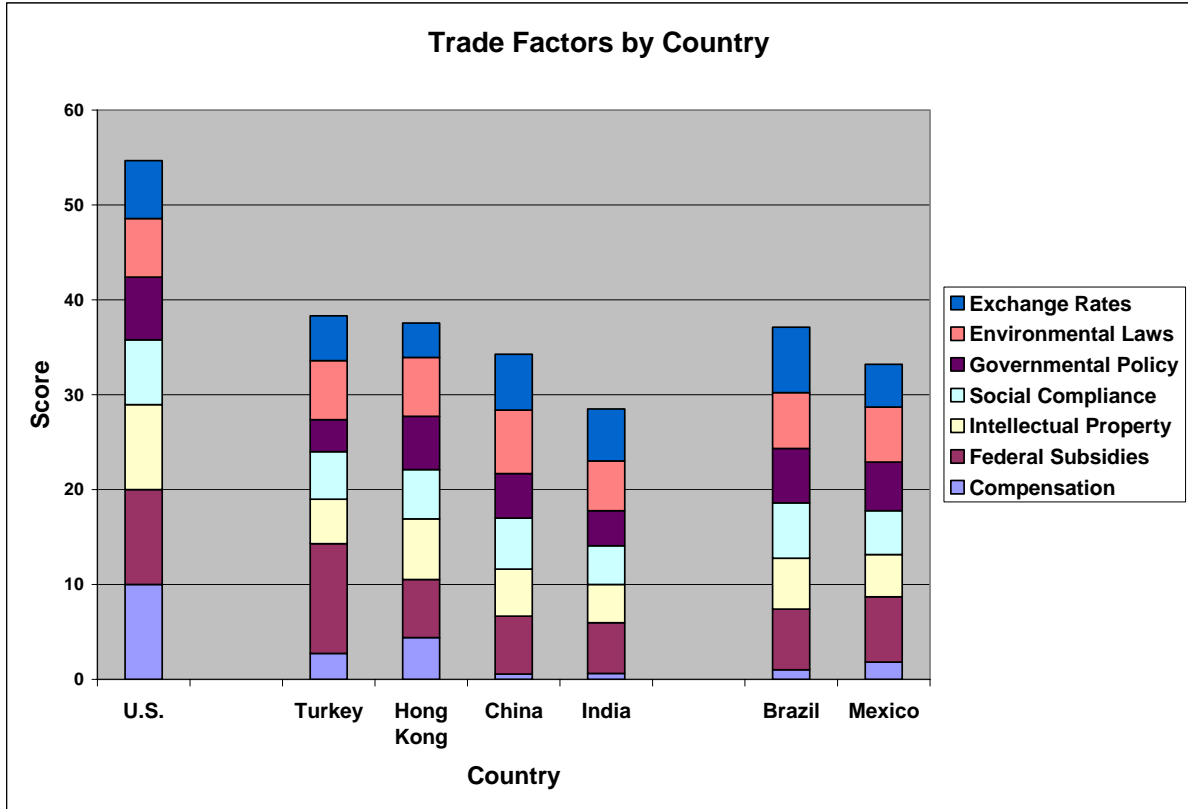


**Figure 29: Collective Effect of Governmental Trade Factors on Competitiveness by Global Region**

Source: Data compiled from IMD Competitiveness Yearbook 2002, United Nations Development Programme ([www.undp.org](http://www.undp.org)) "Human Development Indicators" (2003), Stat-USA's 2003 Country Commercial Guides, and International Labor Organization 2003 ([www.ilo.org](http://www.ilo.org)).

It is obvious that the United States is at a competitive disadvantage compared to Asia and Central/Latin America. Although some of the segments of the bar appear equal, collectively the factors put the U.S. at a sizable disadvantage against its Asian and Latin competitors. This would support the historical data from each of the markets in this research as U.S. production decreases, and offshore imports increase.





**Figure 30: Collective Effect of Governmental Trade Factors on Competitiveness by Country**

Source: Data compiled from IMD Competitiveness Yearbook 2002, United Nations Development Programme ([www.undp.org](http://www.undp.org)) "Human Development Indicators" (2003), Stat-USA's 2003 Country Commercial Guides, and International Labor Organization 2003 ([www.ilo.org](http://www.ilo.org)).

Similar to the previous chart, Figure 30 results indicate that the U.S. is less competitive due to the trade factors researched. Hong Kong, although considered part of China, tends to be less competitive due to compensation levels. India is shown as more competitive than China, but it is important to note that companies base strategic decisions on more than just these trade factors. Logistics, infrastructure, and various performance measures are included in major sourcing decisions along with these factors. It is important for companies to understand the

trade disadvantages involved in their respective markets in order to optimize their supply chains and cost structures.

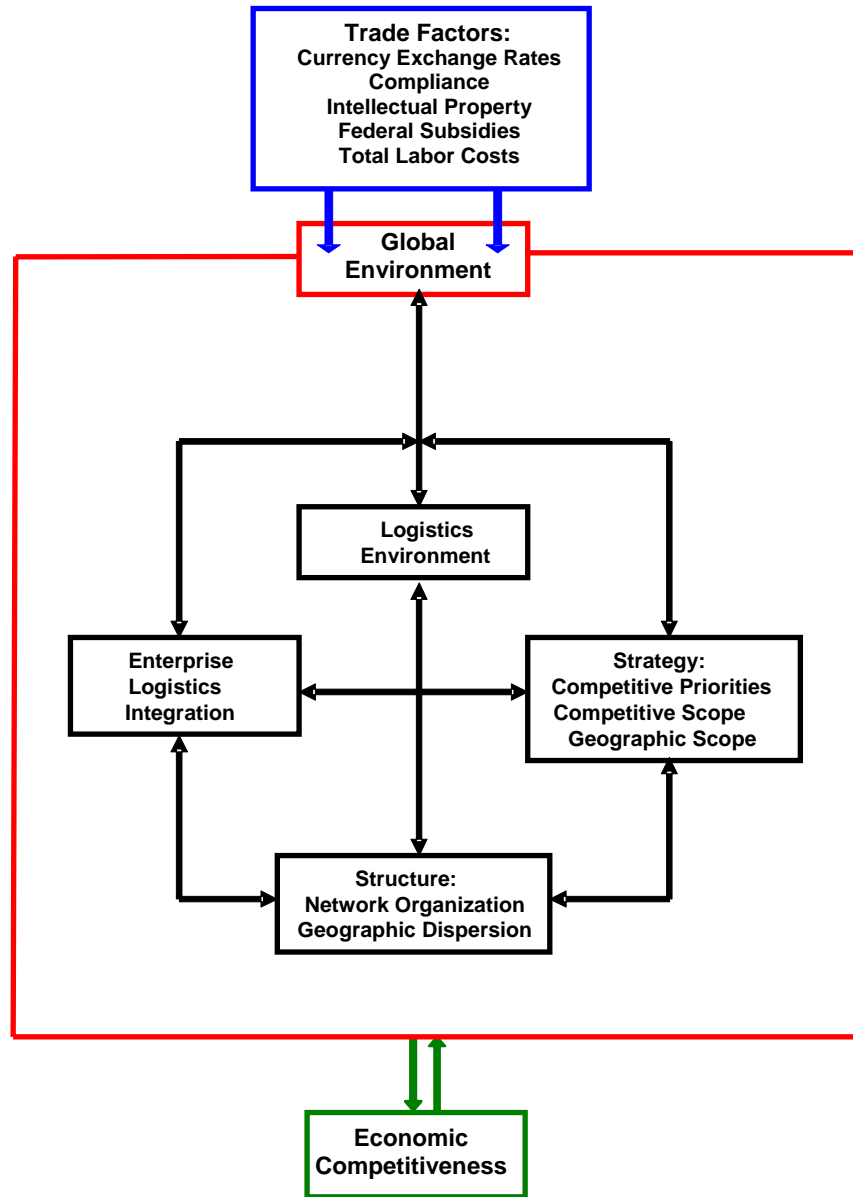
### **Adapted Conceptual Model from Research**

The conceptual model described in Chapter I of the study provided good direction for the research. Upon completion of this research study, the model was adapted to account for the five trade factors that impact the economic competitiveness of international textile and apparel industry. Figure 31 illustrates the adapted model for the textile and apparel industry. The trade factors are direct inputs into the global environment. Collectively, they impact the global environment. The global environment, which encompasses logistics, strategy, and structure has direct correlation with a company's ability to reach economic competitiveness in its markets.

As industry trends indicate, textile and apparel markets have become more global with increasing competition. U.S. companies have adjusted their strategies to be more competitive in the global environment. The trade factors have more of an impact as competitiveness increases.

The five factors analyzed in this study were identified in the Phase I results. After Phase II of the study, a couple of factors were amended to more accurately represent the inputs into the global environment. First, compliance is most generally associated as an international trade factor, containing both social and environmental standards. Rather than separating employee benefit plans as an independent factor, total labor costs replace them in the adapted model. Total labor costs are a much more significant factor, including employee benefits, than just benefits alone.

Once again, the five factors have a significant affect, collectively, on a company's competitiveness in global markets.



**Figure 31: Adapted Conceptual Model**

Source: Adapted from "Logistics, strategy and structure; A conceptual framework" - Stock,

Greis, & Kasarda, 1999

**CHAPTER V**

## **CONCLUSIONS, IMPLICATIONS, & RESULTS**

### **Summary**

The purposes of the study were to examine the impact of trade factors on U.S. textile and apparel companies, and to provide an industry perspective on how to improve competitiveness within the global bottom weight apparel and home textile markets.

The study was done following a sequential, two-phase mixed methods approach. Phase I of the study focused on secondary data from various government and industry resources. After Phase I, the sample selection process was finalized. The sample contained companies from the bottom weights and home textiles markets.

Phase II of the research collected primary data through in-depth interviews with company executives. Each market sample contained U.S. manufacturers, U.S./Offshore manufacturers, and U.S. Retailers. In order to include important data from other industry leaders knowledgeable on the research topics, an "Other" category was established that included a global sourcing agent, an offshore apparel manufacturer, and a direct supplier to manufacturers and retailers. The sample contained 18 companies. The company selection was structured in order to ensure strong data were collected. Companies were selected according to sales, growth rate, distribution strategy, and product mix.

From the 18 companies, there were 32 respondents throughout the in-depth interview process. These respondents had an average 24.8 years of experience in

the textile and apparel industry. The executives were extremely candid with their information, as all confidentiality was guaranteed by the research team.

The in-depth interviews were conducted by three researchers studying the same sample companies. This study is separate, but contingent upon the other two studies. The interview instrument can be located in Appendix B, and includes all three sections of the interview questionnaire. The interviews were done as a group meeting to ensure optimization of time and resources for the executives and researchers. Section three of the interview guided the data collection for this study. The other two sections focused on 1) Supply chain structures and 2) Logistics Cost Structures. All three studies focused on economic competitiveness in the global bottom weight and bed/bath markets. The other two studies are included in the reference section (L. Cesca, 2005, and H. Nowell, 2005).

The five trade factors analyzed in this study were identified as disparities affecting the level playing field in global textile and apparel markets. The secondary data provided a basis for the interview instrument regarding the trade factors. The interviews provided specific strategies and opinions related to the trade factors as they affected companies from each segment of the supply chain.

After Phase I and II were complete, additional secondary research helped explain how the two phases of research fit together. The simultaneous analysis was necessary to clearly identify the total trade disparity that the U.S. has compared to the leading countries in the bottom weight and bed/bath markets. The Summary of Results provides a concise explanation of the simultaneous analysis.

## Summary of Results

### **RQ1: What are the currency issues that exist in international trade?**

The key currency issues from the literature were 1) exchange rates, and 2) currency manipulation. Currency exchange rates are determined by a country's government. Exchange rates affect the value of a currency against other countries' currencies, and can create an advantage or disadvantage during international trade.

Currency manipulation is the second key theme from the literature. The manipulation is a method some countries take to reduce the chance of a currency crisis or provide an export advantage by making their products "cheaper" in the market. The governments of the developing countries in Asia often claim that the currencies must be tightly controlled and allowed little flexibility to help maintain a stable economy. The officials are trying to stave off another incident similar to the one in the late 1990's when many Asian currencies dropped dramatically. Many countries in East and Southeast Asia have currencies "pegged" to or tightly controlled against the "floating" currencies of market economies, namely the US Dollar. By not allowing currency to float according to markets, it could create a distinct trade advantage for the exporting country.

Eighty percent of the companies interviewed in Phase II reported having only been impacted to a small degree or not at all because they try to conduct all business in US Dollars. The executives only felt a negative impact as other currencies strengthened compared to the U.S. dollar.

## **RQ2: What are the impacts of environmental and social compliance on textile and apparel companies?**

The two key issues described in the literature regarding compliance are listed below.

- Are environmental regulations beneficial or detrimental to competitiveness?
- Social issues in developing countries.

1) Environmental compliance was often included in the general compliance audits conducted in offshore locations. Environmental compliance has more of a monetary impact on domestic manufacturing, where stricter policies and enforcement cost companies around \$0.88 per hour worked to remain compliant. This is a growing issue overseas and will cost companies more and more in offshore locations. U.S. companies spend approximately 19% of the total overhead costs imposed by government towards environmental regulations. Eight of the world's ten most polluted cities are in China, who has spent up to eight percent of its total GDP towards correcting environmental issues caused by manufacturing. Environmental regulations force industries to innovate and become more efficient, providing a competitive advantage. The same innovations and improved efficiencies are initially costly, creating a short-term competitive disadvantage.

2) Social compliance was important to every company that responded. It is costing offshore factories more and more money, but is deemed necessary by the vast majority of those involved. Social issues have become more public as trade liberalization evolved. The WTO included compliance literature for its members that forces countries to include this as a priority. Countries that do not comply could lose the advantage of quota-free trade between WTO members.

The Worldwide Responsible Apparel Production (WRAP) group was initiated by the textile industry to ensure proper measures are taken to reduce or prevent sweatshop labor situations. As of March 2005, WRAP has over 1,339 participating factories in 81 countries. Of those, 578 factories are certified with many others waiting to receive certification. WRAP is an independent certification program for factories, and is founded on 12 core principles regarding workers' rights and workplace conditions.

**RQ3: What is the impact of intellectual property theft in global markets?**

The two emerging themes for IP theft described in the literature are 1) whether or not IP was adequately protected, and 2) whether or not government policy was transparent or not. These two themes are somewhat related, because there is a relationship between government policy and the level of IP protection. Transparent policy is defined as being multi-dimensional and includes the clarification of policy goals, of policy procedures, and the timeliness in reporting policy decisions. These factors are key parts of maintaining IP protection and the more transparent the policies are, the easier it is for governments to enforce them.

From the manufacturing companies interviewed, 78% had been impacted by IP theft. The biggest impact was acknowledged by the apparel manufacturers with brands or licensed products. Bed/bath companies were not impacted as much due to the nature of their products. The majority of IP problems occurred offshore, where government law is often less transparent and prosecution is infrequent. Many foreign investors were discouraged by the threat of IP infringement, primarily in Asia.



**RQ4: How has federal government support affected the textile and apparel industry?**

Federal government support was used in the U.S. to temporarily support particular industries from dramatic market shifts. Offshore countries, especially China, implement support plans that are geared towards exporting goods. These plans often encourage foreign investors to build manufacturing in order to take advantage of offshore facilities for low cost production, and in turn ship the majority of the products to other markets, including the United States. The executives generally had no in-depth responses regarding specific federal support, and often referred to an individual situation that impacted them.

Duties and tariffs are also factors to consider when conducting business offshore. Duties and tariffs are government taxes on imports or exports on goods. Each country has its own laws regarding import tariffs, as well as other duties which are usually paid as a percentage of the value of shipments. The United States applies a somewhat low rate of tariff on imported goods making its markets more accessible to foreign products. Other countries with higher import tariffs create a beneficial situation for their own domestic markets because the cost to export to those countries will increase due to the higher tariff rate. This is a method used by countries to protect particular markets that their governments feel could be threatened by lower cost imports.

Government interaction has become more of a political tool with international trade as global terrorism poses more of a threat to the United States. The U.S.

government uses its trade power to encourage other countries to be friendly. Thus, it has political and economical impacts on the textile and apparel industry.

**RQ5: What impact does employee benefits plans have on companies?**

Employee benefits vary greatly from country to country. U.S. companies pay around \$2.66 per hour worked, or 21% of total compensation, towards benefit plans. Chinese companies generally pay \$0.06 per hour worked, or 8% of total compensation, towards benefit plans. The larger disparity lies in the hourly wages of associates. American manufacturers pay \$12.69 per hour, compared to \$0.69 per hour in China. The costs of employee benefits also present a wide gap by geographic region. American companies pay \$2.61 per hour towards benefits, compared to \$0.06 and \$0.37 per hour in Asia and Central/South America, respectively. Benefit plans are only a small part of total cost, and do not individually create a competitive advantage or disadvantage.

**RQ6: Which countries are the best offshore trade partners in bed/bath and bottom weights textiles?**

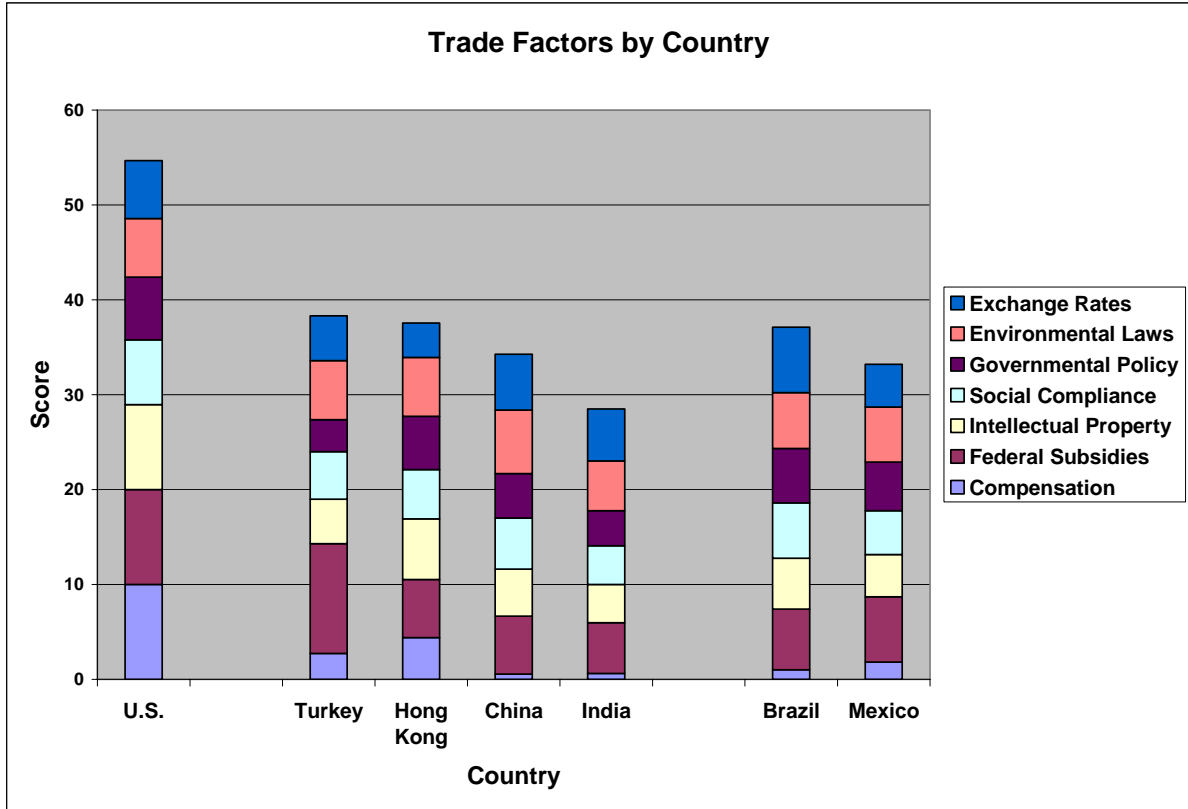
Several countries have specific core competencies that add value to certain products. The countries that own the market share for bottom weight products are not necessarily the same countries that dominate bed/bath production. Table 49 lists the leading countries for each market, according to the Chapter III Methodology.

**Table 49: Leading Countries in the Bottom Weights and Bed/bath Markets**

<b>Bottom Weights</b>	<b>Bed/bath</b>
Mexico	Pakistan
Dominican Rep.	China
Hong Kong	Turkey
Honduras	India
Guatemala	Brazil

China, India, and Pakistan are the clear offshore winners regarding textiles and apparel.

- China is used by 87% of the sample companies due to the following:
  - an abundance of low cost labor (population is 1.3 billion)
  - excellent infrastructure: ports, roads, and communication technology
  - willingness to do business, and a very customer-driven attitude
  - variety and volume of products in the region (raw material availability)
  - ability to copy or match samples provided by the customer
- India is used by 60% of the sample companies due to the following:
  - An abundance of low cost labor (population is 1.1 billion)
  - Very design oriented and creative people
  - Most business people speak English (no language barrier)
- Pakistan is used by 60% of the sample companies due to the following:
  - Low cost labor
  - Abundant supply of cotton and cotton products
  - Investments have been made to modernize the textile industry
- Mexico is used by 100% of the bottom weight sample companies due to the following:
  - Proximity to the U.S.
  - Beneficial trade agreements (NAFTA)
  - Developed textile infrastructure with cut and sew expertise



**Figure 32: Competitiveness of Countries due to Governmental Trade Factors**

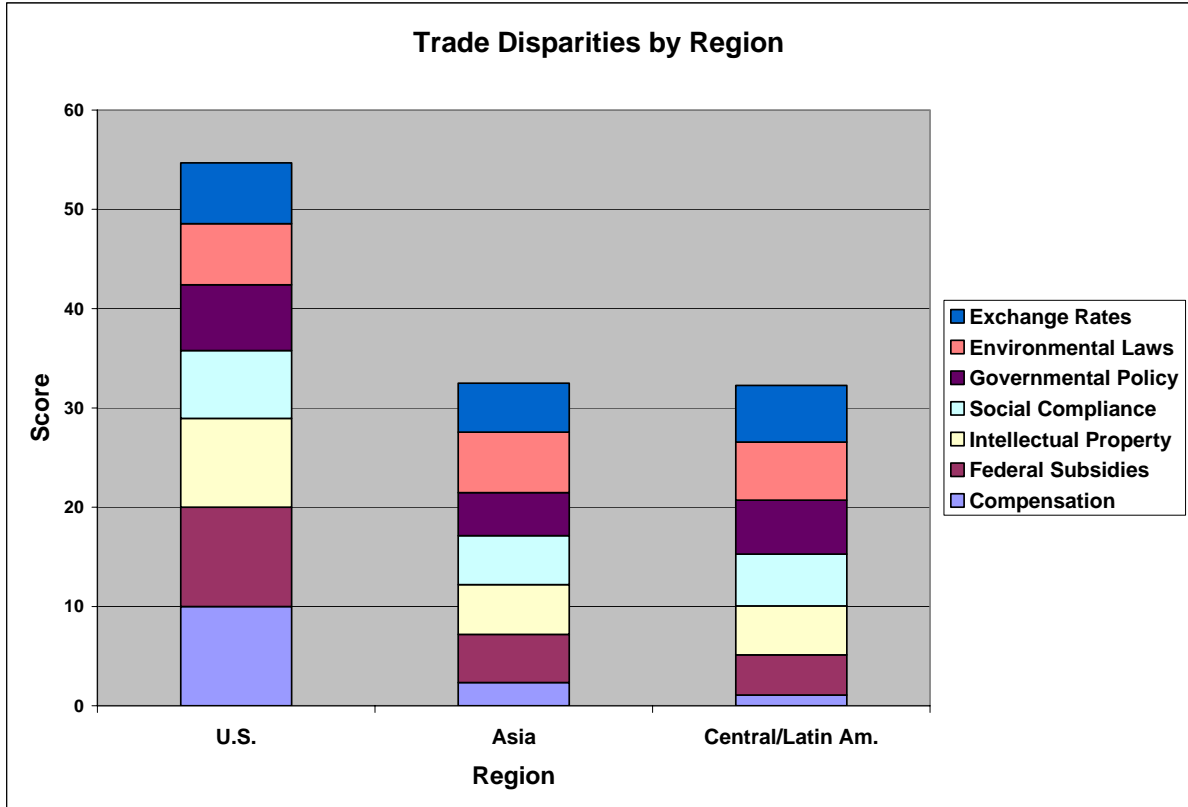
Source: Data compiled from IMD Competitiveness Yearbook 2002, United Nations Development Programme ([www.undp.org](http://www.undp.org)) "Human Development Indicators" (2003), Stat-USA's 2003 Country Commercial Guides, and International Labor Organization 2003 ([www.ilo.org](http://www.ilo.org)).

Figure 32 illustrates the competitiveness of the countries from the study, in terms of governmental trade factors where the higher score represents a less competitive situation. The results indicate that governmental trade factors put the U.S. at a competitive disadvantage versus the other leading countries in these two markets. These are not the only factors to consider, but they provide a basis for understanding a part of the global trade environment inherent in these markets.

**RQ7: Which offshore regions support the bottom weight and bed/bath markets?**

1) Asia supports most textile products, including bottom weight and bed/bath products. The distance creates a disadvantage, but many fashion products are made in Asia if there is no need for replenishment. The total cost benefit draws many manufacturers to the region. The bed/bath companies are drawn to Asia because the market has fewer replenishment needs. Asia was regarded as an optimal place to produce short-run, flexible manufacturing opportunities. Of the companies interviewed in the bed/bath market, 83% do the majority of their sourcing in Asia.

2) Central and Latin America are known for their cut and sew capabilities. The textile and apparel industry is less-developed in this region compared to some areas in Asia, but trade benefits attract many manufacturers. The proximity to market advantage, which is more important to the apparel market, provides many opportunities for retailers in this region. 67% of the bottom weight companies interviewed utilized Central and Latin America for the majority of their sourcing. Shorter supply chains tie up fewer goods and allow the retailers to reduce the number of markdowns caused by products going out of style. This region is also beneficial to the bed/bath market for long-run, basic goods for replenishment purposes.



**Figure 33: Competitiveness of Countries due to Governmental Trade Factors**

Source: Data compiled from IMD Competitiveness Yearbook 2002, United Nations Development Programme ([www.undp.org](http://www.undp.org)) "Human Development Indicators" (2003), Stat-USA's 2003 Country Commercial Guides, and International Labor Organization 2003 ([www.ilo.org](http://www.ilo.org)).

Figure 33 was created using the same data as Figure 32, and shows the competitive relationship between the U.S. and the two regions that dominate these markets. Like the previous table, the higher score represents a less competitive environment due to the trade factors. Once again, the U.S. is at a competitive disadvantage to Asia and Central/South America, in terms of the governmental trade factors from this study.

## **Conclusions**

1. Currency exchange rates create an export advantage for many countries in Asia, but most U.S. companies are not affected because they try to conduct all business in US Dollars.
2. Compliance is an umbrella term that encompasses social and environmental issues regarding manufacturing locations. The disparity occurs in regions where there are standards, but there is a lack of enforcement.
3. Intellectual Property theft is a major problem overseas discouraging foreign investment, especially with branded or licensed apparel. As retailers purchase more brands and private labels, it is likely they will be impacted more and more by IP theft.
4. Political and economic interactions from the government affect the entire industry, and the U.S. uses its trade power to encourage others nations to be friendly. Tariffs provide an alternative to quotas to improve the competitiveness of domestic products and markets.
5. Employee benefit plans alone do not create a competitive disadvantage for domestic textile and apparel companies. A better comparison would investigate total cost of sourcing from a particular region.
6. China, India, and Pakistan are the three most commonly used countries for textiles and apparel. China is considered the best manufacturing location for offshore operations, generally speaking. Mexico is extremely

important to the bottom weights market, and continues to be utilized by all of the major bottom weight companies.

7. Central and Latin America provide a value to the textile and apparel industry due to its proximity to the U.S. market. Long-run, basic goods are often produced for replenishment purposes. Apparel producers have taken advantage of this region more than home textiles producers, due to the fluctuating and seasonal demand of apparel.
8. U.S. textile and apparel companies are at a competitive disadvantage with all of the leading countries in the bottom weight and bed/bath markets, in terms of the major governmental trade factors.
9. U.S. textile and apparel companies can capitalize on the benefits of being in the same country as U.S. retailers. (no trade barriers or import issues, as well as close proximity to increase service capabilities) Communication between the textile companies and the U.S. retailers is lacking and often causes an unnecessary barrier to conduct business. The barrier causes retailers to regularly source products offshore rather than consider the possibility of using a domestic company. Furthermore, the U.S. retailers feel that offshore companies have a customer-driven mentality and are willing to adapt more easily than U.S. textile companies.
10. The conceptual framework provided good direction for the research, but was further adapted to include international trade factors as inputs into the encompassing global environment.



11. The sample was extremely strong because of a well-structured selection process and methodology. The sample including 18 major companies. From those companies, 32 high level respondents (with 24.8 years experience on average) were very candid with their information allowing in-depth understanding of their strategies during face-to-face interviews.

### **Implications**

1. Home textiles and apparel have similar domestic trends, but different global trends regarding manufacturing location.
2. Total cost should be the basis for sourcing decisions instead of the first cost usually associated with labor.
3. CAFTA would be beneficial to the U.S. textile industry because proximity to the U.S. market could enhance the Western hemisphere's competitiveness against Asia.
4. U.S. companies should focus on providing a value to the U.S. retailers, in the form of speed to market opportunities, niche products, innovation, or replenishment capabilities.

### **Recommendations**

1. Future studies could focus on the niche product opportunities within the U.S. textile and apparel market. A study could analyze the value needed by the retailer coupled with the capability and benefit of providing this product close to the market.

2. Further investigation into the complete labor cost structure of the leading countries in the bottom weight and bed/bath market would be beneficial. Labor costs, costs of living, and inflation are keys to understanding true labor costs in developing countries.
3. Further studies regarding sourcing opportunities for bed/bath products in Central and Latin America should be considered. The apparel market already has a large presence in the region, and home textile companies could benefit from some of the same speed to market opportunities.
4. A future study should focus on the impact of quota elimination on Intellectual Property theft. Analysis from various regions could help companies understand the dangers of manufacturing branded or licensed products in certain regions.
5. Further studies should form a total cost model for offshore sourcing. A total cost model would help companies avoid chasing cheap labor and realize more bottom line gains.
6. Another study should analyze the threat of disruptions to the supply chain by sourcing offshore. Although total cost models may indicate that offshore locations provide the best opportunity, various other supply chain disruptions can quickly take away from the total cost benefit.

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#### **Organizations/Government Websites:**

OTEXA – [www.otexa.ita.doc.gov](http://www.otexa.ita.doc.gov)

AYSA – [www.aysa.org](http://www.aysa.org) (American Yarn Spinners' Association)

ATMI – [www.atmi.org](http://www.atmi.org)

AAFA – [www.americanapparel.org](http://www.americanapparel.org) (American Apparel and Footwear Association)

NRF – [www.nrf.com](http://www.nrf.com) (National Retail Federation)

Cotton, Inc. – [www.cottoninc.com](http://www.cottoninc.com)

INDA – [www.inda.org](http://www.inda.org) (Association of the Nonwoven Fabric Industry)

U.S. Department of Commerce – [www.doc.gov](http://www.doc.gov)

The World Factbook (CIA) – [www.odci.gov/cia/publications/nsolo/wfb-all.htm](http://www.odci.gov/cia/publications/nsolo/wfb-all.htm)

U.S. International Trade Commission – [www.usitc.gov](http://www.usitc.gov)

Bureau of Economic Analysis – [www.bea.doc.gov](http://www.bea.doc.gov)



International Business Network – [www.usal.com/~ibnet/](http://www.usal.com/~ibnet/)

International Labour Organization – [www.ilo.org](http://www.ilo.org) and <http://laborsta.ilo.org/>

Global Export Market Information System – [www.itaiep.doc.gov](http://www.itaiep.doc.gov)

STAT-USA Database: US and FCS Market Research Reports

World Trade Organization. [www.wto.org](http://www.wto.org).

## APPENDICES

### APPENDIX A - Initial Contact Letter for Phase II

Date

Contact Name

Company

Address

City, State Zip

Dear **Contact Name**:

<**Reference name, company**>, suggested that we contact you regarding our research study. Our study focuses on the textile supply chain and examines the issues of global trade, supply chain structures, performance measures, and logistics cost structures. Your company has been selected to participate in this study, and your confidentiality will be secured.

We will be conducting information interviews in your area the week \_\_\_\_. We would like to set up a time to meet with members of your company in the given areas during this week if possible. If an on-site visit is not possible during this week we would like to arrange a conference call when convenient. The questionnaire to be administered during the information interview is attached for your review. We will follow-up with you via email or by phone to discuss a possible meeting time. Please let us know when you will be available during this time or if there is someone else that we should contact.

Your cooperation is greatly appreciated. If you have any questions concerning the studies, please contact us via email at one of the addresses below.

Sincerely,

Hope Nowell  
Graduate Student  
NCSU/ITT  
[chnowell@unity.ncsu.edu](mailto:chnowell@unity.ncsu.edu)

Lynsey Cesca  
Graduate Student  
NCSU/ITT  
[lacesca@unity.ncsu.edu](mailto:lacesca@unity.ncsu.edu)

Michael Jones  
Graduate Student  
NCSU/ITT  
[majones6@unity.ncsu.edu](mailto:majones6@unity.ncsu.edu)

Nancy L. Cassill, Ph.D.  
Professor – NCSU  
[Nancy\\_Cassill@ncsu.edu](mailto:Nancy_Cassill@ncsu.edu)

George Hodge, Ph.D.  
Professor-NCSU  
[George\\_Hodge@ncsu.edu](mailto:George_Hodge@ncsu.edu)

Michelle Jones, Ph.D.  
Professor-NCSU  
[Michelle\\_Jones@ncsu.edu](mailto:Michelle_Jones@ncsu.edu)

## APPENDIX B - SURVEY INSTRUMENT

### Interview Topics

NCSU College of Textiles/ITT Fellows Research

Research Team: Lynsey Cesca, Hope Nowell, and Michael Jones

Topic: Global Competitiveness

#### ***Introduction***

Global competitiveness for the textile supply chain is a vital component of a company's strategy. The global supply chain is changing at an unprecedented rate. This study aims to analyze supply chain configurations and vendor performance, logistics cost structures, and international/governmental trade factors that impact companies' ability to be competitive. Information provided by companies will be used to provide a current, and even future, "picture" of the textile and apparel supply chain. With this knowledge, companies will be better equipped to make strategic business decisions on a global scale.

**(Note: Identification of company information will NOT be included in the final thesis project; the researchers will, however, agree to provide your company with a final copy of the thesis).**

#### ***Section I***

1. Where do you see global textile supply chains going? Why?
2. What are the drivers of the global textile supply chain today? The future?
3. What are the advantages of doing business with China rather than other countries in this hemisphere?
4. What advantages do manufacturers in Asia have over U.S. manufacturers besides costs?
5. In your experience working with U.S. retailers, what criteria do you believe is most important to them when choosing a vendor?

6. How important are partnerships with the retailers to the manufacturers in Asia? Where do you see this going in the future?
7. From your experience, what sourcing strategies are preferred today U.S. retailers and brand marketers?

**Section II**

1. When looking at the cost structure associated with the sourcing of textile and/or apparel products, what percent would you say is dedicated to their logistics costs?
2. In your experience, when sourcing to various areas of the world, does the cost of logistics change by region? For example, how do the logistics costs change when sourcing in Asia as compared to South America?
3. When looking at logistics cost structure for the general sourcing of textile & apparel products, what percent is allocated to the following areas:

	Textile	Apparel
i. Administration	_____	_____
ii. Customs Charges	_____	_____
iii. Handling & Packaging	_____	_____
iv. Inventory Holding	_____	_____
v. Risk & Damage	_____	_____
vi. Transportation	_____	_____
vii. Other	_____	_____

- a. Does the above cost allocation change when dealing with different regions, ie. Asia and South America? If so, how?
- b. Within the textile and apparel supply chain, has there been any unexpected logistics costs or issues that have arisen in the past 5 years? If so, how were they optimized or overcome?
4. A competitive advantage can be defined as resource-based, in that it emphasizes that a firm utilizes its **resources** and **capabilities** to create competitive advantage that ultimately results in superior value creation. Based on that definition, are there different competitive advantage that Global manufacturing companies, US manufacturing companies, Sourcing agents and Retailers possess due to their logistics costing or logistics operations? If so, what are they?
  - a. How do you feel that optimization of logistics within the supply chain can create added value? Can this optimization be used to enhance performance or influence corporate strategy?

- b. Have you seen any models for investigation that different companies use when reviewing their logistics costs?

**Section III**

- 11. How do currency exchange rates affect your business?
- 12. Do exchange rates impact your decisions while investing overseas?
- 13. Has your company been impacted by IP theft?
  - a. Do you feel like it is a problem overseas?
- 14. What country is most favorable for you to include in your supply chain?
  - a. Why?
- 15. With your products, why would it benefit you to go overseas?
- 16. Do government laws limit your success in certain regions of the world?
- 17. What are the benefits of using Asia or Latin America in your supply chain model?
- 18. Which of the following countries have you been involved with, in terms of the product markets heading the column?

<b>Bed/Bath</b>		<b>Bottom Weights</b>	
<b>Pakistan</b>		<b>Mexico</b>	
<b>China</b>		<b>D.R.</b>	
<b>Turkey</b>		<b>Hong Kong</b>	
<b>India</b>		<b>Honduras</b>	
<b>Brazil</b>		<b>Guatemala</b>	

## APPENDIX C – MARKET ANALYSIS

Source for Figures C-1 through C-20: Cotton, Incorporated (2004)

Figure C-1: Bed-Bath Production in Pakistan

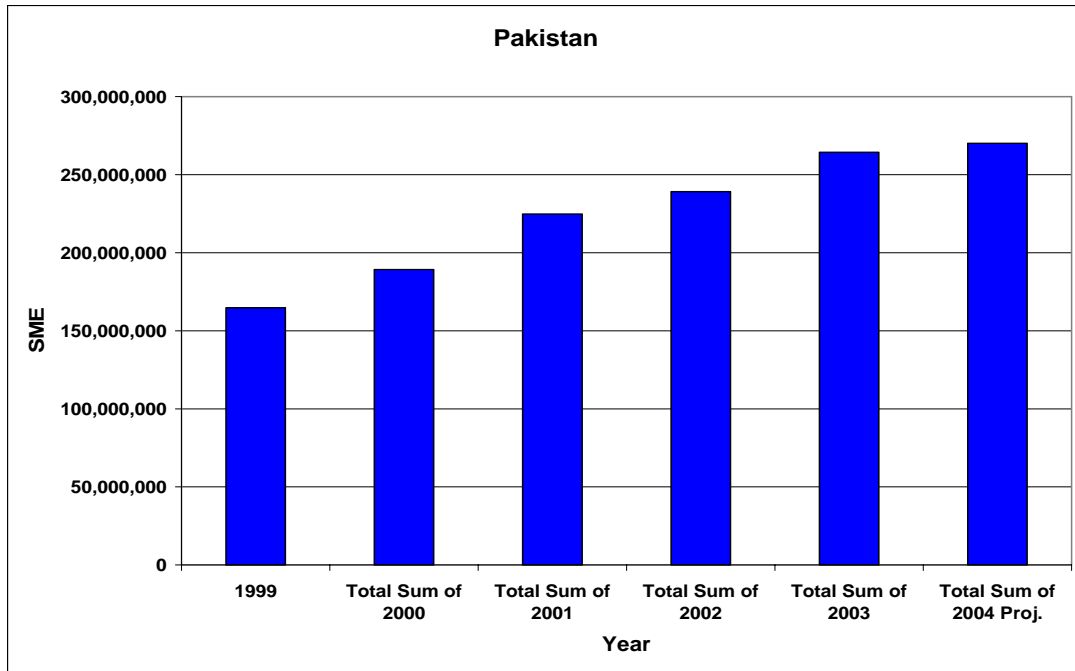
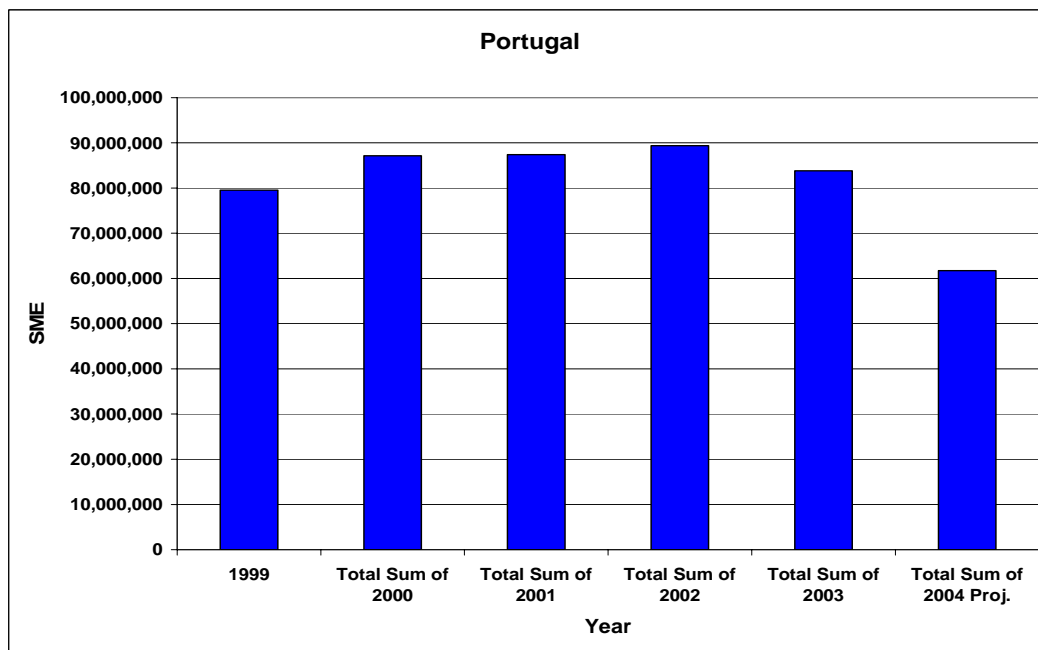
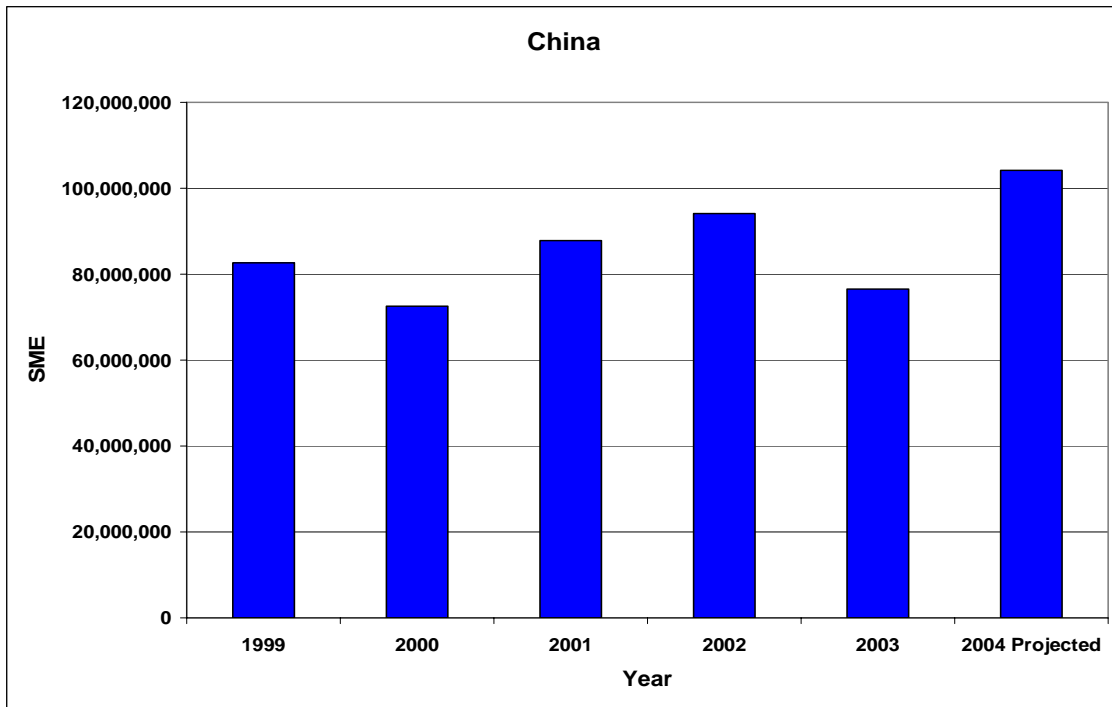


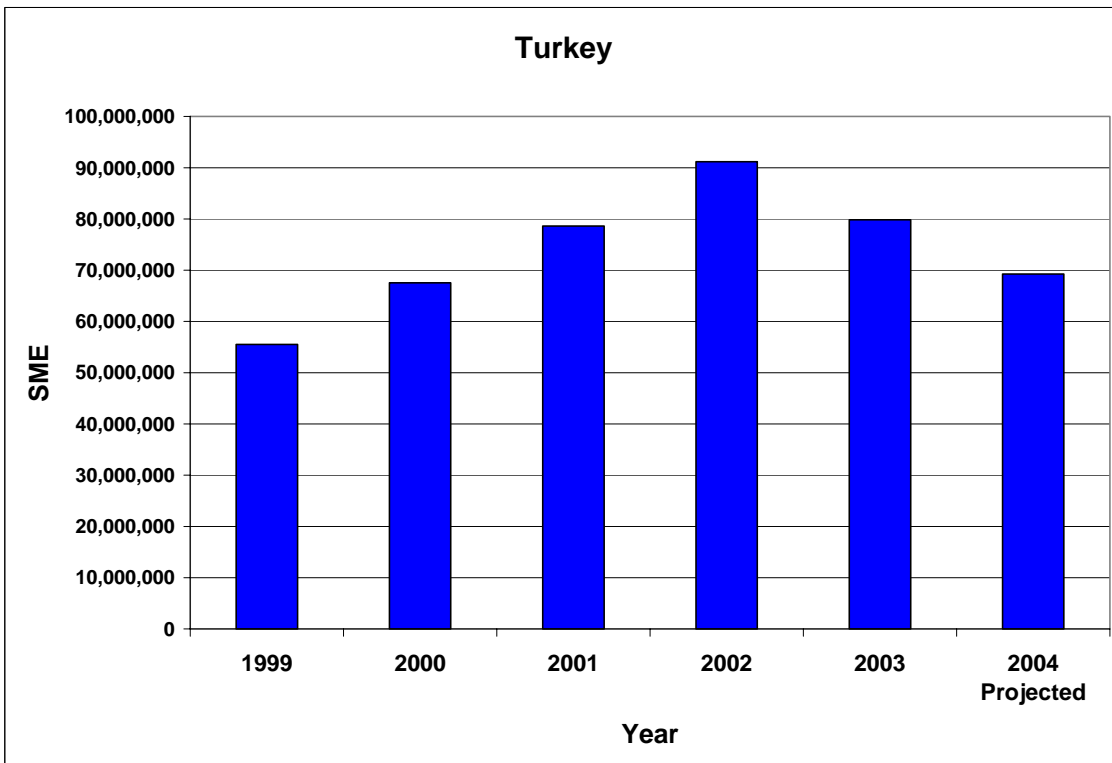
Figure C-2: Bed-Bath Production in Portugal



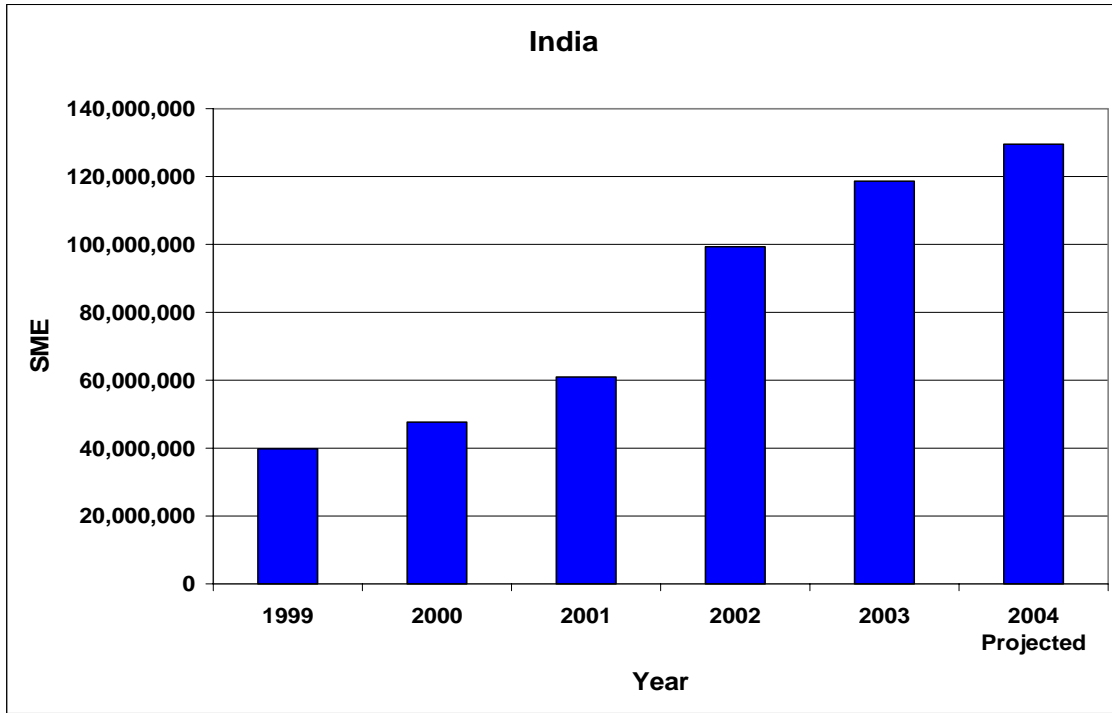
**Figure C-3: Bed-Bath Production in China**



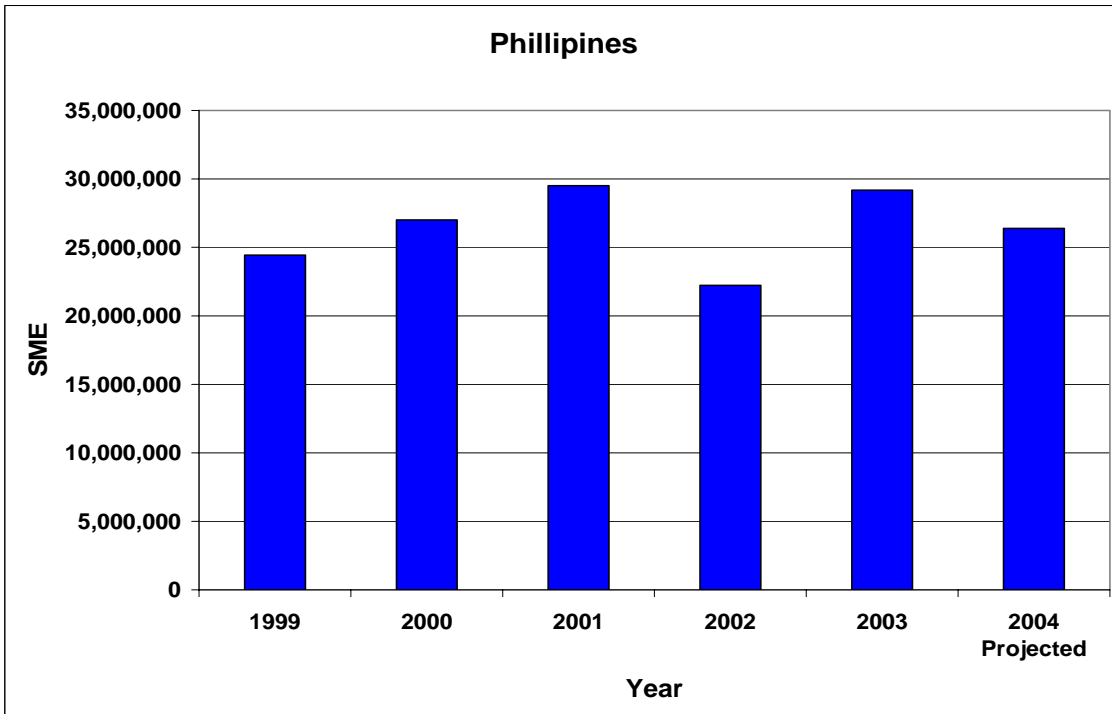
**Figure C-4: Bed-Bath Production in Turkey**



**Figure C-5: Bed-Bath Production in India**

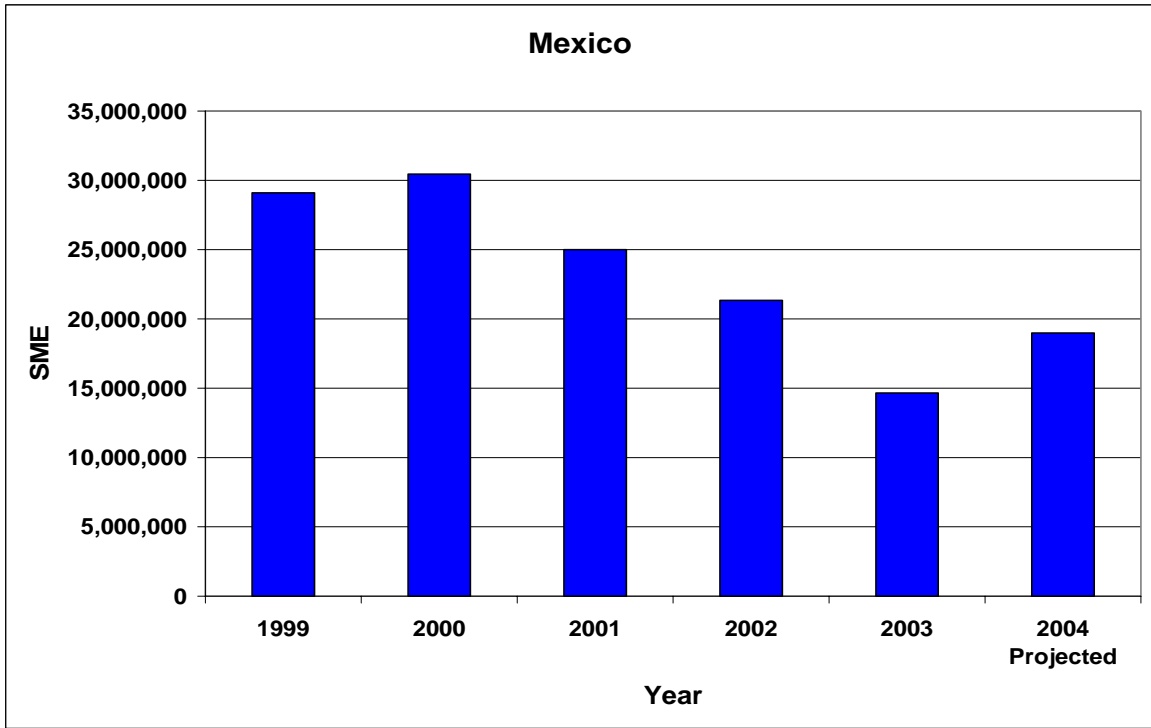


**Figure C-6: Bed-Bath Production in Phillipines**

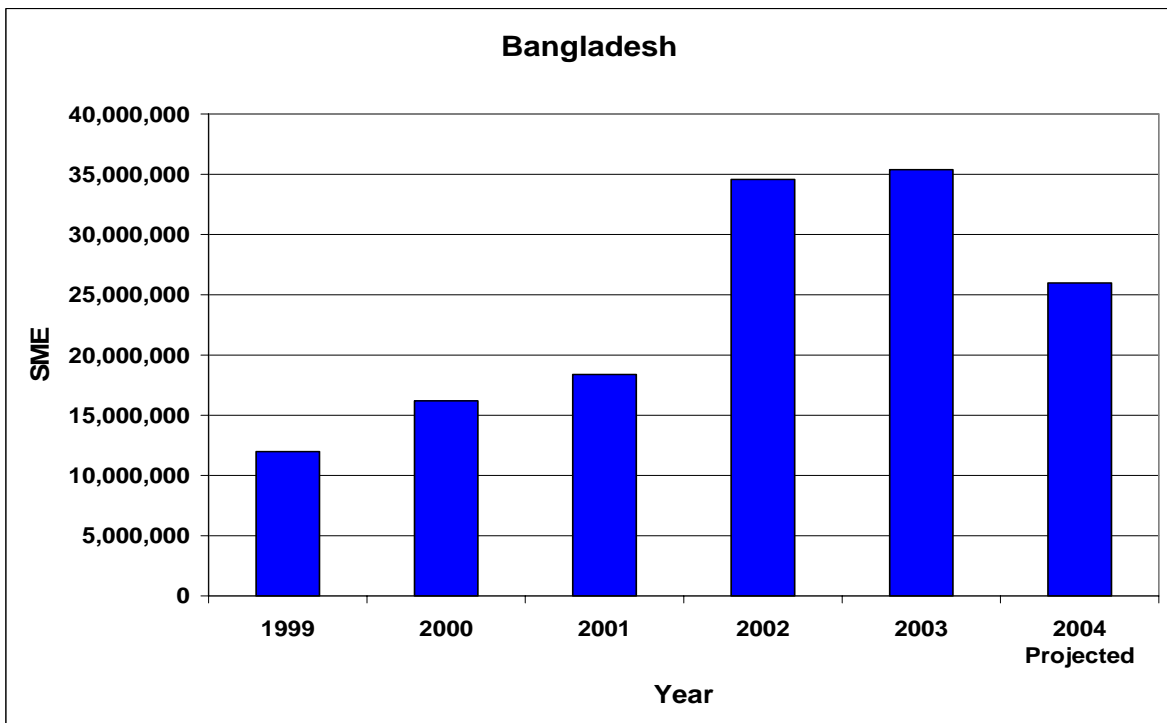




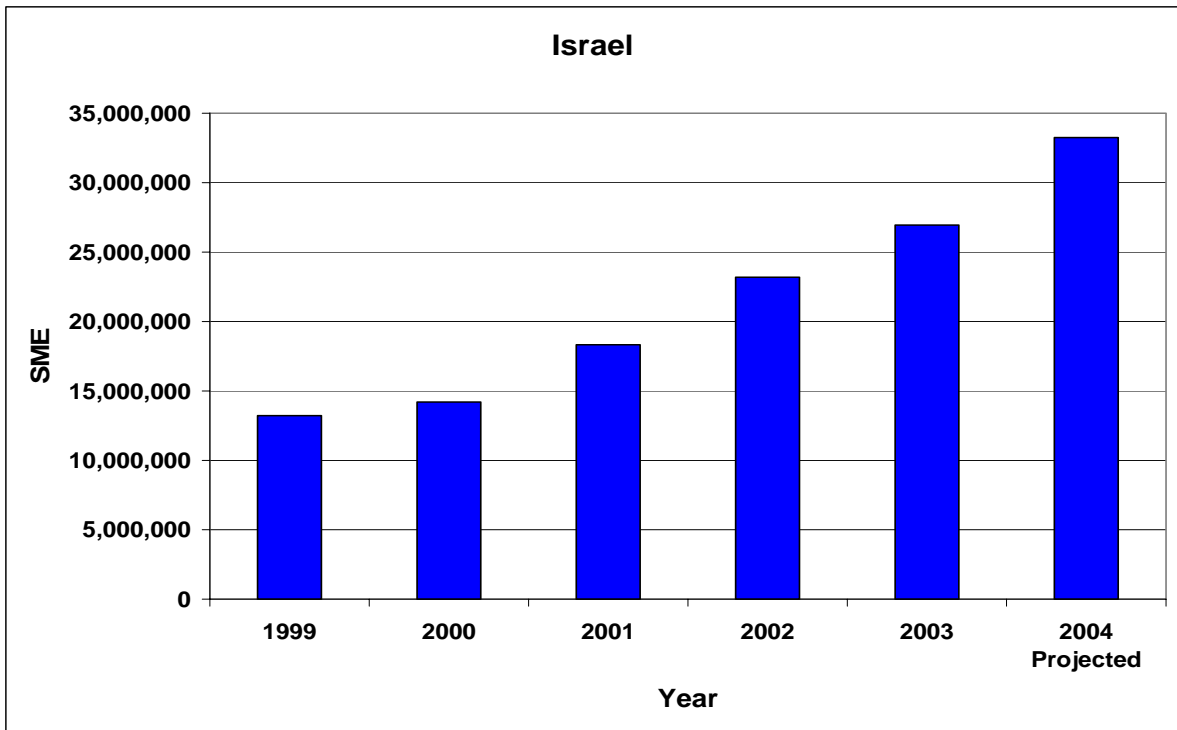
**Figure C-7: Bed-Bath Production in Mexico**



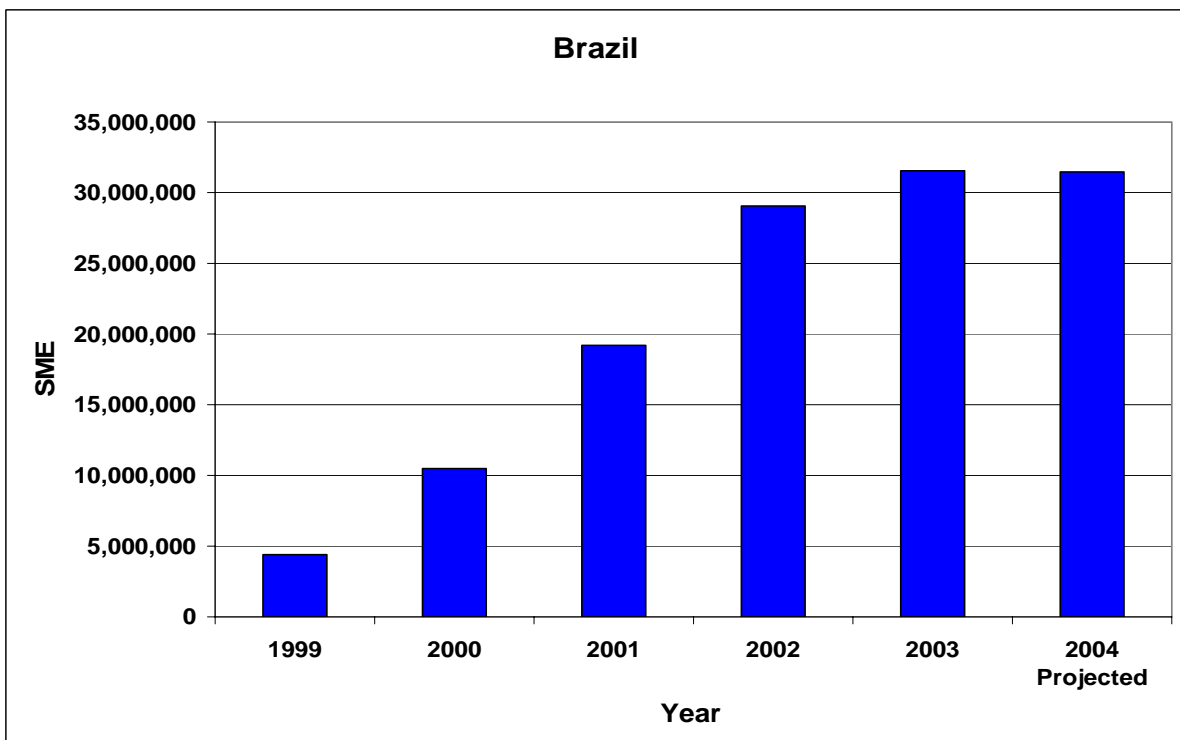
**Figure C-8: Bed-Bath Production in Bangladesh**



**Figure C-9: Bed-Bath Production in Israel**



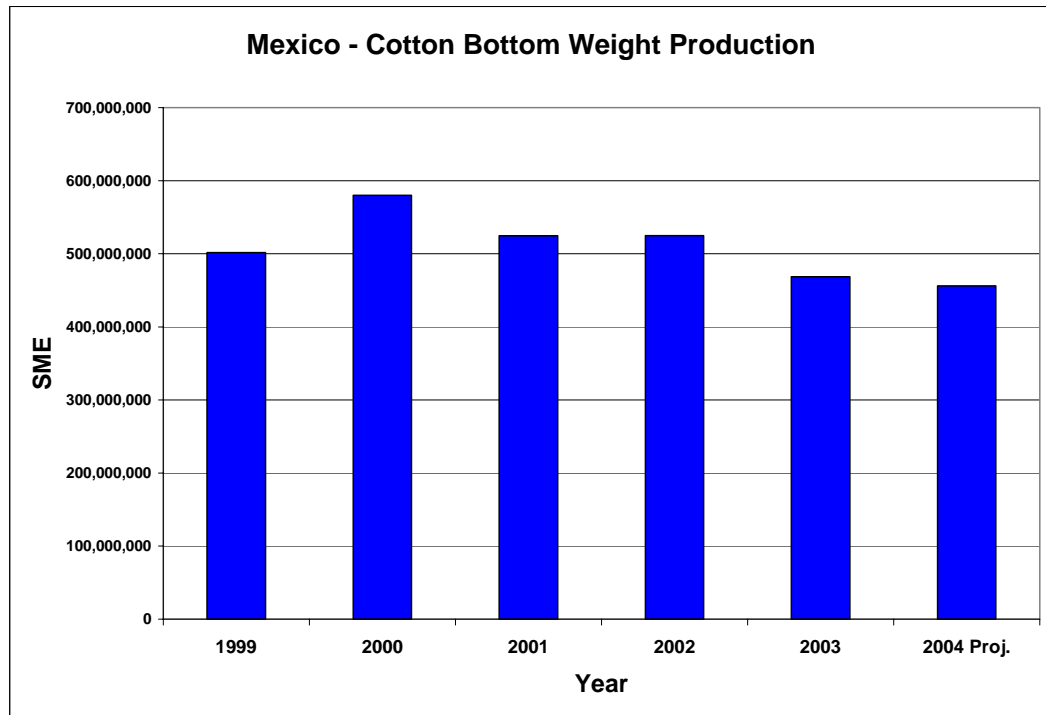
**Figure C-10: Bed-Bath Production in Brazil**



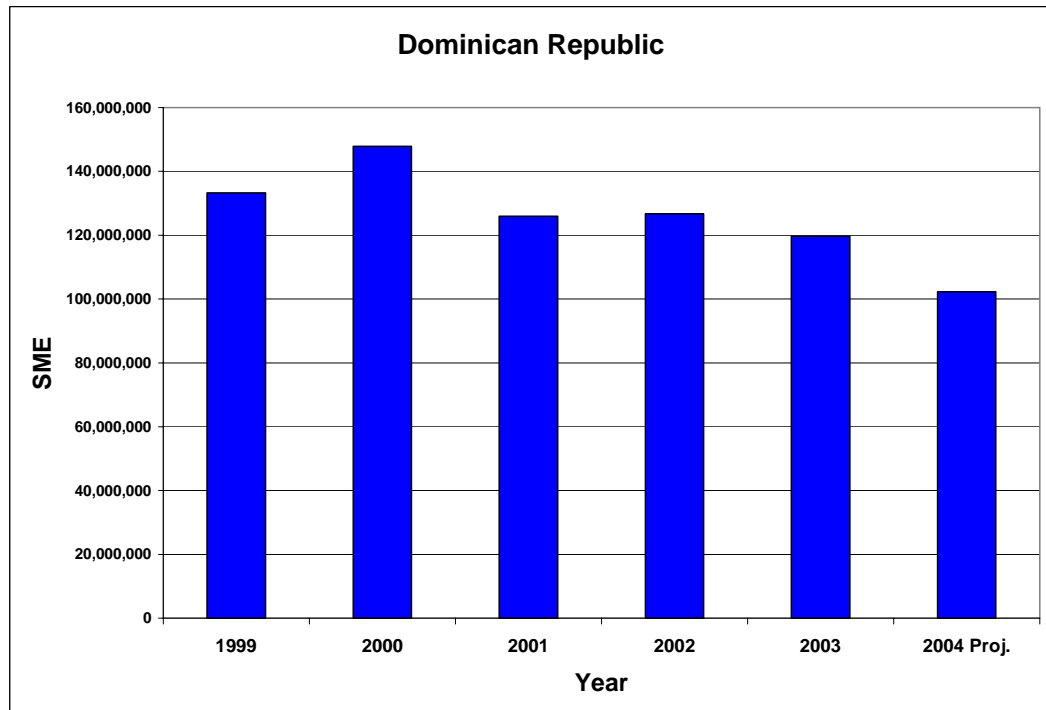
**Table C-1: U.S. Imports of Bed-Bath Products**

<b>U.S. Imports of Bed-Bath by Producer Company</b>		
	(in M\$)	
<b><u>India</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
Bombay Dyeing	\$71.7	\$82.0
Abhishek Industries	\$48.7	\$56.0
Welspun	\$39.0	\$45.0
<b><u>Pakistan</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
Nishat Mills	\$54.4	\$64.1
Afroze Textile	\$13.8	\$17.0
Luo Lai	\$0.0	\$3.0
Barkah Textile	\$1.0	\$1.8
<b><u>Brazil</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
Coteminas	\$45.0	\$54.9
<b><u>Turkey</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
Kucukcalik	\$26.7	\$20.1
Menderes Tekstil	\$18.0	\$21.0
<b><u>China</u></b>	<b><u>2003</u></b>	<b><u>2004</u></b>
Sunvim Hometextiles	\$0.0	\$13.1
Nanjing Meihua	\$4.5	\$6.7

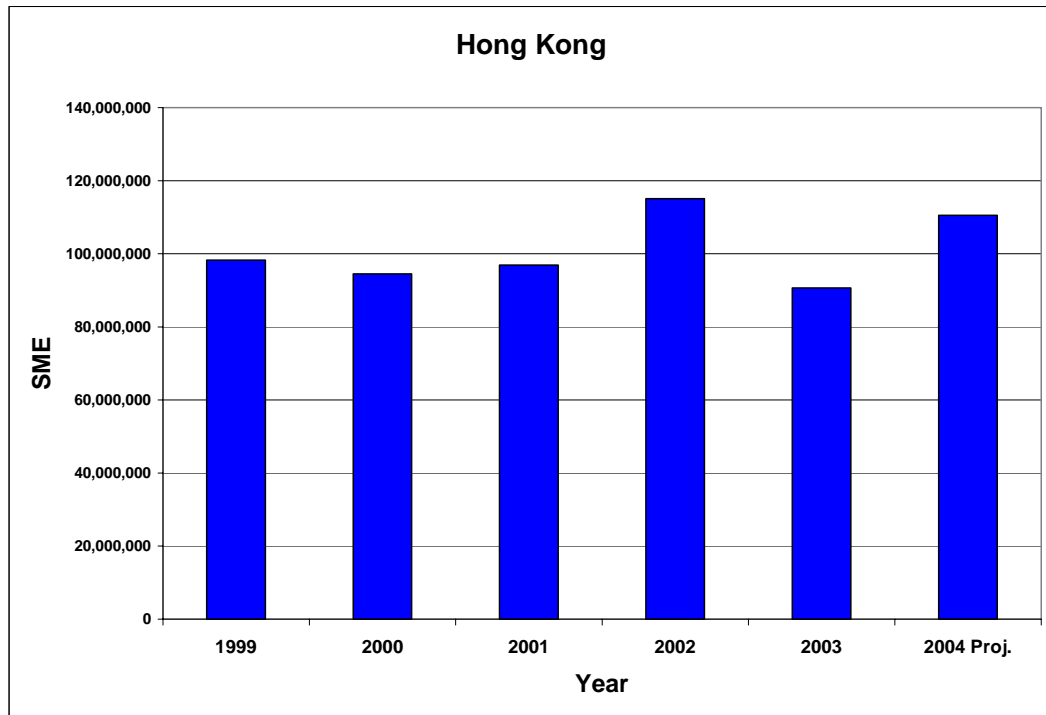
**Figure C-11: Bottom Weights Production in Mexico**



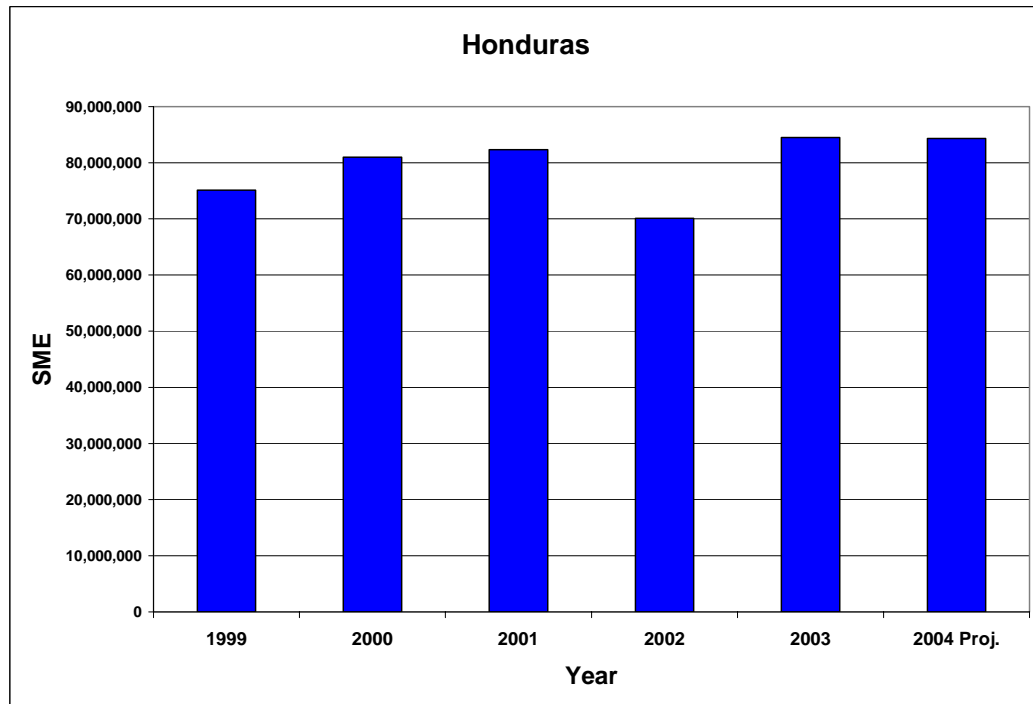
**Figure C-12: Bottom Weights Production in the D.R.**



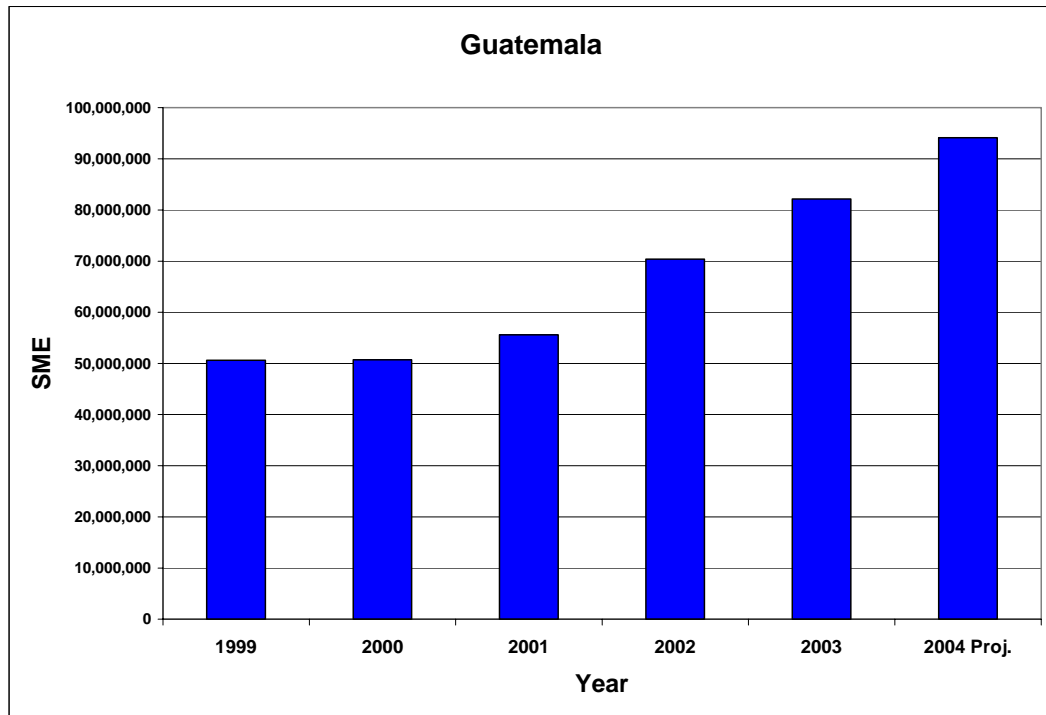
**Figure C-13: Bottom Weights Production in Hong Kong**



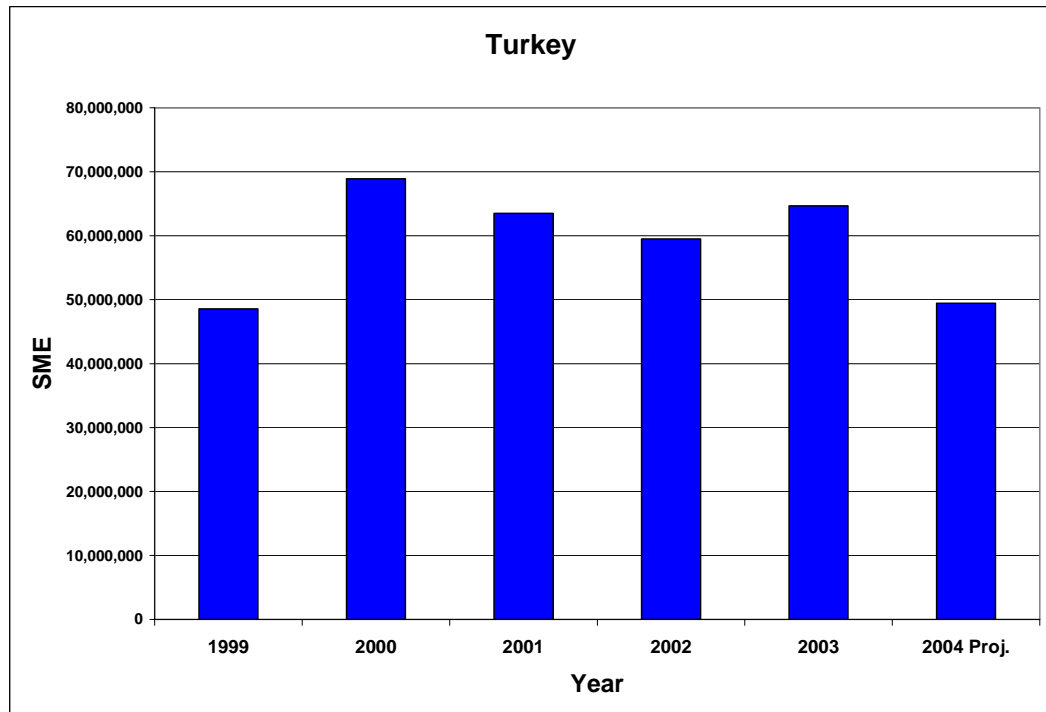
**Figure C-14: Bottom Weights Production in Honduras**



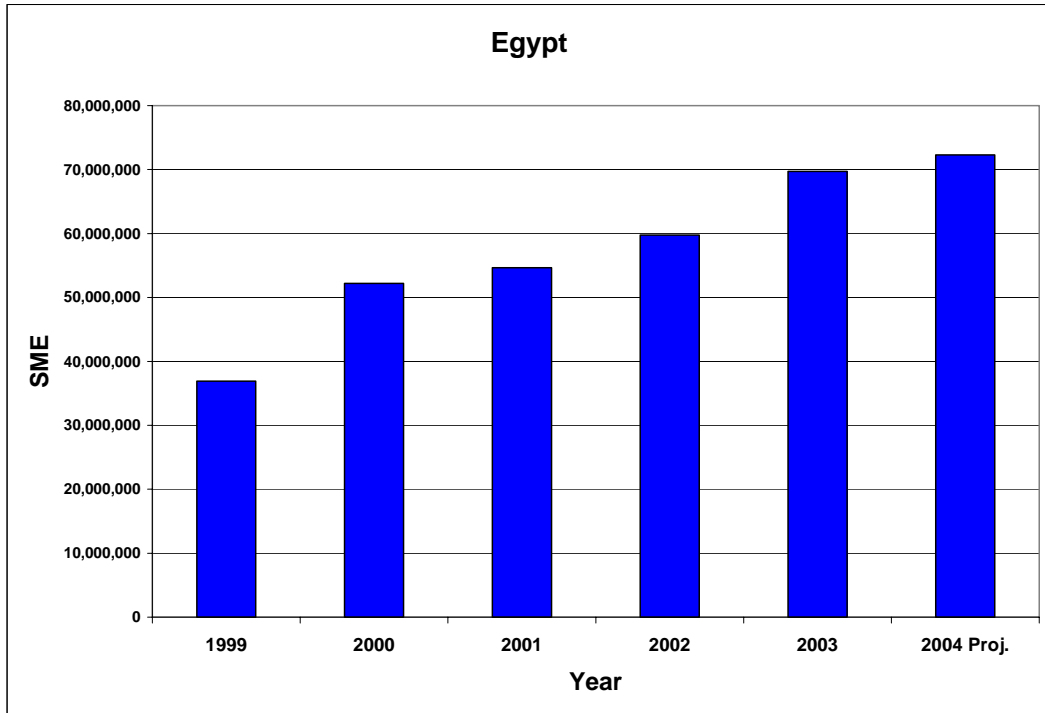
**Figure C-15: Bottom Weights Production in Guatemala**



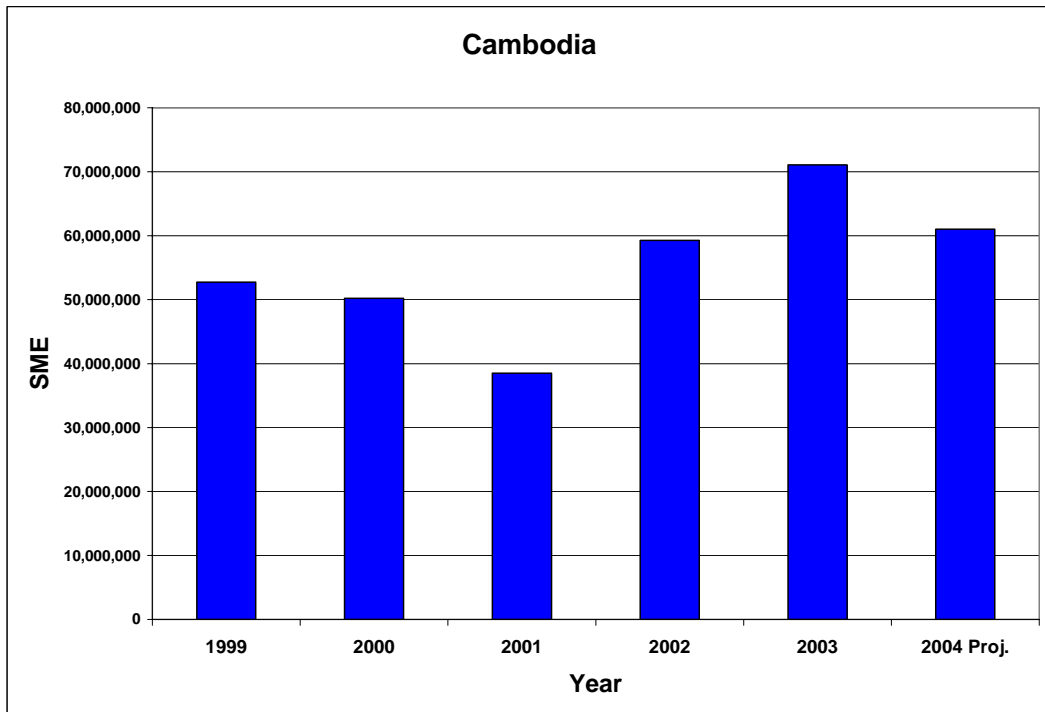
**Figure C-16: Bottom Weights Production in Turkey**



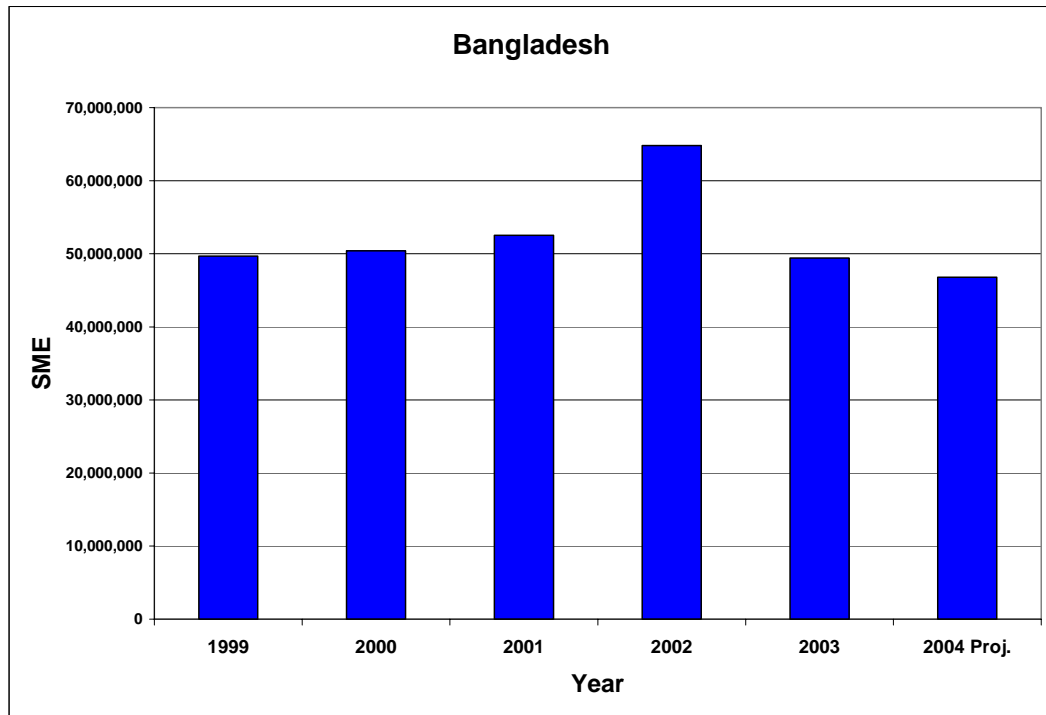
**Figure C-17: Bottom Weights Production in Egypt**



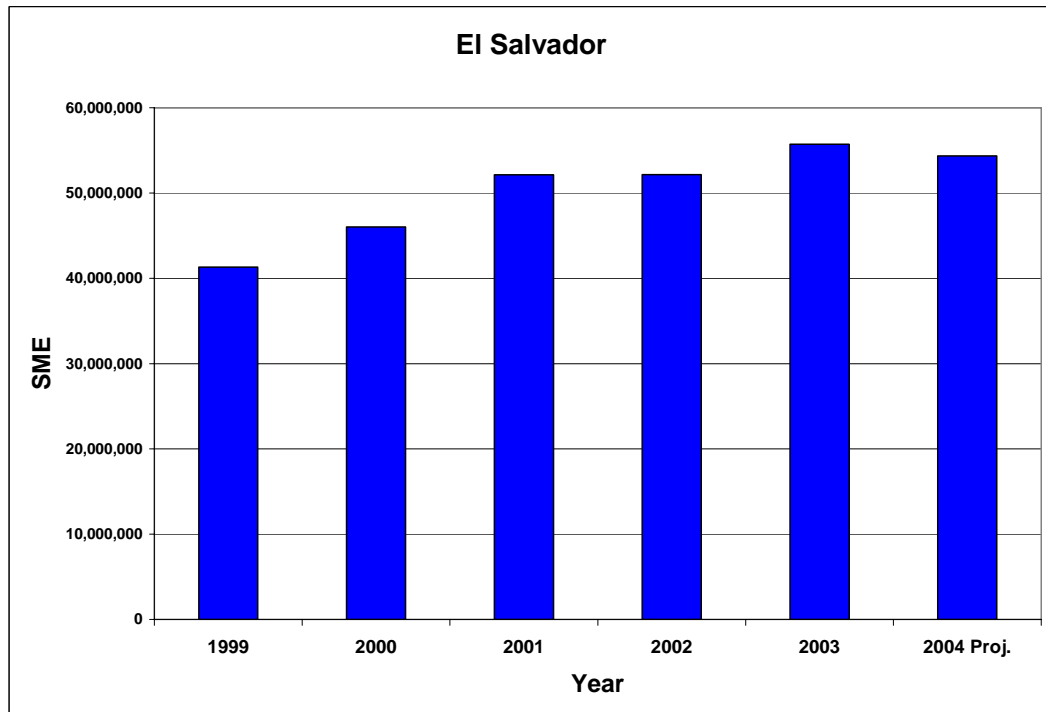
**Figure C-18: Bottom Weights Production in Cambodia**



**Figure C-19: Bottom Weights Production in Bangladesh**



**Figure C-20: Bottom Weights Production in El Salvador**





## APPENDIX D – EFFECTS OF QUOTA ELIMINATION

**Table D-1: Anticipated Effects of Quota Elimination - East Asia**

Summary of anticipated effects of quota elimination in 2005 and key competitive factors, by selected regions and countries		
Region/country	Likely effect of quota removal	Contributing factors
<b>EAST ASIA</b>	<p><b>Summary:</b> U.S. apparel companies and retailers are likely to expand sourcing from the region and continue close relationships with suppliers in the region, who are major sources of textile and apparel investment worldwide.</p>	<p><b>Summary:</b> Labor - Sewing skills considered among the best in the world.  Inputs - Substantial manufacturing base for raw materials.  Transportation - Best shipping times to the U.S. west coast within Asia.</p>
	<p><b>China:</b> Likely to be supplier of choice for most large U.S. apparel companies and retailers; uncertainty regarding textile-specific safeguards may temper export growth. Over the long term, competitiveness may diminish as strong economic growth leads to greater domestic demand for textiles and apparel, and for the labor and capital to make these goods.  Showed tremendous growth in export of goods for which it became eligible for quota-free entry in 2002.</p>	<p><b>China:</b> Labor - Per-unit labor costs very low due to low wages and high productivity.  Inputs - Produces fabrics, trim, packaging, and most other components used to make apparel and made-up textile articles.  Products - Considered by industry among the best in making most garments and made-up textile articles at any quality or price level. World's largest producer and exporter of textiles and apparel, notwithstanding tight quotas in major world import markets.</p>
	<p><b>Hong Kong and Macau:</b> Initially, may continue to be suppliers of some apparel under outward processing arrangements (OPAs) with China because of uncertainty regarding textile-specific safeguards with China. There are no other compelling reasons to source most apparel from these relatively high-cost suppliers.</p>	<p><b>Hong Kong and Macau:</b> Labor - High-cost suppliers compared with China.  Special arrangements - OPAs allow for some of the labor intensive production steps to take place in China, but remain a product of Hong Kong or Macau for trade purposes. Will not be subject to China-specific safeguards after quotas are removed.</p>
	<p><b>Korea and Taiwan:</b> Likely to continue as major suppliers of fabrics to global industry, including to China. However, U.S. firms are likely to move sourcing of apparel to lower-cost countries, particularly China; may continue to source certain garments from these suppliers (e.g., men's dress shirts, dresses, and other fashion apparel).</p>	<p><b>Korea and Taiwan:</b> Labor - High per-unit labor costs; high labor productivity.  Products - Small, flexible sewing lines advantageous for fashion apparel; highly automated sewing lines for dress shirts; offer full-package services.</p>

Source: "Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market," M.R. Abbott, 2004.

**Table D-2: Anticipated Effects of Quota Elimination - South Asia**

Summary of anticipated effects of quota elimination in 2005 and key competitive factors, by selected regions and countries		
Region or country	Anticipated effects of quota removal	Key competitive factors
SOUTH ASIA	<p><b>Summary:</b> U.S. firms will likely expand sourcing from South Asia with the removal of quotas in 2005.</p>	<p><b>Summary:</b> Inputs - Huge manufacturing base for yarns and fabrics.  Competitive position - Most competitive alternative to China as a supplier, but competitiveness of each country varies widely.</p>
	<p><b>India:</b> Likely to remain a competitive supplier to the United States when quotas are removed in 2005. Considered by many U.S. firms the primary alternative to China.  Over the long term, competitiveness may diminish as strong economic growth leads to greater domestic demand for textiles and apparel, and for the labor and capital to make these goods.</p>	<p><b>India:</b> Labor - Huge, relatively inexpensive, skilled workforce; has design expertise.  Inputs - Among the world's largest producers of yarns and fabrics;  Products - Wide range of apparel; considered a competitive source for home textiles (e.g., bed linens and towels).  Business climate - Personal safety, security of shipments between factories and ports and bureaucratic red tape and infrastructure are issues, with many U.S. firms using agents in lieu of dealing directly with producers.</p>
	<p><b>Pakistan:</b> Likely to continue as a supplier to the U.S. market. Considered by many U.S. firms as a competitive alternative to China, particularly for men's apparel.  May continue to be a global supplier of cotton yarns and fabrics.</p>	<p><b>Pakistan</b> Labor - Large, relatively inexpensive labor supply.  Inputs - Access to local supplies of raw cotton.  Business climate - The Government is taking steps to ensure the global competitiveness of the textile and apparel sector; personal safety and security of shipments between factories and ports are issues.</p>
	<p><b>Bangladesh:</b> The status of Bangladesh as an overall supplier to U.S. market is uncertain. Considered by some U.S. firms to be competitive alternative to China for mass-produced, low-end apparel.</p>	<p><b>Bangladesh:</b> Labor - Very low wage rates; productivity improving, but lags China; government is working to improve labor standards.  Inputs - Relies heavily on imports for woven fabric requirements; becoming increasingly self-sufficient in knit fabrics.  Special arrangements - Duty-free access to major world import markets, including the EU, Canada, and Norway.  Products - Mass-produced basic garments, including knit cotton tops and woven cotton pants.</p>

Source: "Textiles and Apparel: Assessment of the Competitiveness of Certain Foreign Suppliers to the U.S. Market," M.R. Abbott, 2004.

## APPENDIX E – PHASE II INTERVIEW SUMMARIES

**Table E-1: Total Summary of Interviews**

<b>SECTION</b>	<b>SUMMARY OF THE EXECUTIVE'S COMMENTS</b>										
Currency Exchange Rates	<p style="text-align: center;">Total impact:</p> <p><b>None – 6</b>, These companies try to do all business contracts in U.S. dollars.  <b>Small amount – 5</b>, Some were impacted in Europe, but most try to use US dollars.  <b>Large amount – 1</b>  <b>No answer – 3</b></p>										
Environmental and Social Compliance	<p style="text-align: center;">Q. Is compliance an important factor, as it relates to global trade?</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%;"><b>Environmental:</b></td> <td style="text-align: center; width: 50%;"><b>Social:</b></td> </tr> <tr> <td style="text-align: center;">Yes – 11</td> <td style="text-align: center;">Yes – 12</td> </tr> <tr> <td style="text-align: center;">No – 1</td> <td style="text-align: center;">No – 0</td> </tr> <tr> <td style="text-align: center;">No answer – 3</td> <td style="text-align: center;">No answer – 3</td> </tr> </table>	<b>Environmental:</b>	<b>Social:</b>	Yes – 11	Yes – 12	No – 1	No – 0	No answer – 3	No answer – 3		
<b>Environmental:</b>	<b>Social:</b>										
Yes – 11	Yes – 12										
No – 1	No – 0										
No answer – 3	No answer – 3										
Intellectual Property	<p><b>None – 7</b>, These companies did not generally own brands.  <b>Small – 3</b>, These companies were indirectly impacted or had small cases.  <b>Large – 4</b>, These companies owned brands and patents that were affected.  <b>No answer – 1</b>, This company has just started to purchase brands.</p>										
Government Interaction	<p><b>Political – 2</b>, U.S. is moving from restrictive trade towards preferential trade with friendly nations.  <b>Economic – 6</b>, U.S. makes the rules that we cannot change and they are hurting our industry.  <b>Both – 5</b>, U.S. is expanding the trading block to improve the global economy, and using its trade power to encourage countries to be friendly.  <b>No answer – 2</b></p>										
Employee Benefits	<p style="text-align: center;">Impact:</p> <p><b>Detrimental – 3</b>, the U.S. makes itself cost prohibitive due to its high wages, including benefit plans.  <b>Beneficial - 4</b>  <b>No answer – 8</b></p>										
Countries	<p style="text-align: center;">The total number of companies using each country in their supply chain:</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%;">China – 13</td> <td style="text-align: center; width: 50%;">Dominican Republic – 4</td> </tr> <tr> <td style="text-align: center;">India – 8</td> <td style="text-align: center;">Hong Kong – 4</td> </tr> <tr> <td style="text-align: center;">Mexico – 8</td> <td style="text-align: center;">Turkey – 4</td> </tr> <tr> <td style="text-align: center;">Pakistan – 8</td> <td style="text-align: center;">Brazil – 3</td> </tr> <tr> <td style="text-align: center;">Honduras – 6</td> <td style="text-align: center;"><b>note: this list does not include the U.S.</b></td> </tr> </table>	China – 13	Dominican Republic – 4	India – 8	Hong Kong – 4	Mexico – 8	Turkey – 4	Pakistan – 8	Brazil – 3	Honduras – 6	<b>note: this list does not include the U.S.</b>
China – 13	Dominican Republic – 4										
India – 8	Hong Kong – 4										
Mexico – 8	Turkey – 4										
Pakistan – 8	Brazil – 3										
Honduras – 6	<b>note: this list does not include the U.S.</b>										
Regions	<p><b>Asia – 8</b>, four companies use Asia as their primary location for manufacturing or sourcing of products, while most others utilize a blended model of Asia with Central and Latin America.  <b>Central and Latin America – 7</b>, seven companies use Central and Latin America as their primary production and sourcing region.</p>										

**Table E-2: Bottom Weights Market: Summary of Interviews**

<b>SECTION</b>	<b>SUMMARY OF THE EXECUTIVE'S COMMENTS</b>								
Currency Exchange Rates	<p>Total impact:  <b>None</b> – 4, These companies try to do all business contracts in U.S. dollars.  <b>Small amount</b> – 4, These companies were impacted in Europe, not Asia.  <b>Large amount</b> – 0  <b>No answer</b> – 1, One retailer had no reply to the question.</p>								
Environmental and Social Compliance	<p>Q. Is compliance an important factor, as it relates to global trade?</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><b>Environmental:</b></td> <td style="text-align: right;"><b>Social:</b></td> </tr> <tr> <td style="text-align: center;">Yes – 6</td> <td style="text-align: right;">Yes – 7</td> </tr> <tr> <td style="text-align: center;">No – 1</td> <td style="text-align: right;">No – 0</td> </tr> <tr> <td style="text-align: center;">No answer – 2</td> <td style="text-align: right;">No answer – 2</td> </tr> </table>	<b>Environmental:</b>	<b>Social:</b>	Yes – 6	Yes – 7	No – 1	No – 0	No answer – 2	No answer – 2
<b>Environmental:</b>	<b>Social:</b>								
Yes – 6	Yes – 7								
No – 1	No – 0								
No answer – 2	No answer – 2								
Intellectual Property	<p>Total impact:  <b>None</b> – 4, The companies did not own brands.  <b>Small</b> – 1, The company manufactured the products for a brand that was impacted.  <b>Large</b> – 4, These companies owned brands and patents that were affected.  <b>No answer</b> – 0</p>								
Government Interaction	<p><b>Political</b> – 2, U.S. is moving from restrictive trade towards preferential trade with friendly nations.  <b>Economic</b> – 3, U.S. makes the rules that we cannot change and they are hurting our industry.  <b>Both</b> – 3, U.S. is expanding the trading block to improve the global economy, and using its trade power to encourage countries to be friendly.  <b>No answer</b> – 1</p>								
Employee Benefits	<p>Impact:  <b>Detrimental</b> – 3, the U.S. makes itself cost prohibitive due to its high wages, including benefit plans.  <b>Beneficial</b> - 0  <b>No answer</b> – 6</p>								
Countries	<p>Total number of companies using each country in their bottom weight supply chain:  <b>Mexico</b> – 8, because of NAFTA benefits and proximity.  <b>China</b> – 7, because of its labor, infrastructure, and willingness to work with you.  <b>Honduras</b> – 5  <b>Dominican Republic</b> – 4  <b>Hong Kong</b> – 4</p>								
Regions	<p><b>Asia</b> – 3, three companies use Asia as their primary location for bottom weight products, while the other two utilize a blend of Asia with Central and Latin America.  <b>Central and Latin America</b> – 6, six companies use Central and Latin America as their primary production and sourcing region, while the other four use a blended sourcing model with Asian countries.</p>								

**Table E-3: Bed/Bath Market: Summary of Interviews**

<b>SECTION</b>	<b>SUMMARY OF THE EXECUTIVE'S COMMENTS</b>
Currency Exchange Rates	<p>Total impact:</p> <p><b>None – 2</b>, all negotiations are done in U.S. dollars.  <b>Small amount – 1</b>, the company stated that the currency risk is at the vendor level.  <b>Large amount – 1</b>, the strength of the Euro makes it difficult to source products from that region.  <b>No answer – 1</b>, one manufacturer had no reply to the question.</p>
Environmental and Social Compliance	<p>Q. Is compliance an important factor, as it relates to global trade?</p> <p><b>Environmental:</b>  <b>Yes – 4</b>  <b>No – 0</b>  <b>No answer – 1</b></p> <p><b>Social:</b>  <b>Yes – 4</b>  <b>No – 0</b>  <b>No answer – 1</b></p>
Intellectual Property	<p>Total impact:</p> <p><b>None – 3</b>, These companies were not impacted but thought that it was an issue overseas.  <b>Small – 2</b>, These companies said that it was not worth putting more resources into it.  <b>Large – 0</b>  <b>No answer – 0</b></p>
Government Interaction	<p><b>Political – 0</b>  <b>Economic – 3</b>, the Chinese government keeps billions of dollars from its foreign investors.  <b>Both – 1</b>, we look to source from other countries due to cost, but the government will not allow us to look in some countries like Mymar (Burma).  <b>No answer – 1</b></p>
Employee Benefits	<p>Impact:</p> <p><b>Detrimental – 0</b>, none of these companies felt that they were negatively impacted by employee benefits.  <b>Beneficial – 4</b>, this is a major benefit when manufacturing or sourcing in China. One company said that labor is only 3% of its total cost in their China facility. The majority of the companies look at first cost before analyzing total cost for business decisions.  <b>No answer – 1</b></p>
Countries	<p>Total number of companies using each country in their bottom weight supply chain:</p> <p><b>China – 5</b>, because of its labor, logistics, raw materials, and cost.  <b>India – 5</b>, because they are more proactive at creating designs (aesthetically superior) Poor infrastructure.  <b>Pakistan – 5</b>, good woven cotton products (better than China) and print sheeting.  <b>Turkey – 3</b>, because of good polyester products.  <b>Brazil – 3</b>, they are good at long-run, high volume products and are highly automated.</p>
Regions	<p><b>Asia – 4</b>, four companies use Asia as their primary location for bed and bath products. It was stated that Asia is utilized because they are experienced exporters, low cost producers, and have very good logistics.  <b>Central and Latin America – 1</b>, this retailer said that the products have higher quality than those in Asia. This company's first priority is quality.</p>

**Table E-4: U.S. Manufacturers: Summary of Interviews**

<b>SECTION</b>	<b>SUMMARY OF THE EXECUTIVE'S COMMENTS</b>								
Currency Exchange Rates	<p>Total impact:  <b>None – 2</b>, all negotiations are done in U.S. dollars.  <b>Small amount – 1</b>, but try to deal exclusively in U.S. dollars.  <b>Large amount – 0</b>  <b>No answer – 0</b></p>								
Environmental and Social Compliance	<p>Q. Is compliance an important factor, as it relates to global trade?</p> <table border="0" style="width: 100%;"> <tr> <td style="text-align: center;"><b>Environmental:</b></td> <td style="text-align: center;"><b>Social:</b></td> </tr> <tr> <td style="text-align: center;"><b>Yes – 3</b></td> <td style="text-align: center;"><b>Yes – 3</b></td> </tr> <tr> <td style="text-align: center;"><b>No – 0</b></td> <td style="text-align: center;"><b>No – 0</b></td> </tr> <tr> <td style="text-align: center;"><b>No answer – 0</b></td> <td style="text-align: center;"><b>No answer – 0</b></td> </tr> </table>	<b>Environmental:</b>	<b>Social:</b>	<b>Yes – 3</b>	<b>Yes – 3</b>	<b>No – 0</b>	<b>No – 0</b>	<b>No answer – 0</b>	<b>No answer – 0</b>
<b>Environmental:</b>	<b>Social:</b>								
<b>Yes – 3</b>	<b>Yes – 3</b>								
<b>No – 0</b>	<b>No – 0</b>								
<b>No answer – 0</b>	<b>No answer – 0</b>								
Intellectual Property	<p>Total impact:  <b>None – 0</b>  <b>Small – 2</b>, These companies said that it was not worth putting more resources into it.  <b>Large – 1</b>, this company has spent lots of money defending IP.  <b>No answer – 0</b></p>								
Government Interaction	<p><b>Political – 0</b>  <b>Economic – 2</b>, U.S. is hurting the industry. CAFTA would be beneficial to these companies.  <b>Both – 1</b>, trade agreements help certain regions, and the U.S. government will not allow sourcing from certain regions.  <b>No answer – 0</b></p>								
Employee Benefits	<p>Impact:  <b>Detrimental – 1</b>, one of these companies felt that they were negatively impacted by employee benefits.  <b>Beneficial – 0</b>  <b>No answer – 2</b></p>								
Countries	<p>The total number of companies using each country in their bottom weight supply chain:  <b>China – 1</b>, because of its labor, logistics, raw materials, and cost.  <b>Mexico – 2</b>, because of NAFTA benefits and proximity to the U.S. Mainly used for bottom weights.  <b>Pakistan – 2</b>, good woven cotton products (better than China) and print sheeting.  <b>Dominican Republic – 2</b>  <b>Honduras – 2</b></p>								
Regions	<p><b>Asia – 0</b>  <b>Central and Latin America – 3</b>, The companies used countries in the Western Hemisphere primarily because of speed to market. One company did a comparative analysis indicating that China was cheaper than Latin America, but the speed factor was more valuable to the customer of its bottom weight product.</p>								

**Table E-5: U.S. & Offshore Manufacturers: Summary of Interviews**

<b>SECTION</b>	<b>SUMMARY OF THE EXECUTIVE'S COMMENTS</b>								
Currency Exchange Rates	<p align="right">Total impact:</p> <p><b>None</b> – 2, all negotiations are done in U.S. dollars.  <b>Small amount</b> – 3, try to deal in all USD, but cost of goods sold increase as local currencies fluctuate.  <b>Large amount</b> – 0  <b>No answer</b> – 1</p>								
Environmental and Social Compliance	<p align="center">Q. Is compliance an important factor, as it relates to global trade?</p> <table border="0"> <tr> <td align="center"><b>Environmental:</b></td> <td align="center"><b>Social:</b></td> </tr> <tr> <td align="center"><b>Yes</b> – 5</td> <td align="center"><b>Yes</b> – 5</td> </tr> <tr> <td align="center"><b>No</b> – 0</td> <td align="center"><b>No</b> – 0</td> </tr> <tr> <td align="center"><b>No answer</b> – 1</td> <td align="center"><b>No answer</b> – 1</td> </tr> </table>	<b>Environmental:</b>	<b>Social:</b>	<b>Yes</b> – 5	<b>Yes</b> – 5	<b>No</b> – 0	<b>No</b> – 0	<b>No answer</b> – 1	<b>No answer</b> – 1
<b>Environmental:</b>	<b>Social:</b>								
<b>Yes</b> – 5	<b>Yes</b> – 5								
<b>No</b> – 0	<b>No</b> – 0								
<b>No answer</b> – 1	<b>No answer</b> – 1								
Intellectual Property	<p align="right">Total impact:</p> <p><b>None</b> – 2  <b>Small</b> – 2, mainly involving brands.  <b>Large</b> – 2  <b>No answer</b> – 0</p>								
Government Interaction	<p><b>Political</b> – 2, These companies believe that the U.S. is moving towards preferential trade with our friends.  <b>Economic</b> – 2, These companies think that government laws limit the success of locating or sourcing overseas in some areas.  <b>Both</b> – 2, This company stated that political and economic changes limit their success in some countries.  <b>No answer</b> – 0</p>								
Employee Benefits	<p align="right">Impact:</p> <p><b>Detrimental</b> – 1, because the labor and benefits cost in the U.S. is so much higher than overseas.  <b>Beneficial</b> – 2, because this company has a facility in China.  <b>No answer</b> – 3</p>								
Countries	<p align="center">The total number of companies using each country in their supply chain:</p> <p><b>China</b> – 6  <b>Mexico</b> – 4, because of NAFTA benefits and proximity to the U.S. Mainly used for bottom weights.  <b>India</b> – 4  <b>Honduras</b> – 3</p>								
Regions	<p><b>Asia</b> – 4, Two of these companies stated that it is better to produce fashion products in China because if it is a one time product, you do not need to be close to the market. (no replenishment needed)  <b>Central and Latin America</b> – 2, Both companies focus on this region due to the speed to market advantage that it provides.</p>								

**Table E-6: U.S. Retailers: Summary of Interviews**

<b>SECTION</b>	<b>SUMMARY OF THE EXECUTIVE'S COMMENTS</b>								
Currency Exchange Rates	<p style="text-align: right;">Total impact:</p> <p><b>None</b> – 2,  <b>Small amount</b> – 2  <b>Large amount</b> – 1, primarily in Europe because the strength of the euro put the U.S. at a disadvantage.  <b>No answer</b> – 1,</p>								
Environmental and Social Compliance	<p style="text-align: center;">Q. Is compliance an important factor, as it relates to global trade?</p> <table style="width: 100%; border: none;"> <tr> <td style="text-align: center; width: 50%;"><b>Environmental:</b></td> <td style="text-align: center; width: 50%;"><b>Social:</b></td> </tr> <tr> <td style="text-align: center;">Yes – 4</td> <td style="text-align: center;">Yes – 4</td> </tr> <tr> <td style="text-align: center;">No – 1</td> <td style="text-align: center;">No – 1</td> </tr> <tr> <td style="text-align: center;">No answer – 1</td> <td style="text-align: center;">No answer – 1</td> </tr> </table>	<b>Environmental:</b>	<b>Social:</b>	Yes – 4	Yes – 4	No – 1	No – 1	No answer – 1	No answer – 1
<b>Environmental:</b>	<b>Social:</b>								
Yes – 4	Yes – 4								
No – 1	No – 1								
No answer – 1	No answer – 1								
Intellectual Property	<p style="text-align: right;">Total impact:</p> <p><b>None</b> – 6, but as retailers buy brands, they may see more of an impact.  <b>Small</b> – 0  <b>Large</b> – 0  <b>No answer</b> – 0</p>								
Government Interaction	<p><b>Political</b> – 0,  <b>Economic</b> – 2,  <b>Both</b> – 1,  <b>No answer</b> – 3</p>								
Employee Benefits	<p style="text-align: right;">Impact:</p> <p><b>Detrimental</b> – 1  <b>Beneficial</b> – 2, because they have taken advantage of low cost labor offshore.  <b>No answer</b> – 3</p>								
Countries	<p style="text-align: center;">The total number of companies using each country in their supply chain:</p> <p><b>China</b> – 6  <b>India</b> – 5  <b>Pakistan</b> – 3  <b>Mexico</b> – 2  <b>Brazil</b> – 2</p>								
Regions	<p><b>Asia</b> – 4  <b>Central and Latin America</b> – 2</p>								



### Appendix E-7: Results Table from Interviews

SECTION	Total <sup>1</sup>	1) By Market		2) By Supply Chain Segment			3) Other		4) Key learnings	
		Bottom weight Market	Bed/Bath Market	U.S. Manufacturers	U.S. & Offshore Manufacturers	U.S. Retailers	Sourcing Agents	Auxiliary Companies <sup>2</sup>		
Currency exchange rates	None	6	4	2	2	2	2	0	0	85 % of the companies that responded thought that currency exchange rates impacted their companies in a small amount or not at all. Only one felt that it made a big impact.
	Small amount	6	4	2	1	3	2	0	0	
	Large amount	2	0	1	0	0	1	0	1	
	No answer	4	1	1	0	1	1	1	1	
Environmental Compliance	Yes	14	7	5	3	5	4	1	1	Every company that responded, except one retailer, claim to maintain environmental compliance. That retailer stated that they do not audit environmental compliance at vendor locations.
	No	1	1	0	0	0	1	0	0	
	No answer	3	1	1	0	1	1	0	1	
Social Compliance	Yes	15	8	5	3	5	5	1	1	Every company that responded said that they work to maintain social compliance.
	No	0	0	0	0	0	0	0	0	
	No answer	3	1	1	0	1	1	0	1	
Intellectual Property	None	8	4	4	0	2	6	0	0	73% of the executives that responded said that they were either impacted in a small way or none at all by IP theft. Due to the nature of the bed/bath products, those executives said that it is not a major issue. The majority of people affected own brands.
	Small	4	2	2	2	2	0	0	0	
	Large	4	3	0	1	2	0	0	1	
	No answer	2	0	0	0	0	0	1	1	
Government Interaction	Political	2	2	0	0	2	0	0	0	There is not really any significant findings regarding government interaction. Most feel that it is at least partly due to economics, but an emerging theme was the government's shift toward using trade power to encourage countries to be friendly.
	Economic	7	3	3	2	2	2	0	1	
	Both	6	3	1	1	2	1	1	1	
	No answer	3	1	2	0	0	3	0	0	
Employee Benefits	Detrimental	4	2	1	1	1	1	0	1	Bed/bath companies have already utilized the low cost labor in Asia. They consider it a benefit.
	Beneficial	4	1	3	0	2	2	0	0	
	No answer	10	6	2	2	3	3	1	1	
Countries	China	15	7	6	1	6	6	1	1	China, India, and Pakistan were the only countries that were used by both markets. Mexico is very important to the bottom weights market, and every company in this group had products there. The rest of the top countries are generally used for either bottom weight apparel or bed/bath products. This is consistent with the executives comments regarding the decision to get products from certain countries based on their core competencies.
	India	11	3	6	0	4	5	0	2	
	Pakistan	10	3	6	2	3	4	0	1	
	Mexico	9	8	0	2	4	2	0	1	
	Honduras	6	5	0	2	3	0	1	0	
	Turkey	5	1	3	0	3	1	0	1	
	Dominican Rep.	4	4	0	2	2	0	0	0	
	Hong Kong	4	4	0	1	2	1	0	0	
Regions	Brazil	3	0	3	0	1	2	0	0	Central and Latin America (Western Hemisphere) are much more important to the bottom weight market.
	Guatemala	3	3	0	1	2	0	0	0	
	Asia	11	3	5	0	4	4	1	2	
	Latin and C. America	7	6	1	3	2	2	0	0	

<sup>1</sup> The totals include the three companies classified as Other during Phase II of the research.

<sup>2</sup> The two auxiliary companies include 1) a direct global supplier to apparel manufacturers and retailers and 2) a predominantly offshore apparel manufacturer.