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Turkish Towel's Place in the Global Market

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ABSTRACT

Purpose: The objective of this paper is to review the competitive advantage of Turkey in the global towel market by using Porter's Theory of Competitive Advantage of Nations (1990) as a conceptual framework.

Methodology: A comprehensive review of secondary data sources, both research and trade are reviewed.

Keywords: towel, marketing, Turkey, global competitiveness, nation's competitive advantage, Porter's Diamond

Introduction

The trade in textiles and apparel has become more and more liberalized over the years. This trade liberalization has yielded a globalization effect on the global textile and apparel market. There has been significant research in the factors influencing trade liberalization or in understanding or analyzing the bases for globalization of trade. The theories related to international trade include Ricardo's Theory of Comparative Advantage as Classical Trade Theory (Ricardo, 1817), Heckscher-Ohlin Trade Theory of Factor Proportions as Neo-Classical Trade Theory (Heckscher & Ohlin, 1991), Posner's Technology Trade Gap Theory (Posner, 1961) and Vernon's Product Life Cycle Theory (Vernon, 1966) as Post-Neo Classical Trade Theory, and Porter's Competitive Advantage of Nations Model as Modern Trade Theory (Porter, 1990).

David Ricardo developed the Classical Trade Theory in the early 19th century that describes trade patterns between countries that should be based not on absolute efficiency but on relative efficiency. Ricardo believed that a country only has to have a relative advantage which is determined by the relative productivity of labor to benefit from trade (Ricardo, 1817). Even though Ricardo's theory has important fallacies, it is considered to be the basis of international trade thought, and comparative advantage is generally accepted as a valid viewpoint by economists (Coleman, 1986).

In their trade theory which is selected as neo-classical trade theory, Eli Heckscher and Bertil Ohlin developed the idea that a country will export goods that are intensive in production in its abundant factors and import goods intensive in its relatively scarce factors (Heckscher & Ohlin, 1991). However, almost all empirical studies carried out have shown that the Heckscher-Ohlin Theory of Factor Proportions is not accurate. This theory does not provide a satisfactory explanation for international trade. This theory is best applicable to trade between developing and developed countries where there is higher difference among factors, but not for the trade among developed countries (Grimwade, 2000).

As the first one of the two Post-Neo-Classical Trade Theories, in his paper "International Trade and Technical Change", Michael Posner wrote the Technology Gap Theory in order to explain the influence of technology on trade flows. Additionally, this theory presented an explanation of trade in manufactured goods between advanced countries with similar economic conditions (Posner, 1961).

In the second Post-Neo-Classical Trade Theory, Product Life Cycle Trade Theory, Raymond Vernon also addresses the factor of technology on trade. Vernon puts more emphasis on the life of the actual product, whereas Posner puts more emphasis on the life of the technology used to make the product. This theory concludes that developing countries will specialize and export those products which are more standardized, while developed countries will specialize in and export new products (Vernon, 1966). There are many products in real life which proves the validity of this theory which include consumer durables, petrochemicals and others (Harrigan, 2001). The two post-neo-classical trade economists introduced the importance of technology on trade (Parrish, 2003).

The mentioned theories are not satisfactory in explaining the competition between countries. In 1990, Michael Porter published "The Competitive Advantage of Nations" where he sought to answer the following question: Why does a nation become the home base for successful international competitors in an industry? Porter's contribution to the theory of international trade is the introduction of the importance of the firm to his model, which is considered to be Modern Trade Theory (Porter, 1990). This model is investigated in more detail in a following section of this paper. Table 1 summarizes the previously mentioned trade theories.

Table 1
Trade Theories

Era	Trade Theory	Contribution	Specialization*
Classical Trade Theory	Ricardo's Theory of Comparative Advantage	Introduction of a one factor model	Countries will tend to specialize in those products in which they enjoy low relative labor costs.
Neo- Classical Trade Theory	Heckscher-Ohlin Trade Theory of Factor Proportions	Introduction of a multi-factor model	Countries will specialize in those goods which are intensive in production in its abundant factors and import those goods which are intensive in its relatively scarce factors.
Post-Neo-Classical Trade Theory	Posner's Technology Trade Gap Theory Vernon's Product Life Cycle Theory	Introduction of technology as a factor	Developed countries will tend to specialize in new products. Developing countries will tend to specialize in those products which are more standardized.
Modern Trade Theory	Porter's Competitive Advantage of Nations Model	Introduction of the importance of the firm	Countries will specialize in those industries in which the main determinants are favorable for the firm.
* Specialization relates to country specialization.			

Note. From Parrish, E. D.(2003). Niche Market Opportunities in the Global Market Place. *Unpublished Dissertation,* North Carolina State University.

This trade liberalization accompanied a globalization movement for the textile and apparel industry. The Turkish textile and apparel industry has grown over the years and the towel industry in Turkey is now one of the most important towel producers in the global market on both quality and volume basis, with its cost per square meter equivalent well above the world average ("Major shippers," 2006 & 2006b; Cassill, 2005). This paper aims to establish a competitiveness assessment of the growing competitive Turkish towel industry by using Porter's Theory of Competitive Advantage of Nations (1990) as a conceptual framework.

Globalization

Globalization can be described as international integration in general. It has impacts which range from changes in information flows, cultural interchanges, and political interdependencies to the effects on trade patterns, specialization, foreign direct investments, and global capital flows (Andersena & Herbertson, 2005).

Globalization for the textile supply chain means marketing in the most profitable places in the world and manufacturing in the most economical places in the world (Cassill, 2005). It is a two-dimensional evolution that is based on sourcing strategies, competitive market positioning and resource availability (Gereffi, 1997).

Global Competitive Advantage

The textile and apparel industry is one of the most highly competitive sectors in the world because of its low barriers to entry ("Textiles industry," 2004). An industry derives substantial relative competitive advantages or disadvantages from the characteristics of its home economy (Gray, 1991).

Porter's Diamond Theory of Competitive Advantages of Nations in the Global Market

Porter's "Diamond" model (1990) describes the four elements necessary to achieve international success in a particular industry:

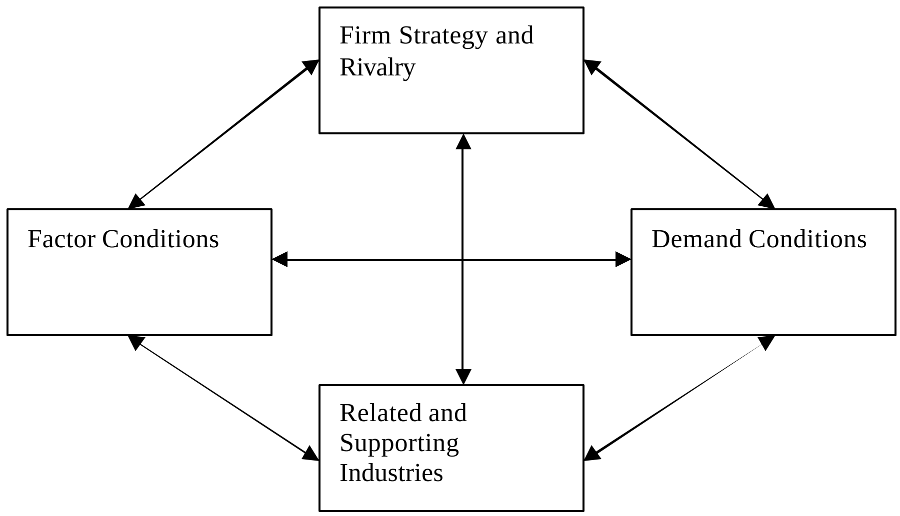

Figure 1: Determinants of National Advantage. *Note*. From Porter, M. E. (1990). *Competitive Advantage of Nations.* Free Press. New York, p. 127.)

Factor conditions.

Factor conditions are the supply and availability to a specific industry of factors of production, including human and physical resources (like location), knowledge resources, financial capital resources, and infrastructure (Porter, 1990). In other words, they are the presence of specialized pools of skills, technology, and infrastructure (Tatcher, 1997).

Demand conditions.

Demand conditions refer to the presence of sophisticated and demanding local clients (Tatcher, 1997). The demand of domestic buyers can function as a means of establishing a quality advantage (Gray, 1991). The domestic demand forces the manufacturers to innovate and improve their products (Parrish, 2003). The important issue is not the size of the home market, but the extent to which it pressures firms to meet high standards (Davies & Ellis, 2000).

Related and supporting industries.

A competitive advantage in supplier industries will clearly benefit downstream national firms if it derives from a natural resource base or a technology leader (Porter, 1990). This condition is the presence of a critical mass of capable local suppliers of specialized inputs (Tatcher, 1997). The presence of clusters in the home base economy will give the industry international competitive advantage. The clusters have firms in itself "which are linked to each other through vertical or horizontal relationships amongst supplying and buying sectors or common customers, distribution channels or technologies" (Davies & Ellis, 2000; p.1191). Geographic clustering enhances the flow of information, increases the rivalry and results in innovation (Pressman, 1991).

Firm strategy, structure and rivalry.

Firm strategy, structure and rivalry can be explained as the presence of capable, committed, fiercely competing local rivals (Tatcher, 1997). There is a need for a sustained and long-term commitment by management and a need for intense domestic rivalry so that the nation's stable of firms is substantially efficient in all of its activities (Gray, 1991). Domestic competitive pressure provides the firms the dynamic that also enhances the international competitive advantage (Davis & Ellis, 2000).

I.

Nations are most likely to succeed in industries or industry segments where the national diamond is most favorable. Success does not occur in isolated industries, but in clusters: firms and institutions, both public and private, linked through customer, supplier and other relationships (Tatcher, 1997). These clusters generate technological spillovers and tend to be geographically concentrated so that they enjoy economies of agglomeration—particularly through specialist markets and good inter-firm communications (Gray, 1991).

Other forces acting on the diamond.

Other forces affecting the competitiveness of nations include government, chance and other non-market factors. Governments act as important buyers of products and services and the policymakers on labor, capital formation and product standards as well. Chance can be considered as the occurrences that are beyond the control of firms (Gray, 1991). Chance includes unpredictable technological discontinuities, wars and other chance events (Davies & Ellis, 2000). Other non-market factors are interest groups, activists and the public (Gray, 1991). These forces are not included to the diamond itself, but they affect the conditions within it (Davies & Ellis, 2000). The rest of the paper will examine towels, U.S. towel market, and Turkish towel industry and investigate the competitiveness of Turkish towels in the global market.

Towels

Description

A terry towel is described as a textile product which is made with a loop pile on one or both sides, generally covering the entire surface or forming stripes, checks, or other patterns (with end hems or fringes and side hems or selvages) (ASTM D 123, 2003).

Classification of Terry Towels

The classification of towels can be made according to size and end use as:

- Bath towels
- Face towels
- Hand towels
- Fingertip Towels
- Kitchen Towels
- Guest towel
- Washcloths ("US current industrial," 2005).

Towel Production and Consumption in the United States

Towel Production and Consumption Figures of the United States Market

In the U.S. textile market, the bath category is a growing sector of home textiles. During 2004, the bath category increased 2.8% in sales to $3.7 billion, 51% of which is towels at $1.881 billion (Corral, 2005).

Whereas these numbers explain the retail sales of towels, the production and shipment quantities and values of U.S. produced towels for years 2002 to 2004 are shown in Table 2. In 2004, the value of terry towel shipments from the U.S. was $715,575,000. Volume (production and shipment) and value of U.S. production has continued to decline during 2002-2004.

Table 2.
US Terry Towel Production and Shipment Figures for 2002 to 2004

Quarter and year		**Production**	**Shipment**	
		Quantity (Thousand dozen)	**Quantity** (Thousand dozen)	**Value** ($1000)
2004	Total	20,822	21,406	715,575
	Q4	4,493	4,669	162,708
	Q3	5,227	5,354	180,124
	Q2	5,706	5,778	190,762
	Q1	5,396	5,605	181,981
2003	Total	25,346	26,370	822,099
2002	Total	29,635	29,550	946,114
	Change			
	2002-2003	-%14	-%11	-%13
	2003-2004	-%18	-%19	-%13

Note. From *US current industrial records- bed and bath furnishing* (2005). U.S. Department of Commerce. Retrieved, 08-01-2005, from: http://www.census.gov/cir/www/314/mq314x.html

The U.S. import figures of terry woven towels and washcloths for 2004 are shown in Table 3. The total quantity of imported terry woven towels and washcloths to U.S. was 131,837,000 dozens and its value was $1,359 billion dollars in 2004. The rate of import penetration was 72% in the U.S market (year 2004, value basis).

In the first quarter of the year 2005, 33,350,000 dozens of finished towels were imported to the U.S. for consumption with the value of $399,921,000 while, 5,794,000 dozen finished towels were produced in the U.S. The import penetration in the US market on quantity basis was 84%, while the percent of export to domestic manufacturer's shipments was 5.4% again in quantity basis for the first quarter of 2005. Towel consumption was 38,834,000 dozens for 2005's first quarter in US ("US current industrial," 2005). Domestic production cannot compete with the producers from developing countries on cost basis. Cost is one reason why a very large percentage of towels in the U.S. market place are imported, a trend similar to other textile and apparel products (Cassill, 2005).

Table 3.

US Import Figures of Woven Terry Towels in the first quarter of 2005 and four quarters of 2004

Product description	Imports for consumption	
Terry woven towels and washcloths	**Quantity** thousand dozen	**Value** $1000
2005		
Q1	33,350	399,921
2004		
Total	131,837	1,358,951
Q4	34,436	339,745
Q3	34,436	309,290
Q2	32,952	347,046
Q1	32,971	362,870

Note. From *U.S. Imports of Textiles, Textile Products and Apparel, Top Trading Partners Top Countries Based on Current Month* (2005). U.S. Department of Commerce. Retrieved 10-08-2005, from: http://www.census.gov/foreign-trade/statistics/country/sreport/country.txt

Table 4 shows the production and shipment figures of terry towels according to the end uses. While the washcloths had the first rank in volume (13,300,000 dozen washcloths out of 20,822,000 dozen finished towels of all purposes), bath towels had the biggest share in total value of the 2004 toweling market ($441,875,000 out of total $715,575,000).

Table 4.

Production and Shipment Figures of Towels according to their end uses.

Product Description	2004 Production	2004 Shipments	
	Quantity thousand dozen	**Quantity** thousand dozen	**Value** $1000
Finished towels	20,822	21,406	715,575
By end use:			
Kitchen	(D)*	(D)	(D)
Bath	10,827	11,226	441,875
Hand, face, guest, and fingertip	7,995	7,975	171,303
Bath/tub mats	(D)	(D)	(D)
All other	(D)	(D)	(D)
Washcloths	13,300	12,724	111,882

*D The information was not disclosed to protect the privacy of the companies that produce these items.

Note. From *U.S. Imports of Textiles, Textile Products and Apparel, Top Trading Partners Top Countries Based on Current Month* (2005). U.S. Department of Commerce. Retrieved 10-08-2005, from: http://www.census.gov/foreign-trade/statistics/country/sreport/country.txt

There are some important U.S. towel producers supplying the United States Market such as Springs Industries (S.C.), Westpoint Stevens (Ga.), 1888 Hills (Ill.), J.R United (Hi.), Revere Mills (Ill.), Towels Etc. (Pennsylvania), Custom Towels Inc. (Ill.), McArthur Towels (Wisconsin), Sero Sales, Anvil Knitwear, and Professional Towel Mills (S.C.). Pillowtex, which was the U.S.A.'s second largest towel manufacturer, went out of business in July, 2003. This event in which over 8,000 people were out of work had an impact on the industry (Neelly, 2004). U.S. division of Belgian owned Santens, which was a producer of bath assemblies and beach towels, also permanently shut down in May 2007. The plant which was located in Anderson, S.C. closed due to increased competition from foreign manufacturers (Corral, 2007).

Important Supply Chains and Retail Channels in the United States Towel Market

Retail Channels

Some of the major retail channels that sell towels in the U.S. are mass/discount stores (Wal-Mart and Target), department stores (Sears, Dillard's, Macy's, and Kohl's) and specialty stores (Bed, Bath & Beyond and Linens-n-Things) (Sanfilippo, 2005). Some of the towel brands on the retail shelves include branded and licensed products such as Avanti, CalvinKlein, Tommy Hilfiger, DKNY, Charter Club, Court of Versailles, Donna Karan, Hotel Collection, Lauren Ralph Lauren, Lenox, Lilly Pulitzer, Missoni, Ralph Lauren, and Sigrid Olsen (Macy's, 2005). Private brand examples include Opulence of Sears and Bed Bath & Beyond's Mandalay (Sanfilippo, 2005). Companies such as WestPoint Stevens (with Seduction) and Venus Home (with Embrace) have developed their own brands of towels (Lazaro, 2003).

Towel Sourcing by the United States Producers

The U.S. towel providers are using several sourcing strategies to produce towels for the U.S. marketplace. Table 5 presents some data about the top 5 U.S. based towel producers.

Li & Fung, a Hong Kong based sourcing organization with a New York City office, has the ability to source efficiently in countries such as Thailand and China, as well as India and Turkey. Li & Fung purchased Pillowtex's Royal Velvet and Cannon brands (Sasi, 2005) as a business strategy to offer branded towels to retail customers. Revere Mills source towels in India and Pakistan, and these towels are made with low-twist yarns which gives high absorbency and softness (Leizens, 2004).

Table 5.
Top 5 US.-based Towel Producers ($millions).

Company Name, Headquarter	2005 import volume ($1,000,000)	2004 import volume ($1,000,000)	% change
Springs Inc. (Fort Mill, S.C.)[1]	190	170	12
1888 Mills (Oakbrook Terrace, Ill.)[2]	100	75	33
J.R. United (Miami, Fla.)[3]	86	70	23
Revere Mills (Des Plaines, Ill.)[4]	54	46	18
WestPoint Stevens (West Point, Ga.)[5]	48	48	0

[1] Springs Inc closed two domestic towel plants (weaving and finishing) to streamline costs, and stepped up offshore sourcing to remain competitive.

[2] 1888 Mills achieved strong growth in commercial and retail divisions; added new customers and increased business with existing customers, all at the mass merchant, specialty chain and department stores levels and continued expanding its sourcing globally for the category as well.

[3] J.R. United saw growth in its fashion towels business with jacquards and prints; experienced continued growth with its Izod licensed program. It also increased business with specialty and mid-tier department store customers.

[4] Revere Mills gained new placement with specialty chains and regional mass merchants; continued to reap benefits of partnerships forged last year with two Pakistan mills and expansion of its corporate headquarters.

[5] West Point Stevens consolidated bath towel manufacturing capacity but did not need to ramp up importing.

Note. From What a difference a year makes. (2005). *Home Textiles Today, 26*(45), 8-8. Table reconstructed by Yilmaz, N. D. (2007).

Offshore Producers Supplying the United States Market

With the elimination of textile and apparel quotas in January 1st, 2005, for towel and bedding categories, annual import reports are populated by a collection of new offshore leaders. Most have been well-known in the US home textiles industry for several years, although their sales volumes in this country had been held "in check" by quota restrictions. Predictably, volume levels rose substantially with quota eliminations ("What a difference," 2005).

Many retailers purchase towels from vendors that source from vertical manufacturers in China, Turkey, Thailand, India (Sasi, 2005), Pakistan (Leizens, 2004), Brazil or from U.S. manufacturers that have mills in these countries ("What a difference," 2005). According to the report of Leizens (2005) Sunvim's mill is using new equipment and special finishing methods. Sharadha, which is among the largest producers, aside from Welspun and Trident, is the developer of low-twist, high-absorbency towel, MicroCotton®. All three sell their products in the United States to suppliers and retailers (Lazaro, 2003). Table 6 gives the top five bath towel exporter firms to the United States in 2005.

Table 6.
Top 5 Bath Towel Exporters to the United States ($millions).

Company Name	2005 exports to U.S. ($1,000,000)	2004 exports to U.S. ($1,000,000)	% change
Abhishek Industries (Trident) (India)[1]	80	56	43
Welspun (India)[2]	80	45	78
Karsten Blumeneau (Brazil)[3]	47	NA	NA
Loftex (China)[4]	32	NA	NA
Sunvim (China)[5]	17	13.1	30

[1] Abhishek Industries is located in Mumbai, India. When it completes the second phase of its expansion late fall 2005, Trident expects to double its capacity.

[2] Also located in Mumbai, India, Welspun has doubled manufacturing capacity and backed it up with the hiring of a U.S. sales and design staff since the beginning of 2004.

[3] Brazil based Karsten Blumenau has also begun outsourcing to other countries although the bulk of its towel business continues to be produced in Brazil.

[4] Located in Binzhou, China, Loftex established a U.S. office last year in advance of quota elimination to position itself for growth in 2005.

[5] Another Chinese producer located in Qingdao, Sunvim hired a U.S. sales representative to leverage the business with the elimination of quota.

Note. From What a difference a year makes. (2005). *Home Textiles Today, 26*(45), 8-8. Table reconstructed by Yilmaz, N. D. (2007).

Consumer Behavior in the United States Market

According to the Lifestyle Monitor ™ Home Fabrics Survey of Cotton Incorporated (2003), consumers in the United States pay an average of $7 for a bath towel and their households own and use an average of 15 bath towels. 79% of them wash the towel before first use ("The fine art," 2003).

Market requirements for terry towels include performance, fashion, style, color, pattern, and hand (Yilmaz et al, 2005). According to a survey of Home Furnishing News (1999), consumers take style, absorbency, price, softness, fiber type, quick drying, and brand name into consideration in bathroom towel purchases. According to this report, absorbency is the most important factor in consumers' choices of bath towels, softness is the second, and the fiber type is the third most important factor. The towel's brand name is of relative unimportance ("HFN," 1999).

According to the Cotton Incorporated Lifestyle Monitor ™ Home Fabrics Study in 2003, 91% of the female consumers polled said they prefer thicker towels, and 94% said they like their towels as soft as possible. The two most important factors they cite when purchasing a bath towel are absorbency (82%) and softness (83%). Consumer preferences about fiber type were not mentioned in this study. "Nothing feels more luxurious and comforting than wrapping myself or one of my children in a thick, soft, fluffy towel after bathing" says Lindsey, a healthcare administrator and mother of two living in Boston, Massachusetts ("The fine art," 2003). The results of the two surveys are in agreement to some extent as the most important factors in both studies are softness and absorbency; the ranking is reversed. When the trends in the towel market are observed, it is evident that the manufacturers understand that softness, absorbency and fiber types are important factors for buyers and they respond to it.

Trends in the United States Towel Market

New fibers, new yarn fabrications, and new weaving techniques are a focal point in the world's towel market in addition to fashion statements (Leizens, 2005). The big trends in towels relate to the surface performance, such as softness and absorbency (SanFilippo, 2005). Miami-based J.R. United noted that the solid color towel market was saturated and there needed to be a reason for consumers to buy towels besides low price (Corral, 2005).

Softer Hand

Towels are becoming softer, whether they are solid color, jacquard-woven or printed. A trend is seen to be moving toward a loftier, fuller towel with a soft hand either by fiber type, yarn fabrication or by finishing and still maintaining all necessary quality specifications (Leizens, 2005).

New Fibers

As towel retailers are in search for unique, innovative and differentiated towel products, more and more towels are produced from fibers other than cotton. New fibers include modal, bamboo, seaweed, Lyocel and now soybean, corn (SanFilippo, 2005); tri-blend bamboo, silk and cotton (Corral, 2005); and micro-fiber (Lazaro, 2003). According to the tests which were carried out by Consumer Reports, towels made of a blend of cotton and bamboo were averagely about 25 % softer than their all-cotton counterparts after laundering. The blend of those towels includes cotton and rayon fibers which were produced from cellulose that is extracted from bamboo ("Bamboo towels," 2006).

Welspun USA added soy fiber to cotton in its SoyaCot® towels to improve hand and absorbency. Meanwhile, Bardwil Linens developed Lenox-branded Mansfield Crest towel from a combination of 10 % porcelain fiber, 20 % bamboo and 70 % low-twist cotton which provided a soft hand with the feel of cashmere (Sanfilippo, 2005b). In 2004 Revere Mills added to its offerings an India-made tri-blend bamboo, silk and cotton bath ensemble collection (Corral, 2005). Other retail channels that currently sell bamboo towels include Sears with the Opulence towel and Bed Bath & Beyond with Mandalay. Target and Macy's introduced bamboo towels in summer 2005 (Sanfilippo, 2005).

Novel Yarn Fabrications

One of the greatest growth areas in the towel market is expected to come from new yarn techniques. To date, the most important innovation in yarn fabrication for towels has been the introduction of low twist yarns. These yarns are spun with longer staple cotton fibers with a very low twist. This type of yarns can be called low-twist, no-twist, or zero-twist (although it has a very low twist). MicroCotton®, which is a trademark registered to Sharadha Terry Products Ltd in India, is the best-known one of the branded low-twist yarns (Lazaro, 2003).

MicroCotton® is also used in Seduction-branded towels sold at Bed Bath & Beyond and Linens-n-Things. Lands' End and Wal-Mart have their own low-twist versions (Leizens, 2004). MicroCotton® towels are also sold at Macy's as a luxurious towel with the retail price of a 30-by-54-inch towel being $25 ($19.99 on sale) (Leizens, 2004). The MicroCotton® label appears on WestPoint Stevens' "top-drawer" Seduction towels (retails $19.99), and Embrace towels of Venus Home (retails $14.99), as well as on better private label towels at Dillard's and Federated Department Stores (Lazaro, 2003).

Another novel yarn fabrication is HygroCotton® which is a trademark spinning technology of Welspun. The spinning technology makes the towel absorbent by giving each cotton strand a hollow core that wicks moisture and if combined with the use of long staple cotton, also gives the soft hand (Leizens, 2005).

Finishing

With super-softening, ultra-hydrophilic, antibacterial, scented or anti-allergenic finishing, the towel market has become somewhat like the apparel industry with new technologies to form a wider appeal among consumers (Corral, 2005). The chemicals for finishing can be added in the last stage of production, as in the conventional technique, or can be bonded to the fiber before spinning, as in the novel technique which renders the function to last longer and not to wash away until an extended number of wash cycles ("Antimicrobial fibre," 2004).

Design

Towel retailers desire unique, innovative and differentiated products (SanFilippo, 2005). Spa and luxury markets give towel suppliers their design inspiration and the saturated solid towel category is accelerated by employing new technologies such as new yarn fabrications and new finishings (Corral, 2005).

While white towels are considered as core products, there is also a trend towards a variety of bright colors as people are looking for something new, exciting, and different (Peterson, 2005). The climbing global competition leads towel producers to focus on new designs, such as the introduction of these new colors that were unusual for towels (Neelly, 2004).

Pricing

Towel pricing is a function of several factors such as the size and weight of the towel, the grade of cotton fiber used and markup of each retailer (Leizens, 2004). Upland cotton is considered as the standard grade of cotton used for opening-price-point towels. California comes after Upland, then Pima, Supima, and Egyptian. When low-twist spinning technology is applied, the price and softness becomes higher compared to those yarns produced by conventional methods (Leizens, 2004).

There are other considerations beyond price when purchasing. The U.S. terry towel imports have grown 275% between 1989 and 2003. Turkey has been gradually expanding its share of towel shipments despite prices exceeding the world average by an average of 179% between years 1989-2002. From 1989 to 2003, Turkey climbed from 22nd to 5th among foreign suppliers of terry towels. Turkish bath towels are sold by catalog retailers at prices well above the US average due to their quality ("Competition among," 2003).

Turkey's Position in the Global Towel Market

Turkey is one of the largest producers of textiles and apparel. In 2003 the Turkish apparel industry was the fifth largest supplier in the world market, and the second largest in the European market. In 2010, Turkey's target is to increase its production level to US $67.5 billion, of which US $34.8 billion will be exported (Kanoglu & Ongut, 2003). Turkey was the 19th textiles and apparel exporter to the United States in the first nine months of 2005 ("US Current," 2005).

Turkey is one of the world's leading towel producers by volume and by value. The terry towel is also known as 'Turk Fabric', 'Turkish Toweling, or 'Turkish Terry' (Yilmaz et al, 2005). In Table 7, the top towel exporters in Category 363, which is cotton-dominant towels, in 2005 to the United States, on volume basis, and their import amounts for the first eleven months of 2005 and 2004 and for the full year 2004 are shown.

Table 7.
Top Ten Cotton Towel Exporters to the United States for the First Eleven Months of 2005 on Quantity Basis

Country	Number of Imports (0.4 square meters per unit)			
	11 months 2005	11 months 2004	% change	2004
World	602,696,212	439,276,419	37.20	477,136,180
Pakistan	165,121,961	65,935,721	130.3	76,126,407
India	104,665,044	78,655,503	22.07	93,642,035
China	81,833,243	21,610,720	311.8	21,477,205
Brazil	62,067,711	44,099,389	40.75	46,562,267
Turkey	36,671,670	30,904,952	18.66	34,444,685
Bangladesh	33,998,662	43,937,834	-22.62	47,491,774
Thailand	24,722,709	31,453,894	-21.40	35,310,572
Vietnam	15,479,791	19,381,366	-20.13	20,545,290
Sri Lanka	14,166,998	9,799,498	44.57	10,890,988
Israel	12,808,951	13,052,901	-1.870	14,159,410

Note. From *Major Shippers Report Category 363 Cotton Terry/Other Pile Towels*(2006). OTEXA. Retrieved 01-10- 2006, from http://www.otexa.ita.doc.gov/msr/cat363.htm

Turkey had the 6^{th} rank among top towel exporters to the U.S. in the year 2004 and the 5^{th} in the first 11 months of 2005 ("Major shippers," 2006). Turkey's import amount in the first eleven months of 2005 increased 18.66% compared to the first eleven months of 2004. In the meantime total towel import to the U.S increased by 37.20%, whereas Turkey's total textile export to the U.S. made 1.6% decrease in amount for the first nine months of 2005 compared to the first nine months of 2004 ("U.S. Imports," 2005). These data illustrate that Turkey holds a stronger share in the towel market compared to other sections of the textile market. It is important to note that the biggest increase (2004-2005) was achieved by China (311.8%). Most of the towel import increases were realized from Asian Pacific countries. In general these countries compete on a cost basis as can be seen from Table 9.

Table 8 presents the top 10 towel exporters in the first eleven months of 2005 to the U.S., on value basis, are shown and their import amounts for 2004 and the first eleven months of 2005. Turkey had the 4^{th} rank among top cotton towel exporters to the U.S. in the year 2004 and 5^{th} in the first eleven months of 2005 ("Major shippers," 2006b). Turkey's export value in the first eleven months of 2005 increased 36.30% compared to the first eleven months of 2004. In the meantime, total towel import to the U.S. increased by 27.34%. The biggest increase was achieved by China as 147.6% (compared to 311.8% increase in volume basis), which means China decreased the cost per square meter equivalent (SME) considerably during 2005.

Table 8.
Top Ten Towel Cotton Exporters to the United States for the First Eleven Months of 2005 on Value Basis.

Country	Million $			
	Eleven months 2005	Eleven months 2004	% change	2004
World	1018.263	799.643	27.34	871.663
India	203.590	166.258	22.45	181.737
China	163.889	66.197	147.6	70.814
Pakistan	156.064	115.331	35.32	123.276
Brazil	143.340	103.374	38.66	112.115
Turkey	118.701	87.086	36.30	97.250
Thailand	44.861	50.436	-11.05	55.782
Portugal	26.607	16.802	58.35	19.366
Bangladesh	24.556	32.904	-25.37	35.382
Canada	20.057	29.248	-31.43	31.097
Israel	18.027	18.964	-4.940	20.428

Note. From *Major Shippers Report Category 363 Cotton Terry/Other Pile Towels*(2006b). OTEXA. Retrieved 01-10-2006, from http://www.otexa.ita.doc.gov/msr/catv363.htm

In Table 9, the top 10 towel exporters' dollar values per unit towel for square meter equivalent (SME) data are given for the first eleven months of 2004 and 2005 and the full year 2004. In the first eleven months of 2005, Turkey has the highest SME among the exporters at $8.02 and Sri Lanka has the lowest at $1.10, which is followed by Bangladesh at $1.79. During 2005 China, Pakistan and Sri Lanka reduced the SME by 40%, which is a very significant amount.

The import trends of the United States can be visualized by Figure 2. In Figure 2, the cotton towel exports of the eight exporters which took place in top ten exporters in both value and volume basis to the United States are shown.

Table 9.
Costs per Square Meter Equivalent of the Top Ten Cotton Towel Exporters in the First Eleven Months of 2005

	11/2005	11/2004	% change	2004
Country	SME ($/unit)			SME ($/unit)
World	4.24	4.53	-6.3	4.57
Pakistan	2.34	3.97	-41.1	4.05
India	4.94	4.80	2.9	4.85
China	5.07	8.36	-39.4	8.24
Brazil	5.81	5.72	1.6	6.02
Turkey	8.02	7.04	13.9	7.06
Bangladesh	1.79	1.86	-3.6	1.86
Thailand	4.56	4.03	12.9	3.95
Vietnam	2.48	2.42	2.7	2.44
Sri Lanka	1.10	1.92	-42.7	1.99
Israel	3.50	3.66	-4.3	3.61

Note. Table Figures Calculated using data from "Major shippers" (2006) and "Major shippers" (2006b)

Table 10 shows the towel exports of Turkey in the years 2003, 2004, and the first nine months of 2005. In year 2003 the total towel export volume was more than 66,310 tones with the value of 455.3 million dollars. These figures increased by 8.8 and 22% respectively to 72,160 tones and 553.2 million dollars. The increase in the value is more than twice the increase in volume, which refers to an increase of cost per SME. Between the first nine months of 2004 and 2005 the export figures continued to rise by 19% in volume and 15% in value; hence a slight decrease of cost per SME occurred.

Category 363-Cotton Terry & Pile Towels

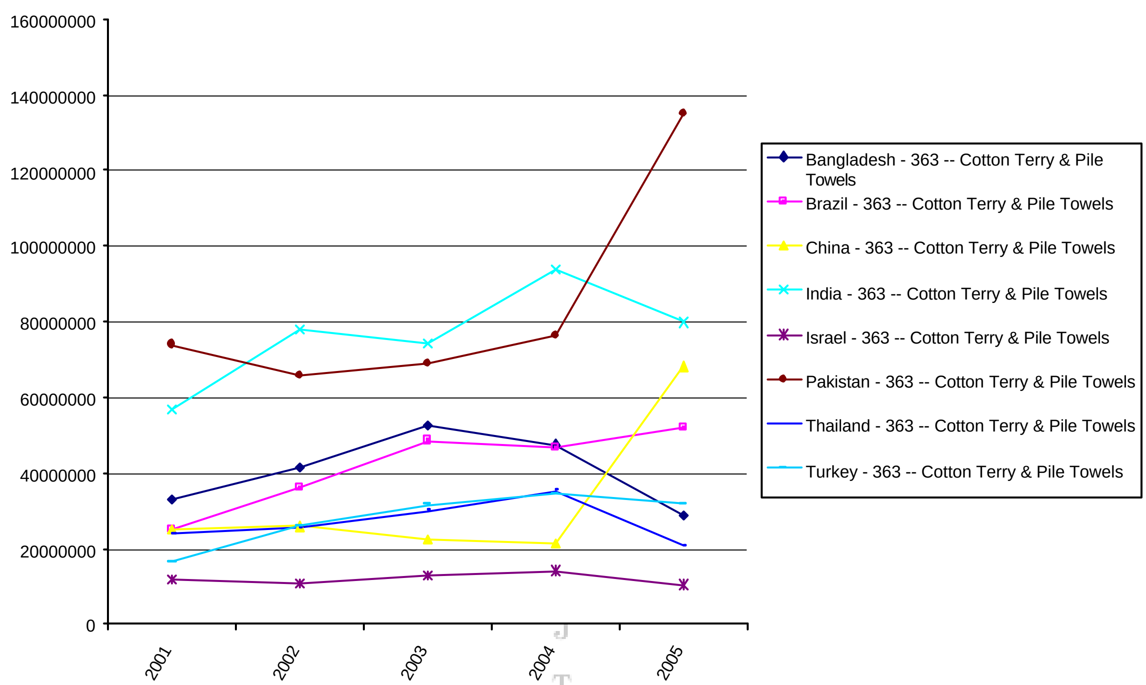

Figure 2: The Volumes of Cotton Towel Imports (Number of Imports (0.4 square meters per unit)) of the United States from Top Exporters ("Major shippers," 2006& 2006b).

Table 10.
Towel Exports of Turkey in 2003-2005

9/2005		9/2004		Change%		2003		2004		Change %	
1000kg	$1000	1000kg	$1000	KG	$	1000kg	$1000	1000kg	1000$	KG	$
51,880	395,150	61,560	455,710	19	15	72,160	553,210	66,310	455,310	8.8	22

Note. From *Home textile export of Turkey (2003 - 2004)*(2005). DETKIB (Union of Turkish Exporters of Textiles and Apparel) and *Home textile export of Turkey (2004-2005 January-September)*(2005). DETKIB (Union of Turkish Exporters of Textiles and Apparel)

In Figure 3, Turkey's ranking of foreign cotton towel suppliers to the U.S. for years 1989 to 2005 is shown. Turkey climbed from 22nd rank in 1989 to 5th rank in 2005 on volume basis.

Figure 3: Turkey's Rank among Foreign Cotton Towel Suppliers to the United States on Volume Basis. (Cassill, 2005; "Major shippers," 2006)

Figure 4 illustrates $ per SME of towels imported to the United States from Turkey and the world average. It can be clearly seen that Turkish towels prices per SME are well above the world average. The highest prices were reached in 1991 and 1996 which are above $13 per SME. For 2005, the SME values are $8.02 and $4.24 for Turkey and the world average respectively. Turkish towel prices are nearly two times that of the world average for that year.

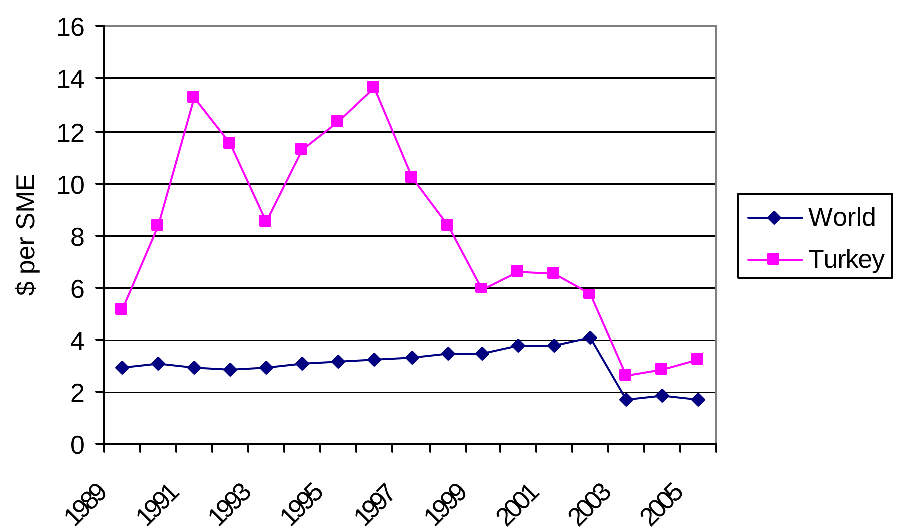

Figure 4 $ per SME of Turkey's Towels and World Average for imports to the United States (Cassill, 2005; "Major shippers," 2006, and "Major shippers," 2006b)

Turkey had a currency devaluation in 1994 which had an impact on towel prices per SME. By the third month of 1995, Turkish Lira was devalued by 270% with the average annual inflation rate of 106.5% (Arican, 2005). During 2001, Turkey had another economical crisis when the annual inflation rate reached 69% (“Economy,” 2006). However, this crisis did not have an apparent impact on the towel prices which may evidence the improvement of the strength and stability of the industry and its market share in the years between.

Implementation of Porter’s Diamond on Turkish Towel’s Global Competitiveness

The mutually reinforcing character of the components of Porter’s “Diamond” (1990) causes the international competitiveness in a particular industry to be stable due to the fact that a leading position in an industry segment will build upon itself by strengthening its own "diamond" and will tend to become ever more firmly established over time. The four corners of the diamond (Factor Conditions, Demand Conditions, Related and Supporting Industries, and Firm Strategy, Structure, and Rivalry) are multi-faceted (Gray, 1991).

Factor Conditions

The first corner of “Porter’s Diamond” consists of factor conditions which give the quality of resources used to produce goods and services (Pressman, 1991). The factor conditions of Turkish towel production are investigated in infrastructure, raw material and human resources segments.

Infrastructure.

Textiles and apparel constitute one of Turkey's largest industries. Turkish textile exports had an annual increase rate of 10.2% between years 1996 and 2006 (“Turkish Textile,” 2007). Textile and apparel export constituted a share of 24% of all exports in 2006 (“The export,” 2007). The textiles and apparel industry accounted for 6% of GDP, 18% of industrial production, 19% of manufacturing output (Ercan, 2002).

Since Turkey initiated a financial liberalization process in 1980 (Arican, 2005), the textile infrastructure and textile expertise improved greatly. Turkey’s textile expertise is supported by numerous vocational schools and courses supported by the government or institutions of civil society (“2006 export,” 2007). The textile and apparel industry in Turkey invested more than $50 billion on European Union technology and import expertise. Turkey has one of the highest spinning, weaving, dye-finishing and apparel production capacities in the world (Kanoglu & Ongut, 2003).

Turkey exports 75 percent of its textiles and apparel products to the European Union -with Germany procuring 28 percent of total Turkish textile/apparel exports. The United States imports 12 percent of all Turkish exported apparel and textile products (“Apparel and textiles,” 2005). Of the total exports of the country (to the United States plus the rest of the world), distribution according to different categories of products is 50%: knitted products, 36%: woven products, 15%: other made up articles, like home textiles, and other products (“Apparel and textiles,” 2005).

Raw materials.

Turkey has domestic supplies of raw cotton, cotton yarns and fabrics (“Textiles and apparel,” 2004). It holds 4% of the world’s cotton production and is ranked 7th among the biggest cotton producers in 2004-2005. However, as its consumption of cotton fiber exceeds the production, Turkey is a net importer of cotton (Borneman, 2006).

The costs for electricity are really high. User prices of electricity in Turkey are 45% above the United States levels, due to the low productivity of the state owned monopolies which hold the control of electricity, the effect of fuel prices, thefts and losses, and concessions ("Turkey: making," 2003).

Human resources.

The Turkish textiles and apparel production workforce is relatively economical, flexible, and highly skilled due to years of expertise in this area. Thanks to the expertise and the strong workforce, the industry also reduced the lead times to weeks, thus providing a quick response to the market (Ercan, 2002). These features help to produce towels in high quality and in short lead times.

Demand Conditions

Traditional demand conditions are related to how the demand of domestic buyers can function as a means of establishing a quality advantage (Gray, 1991). Turkish consumers, traditionally, are demanding, and this pushes the textile industries to upgrade further. Turkish markets are far from being mature, and have a considerable potential increase in demand (Oz, 2002). Turkey is a developing country which has a large and rapidly growing population of 72.9 million (in 2006) with an estimated annual growth rate of 1.3% in 2004. The real GDP of Turkey grew an average of 7.5% per year from 2002 through 2006 which makes it to have one of the highest sustained rates of growth in the world. This growth is expected to be about 6.1% in 2007. ("Background," 2007).

Related and Supporting Industries

The presence of related and supporting industries is an important determinant of creation and sustainability of competitive advantage according to Porter (Oz, 2002). Given the focus on advanced goods, it is no surprise that most of the benefits described are broadly technological. Some advantages from a similarity of language and culture among firms within an industry segment are also recognized (Gray, 1991).

Turkey has an integrated and diversified textile and apparel sector, active in every segment of the supply chain, particularly cotton manufacturing (Ercan, 2002). This strong integration among textile and apparel industries provides benefits to the towel industry from the cluster effect.

Turkish short staple ring spinning and rotor capacity are 90% and 75% of that of West Europe. Turkey holds 80% of European shuttle loom capacity, and 27% of European shuttleless loom weaving capacity. It holds one of the biggest dyeing-finishing and apparel production capacities in Europe. These figures show that Turkey has the whole value chain for home textile production and a very strong one (Kanoglu & Ongut, 2003).

In Turkish economy, small and medium sized enterprises play an important role. In the manufacturing industry, the small and medium sized enterprises share in the number of enterprises is 99.5%, and its share in the employment in the production industry is 61.1%. The number of textile and apparel companies was about 49,000 in January 2001. The size of the textile and clothing workforce Turkey is estimated at 2 million employees (Smid, & Taskesen, 2002).

After the 1980 liberalization, Turkey strengthened the existing clusters, the most noteworthy one of which is the textiles/apparel industry (Oz, 2002). The major towel cluster in Turkey is in Denizli city, which has been a city famous for its textiles for centuries. In 2005 it exported towels with the value of more than $403 million, which is 16% higher than its 2004 value of more than $347 million when it accounted for 63% of Turkey's total towel export. Towels constitute the highest share among Denizli's total textile and apparel exports as 40% of total $1 billion textile and apparel exports in 2005. Denizli contains all stages of the home textiles value chain ("About Denizli," 2006).

The technology parks form the technology producing part of the value chain and strengthen the home textile clusters. Turkey has been building technology parks that are dedicated to developing new products and processes for the textile industry including new yarn treatments, technical textiles, weaving, dyeing and finishing techniques which support its home textiles industry (”Beyond China,” 2005).

Firm Strategy, Structure and Rivalry

Due to high domestic rivalry, Turkey has a very dynamic, committed and competitive textile industry. This fact leads to higher quality, lower cost compared to western countries, and quick turnover in production of towels and better competitiveness in the global market (Oz, 2002).

Other Factors

Numerous factors are affecting Turkey’s competitive advantage in towels. Turkey is the first country which is a candidate for the European Union (EU) that has a realized Customs Union. It has duty-free access to the EU Market to which it has also proximity. This situation affects its towel exports to EU Market (Ercan, 2002).

The profitability of towel exporters is affected by the fluctuations in exchange rates and taxes. The weak US Dollar is causing a loss of revenue to the exporters. High taxes on labor, about 40%, are increasing costs for Turkish manufacturers (Erdem, 2006).

The Turkish textile and apparel exports were insulated by the international textile/apparel quota regime from potential shocks attributed to competition from lower cost producers in the East Asia Pacific region. Elimination of quotas has been the most important problem the industry faced so far (Erdem, 2006). Due to the elimination of quotas, Turkish towels are now facing much more fierce competition in the global market coming from countries competing on a cost basis.

Turkey does not have free trade agreements with the U.S. In a survey United States International Trade Commission made in 2004, several U.S. retailers and apparel suppliers indicated that Turkey was less attractive from a cost standpoint because of this situation (“Textiles and apparel,” 2004).

According to industry sources, shipping time from Turkey to the United States is comparable with that from East Asia, at about 14 days. Turkey does not have the proximity advantage to the US Market that Canada and Latin American countries have (“Textiles and apparel,” 2004), whereas Turkey has this advantage of proximity to the European Union. Turkey is now one of the leading non-EU apparel exporters to the EU. Finally, the collapse of the Soviet Union and the resulting trade liberalization in ex-Soviet and Central and Eastern European countries opened new doors for Turkish home textiles exports (“Turkey: making,” 2003).

Marketing Strategies

Turkey’s Current Marketing Strategies

Turkey’s advantages in the global towel market are partly due to the marketing strategies. Establishing an agent in New York, market positioning as “up market”, capitalizing on the strength of “Turkish Cotton” and brand equity “Turkish Towels”, and building relationships with retail customers are among ongoing efforts in marketing of Turkish towels (Cassill, 2005). Turkey is trying to build a sophisticated and vertically integrated industry characterized by innovation, skill sets and a commitment to advanced flexible manufacturing processes (“Beyond China,” 2005).

Opportunities for Turkey’s Marketing Strategies

Branding, product differentiation, specialization, vertical integration and consolidation hold the keys to global success (“Beyond China,” 2005). So, in order to succeed in global competition, Turkey's strategies should be on the following issues:

Branding

A specific area of concentration for gaining competitive advantage has been on branding as a means of textile and apparel differentiation ("Textiles industry" (2004); Kilduff, P., & Priestland, C. (2001); Parrish, E. (2003)). Turkish towel producers should understand retailers' quality standards, and be good at designing new products ("Beyond China," 2005).

The Turkish home textile industry is still at the lower end of the value chain: assembly (sewing) and original manufacturing. At this level, Turkey is competitive. However, the major profits come to the upper end of the apparel value chain which is original design (ODM) and original brand manufacturing (OBM). In these segments, brand equity value - both generic (country of origin) and specific - accounts for an enormous portion of value-added. So, Turkish home textiles should focus on ODM and OBM to benefit from the extra value they provide ("Turkey: making," 2003).

Product Differentiation

Turkey has a good reputation in the global market. In the highly competitive atmosphere of the global market to obtain a strong position, to further strengthen this reputation and to maintain it, Turkey should focus on increasing the quality and enhance the value that consumers get rather than focusing on mass production and reducing the costs. So the goal should be to make "Made in Turkey" a major source of value-added premium ("Turkey: making," 2003).

Specialization

Product and labor specialization are crucial for clusters. The product specialization stimulates and enhances product differentiation, increases the flexibility of the productive process, whereas labor specialization increases quality, productivity, implementing time-saving methods and processes. With both product and labor specialization Turkey can respond to variable market conditions to obtain competitive advantages (Pietrobelli, & Barrera, 2002).

Vertical Integration

Buyers are looking for specialized, one-stop-shop, expert and vertically integrated suppliers. Vertical integration has some advantages in outsourcing such as the ability to make full package production, flexibility, and attracting quick response business by lowering the lead times. To achieve these, the producer firms should vertically integrate. Turkey's home textiles industry should strengthen its position as a vertical producer of home textile producer with a full package solution ("Beyond China," 2005).

Consolidation

Turkey will need to invest more to lower the cost of production and lead times and to raise quality by improved manufacturing processes in order to compete in the international markets, especially after the quotas have been lifted (Erdem, 2006).

Politics

Turkey would be a more attractive towel supplier if it had free-trade agreements with the U.S. from a cost standpoint, as the interviews of United States International Trade Commission (USITC) with some US importers evidence ("Textiles and apparel," 2004).

Summary

In summary, Turkey is a global competitor in towel production with exports increasing. It is important to note that Turkey's exports have increased on both value and volume bases despite its price per SME being substantially higher than the world average. Turkey is a value-added leader in towels. Turkey has a strong textile and apparel industry structure which provides a competitive advantage in the global market. Turkey is well positioned to continue to compete in the global area and be a major supplier of towels. To sustain its place and to enhance it, Turkey should strengthen the elements of Porter's "Diamond" which determine the global competitiveness of this sector (1990).

REFERENCES

2006 export performance evaluation of apparel manufacturing sector(2007). ITKIB (Istanbul Textile and Apparel Exports Association). Retrieved 07-08-2007 from http://www.itkib.org.tr/ihracat/DisTicaretBilgileri/raporlar/dosyalar/2006_konfeksiyon_yillik_rapor.pdf

About Denizli. economy(2006). DETKIB (Union of Denizli Textiles and Apparel Exporters) Retrieved, 01-23-2006, from http://www.detkib.org.tr/turkce/denhak.htm

Andersena, T. M., & Herbertsson, T. T. (2005). Quantifying Globalization. *Applied Economics*, *37*(10) 1089-1098.

Antimicrobial fibre for hygienic toweling.(2004). Technical Textiles International. *13*(4), 5-5.

Apparel and Textiles Industry Statistics (2005). Plunkett Research. Retrieved 11-10-2005, from: http://www.lib.ncsu.edu:2860/Statistics/Default.aspx?Industry=23

Arican, E. (2005). Relation between financial liberalization and foreign currency crises in turkey: An application in terms of foreign currency crises (1990 - 2004). *Journal of American Academy of Business, Cambridge*, *7*(2), 236-246.

ASTM (2003). *ASTM D123-03 standard terminology relating to textiles*, Retrieved 06-15-2005, from http://www.ihserc.com/specs3/controller/controller;jsessionid=www.ihserc.com-10e1%3A432ee2b3%3A1dccfcf3ab1cdc?event=NAV_CONTROLLER&wl=1&n=1005&sess=236207712&prod=SPECS3

Background note: Turkey.(2007). *Background Notes on Countries of the World: Republic of Turkey*, 1-8.

Bamboo towels reach new level of softness.(2006). *Consumer reports*, *71*(10), 6-6.

Beyond China. (2005). *Just Style.* Retrieved 10-08-2005, from: http://www.just-style.com/features_detail.asp?art=941&lk=rss

Borneman, J. (2006). Cotton by the numbers. (cover story). *Textile World*, *156*(2), 28-30.

Cassill, N. (2005). The new global competitive textile and apparel marketplace: future opportunities and challenges. *2005 Seoul International Clothing & Textiles Conference*

Coleman, J. (1986). *Note on comparative advantage*. Cambridge, MA: Harvard Business School Publishing.

Competition among foreign suppliers: Price isn't the whole story. (2003). Cotton Incorporated. *Textile Consumer Volume*, Retrieved, 06-07-2005, from http://www.cottoninc.com/TextileConsumer/TextileConsumerVolume30/?Pg=33

Corral, C. B. (2005). Product innovations drove strong bath market. *Home Textiles Today*, *26*(39), 10-10.

Corral, C. B. (2007). Santens of America shuts down. *Home Textiles Today*, *28*(14), 2-2.

Davies, H., & Ellis, P. (2000). Porter's competitive advantage of nations: Time for the final judgement? *Journal of Management Studies, 37*(8), 1189-1213.

Economy.(2006). *Turkey Country Profile,* 10-13. from: http://www.lib.ncsu.edu:2066/login.aspx?direct=true&db=buh&AN=19734533&site=bsi-live&scope=site

Ercan, E. (2002). Changing world trade conditions force the Turkish textile and apparel industry to create new strategies. *Journal of Textile Technology and Apparel Management, 2*(4). Retrieved 01-01-2006, from: http://www.tx.ncsu.edu/jtatm/volume2issue4/vo2_issue4_abstracts.htm

Erdem, S. (2006). Turkish industry battles growing china threat. *WWD: Women's Wear Daily, 191*(6), 9-9.

Gereffi, G. (1997). Global shifts, regional response: Can North America meet the full-package challenge. *Bobbin*, *39*(3), 16-25.

Gray, H. P. (1991). International competitiveness: A review article. *International Trade Journal*, *5*(4), 503-517.

Grimwade, N. (2000). *International Trade: New Patterns of Trade, Production and Investment* (2nd ed.). London, Routledge.

Harrigan, K. R. (1984). Innovation within overseas subsidiaries. *Journal of Business Strategy*, *4*(4), 47-55.

Heckscher, E. F. & Ohlin, B. (1991). *Heckscher-Ohlin Trade Theory* (Flam, H. & Flanders, M. ed.). Cambridge, MA: The MIT Press.

HFN shopping textiles -- A consumer report. (1999). *HFN: Home Furnishings News, 73*(38) 9-9.

Home Textile Export of Turkey (2003 2004)(2005). ITKIB (Union of Turkish Exporters of Textiles and Apparel)

Home Textile Export of Turkey (2004-2005 January-September)(2005). ITKIB (Union of Turkish Exporters of Textiles and Apparel)

Kanoglu, N., & Ongut, C. (2003). Textile and apparel industries in the world and Turkey and the competitive power of Turkey (in Turkish). Retrieved, 10-05-2005, from: http://ekutup.dpt.gov.tr/imalatsa/tekstil/kanoglun/rekabet.pdf

Kilduff, P., Priestland, C. (2001). Strategic Transformation in the US Textile and apparel Industries: A Study of Business Dynamics with Forecasts up to 2010. *Study conducted by North Carolina Textile Foundation*.

Lazaro, M. (2003). Searching for the Softest Towel. *Home Textiles Today, 24*(24) 8-8.

Leizens, L. (2005). Market getting softer for towel suppliers. *The Weekly Newspaper for the Home Furnishing Network, 79*(14) 18-18.

Leizens, L. (2004). Buying towels – A touchy situation. *The Weekly Newspaper for the Home Furnishing Network*, *78*(17), 12-12.

Macy's (2005). Bath towels catalogue. Retrieved 11-29-2005, from: http://www1.macys.com/catalog/index.ognc?CategoryID=8238&PageID=8238*1*12*-1*-1&kw=Bath%20Towels&LinkType=CatDrop

Major Shippers Report Category 363 Cotton Terry/Other Pile Towels(2006). OTEXA. Retrieved, 01-12-2006, from: http://www.otexa.ita.doc.gov/msr/cat363.htm

Major Shippers Report Category 363 Cotton Terry/Other Pile Towels(2006b). OTEXA. Retrieved, 01-12-2006, from: http://www.otexa.ita.doc.gov/msr/catV363.htm

Neelly, R. (2004). Rumors to the contrary, it's a banner year for towels. *Wearables Business*, *8*(6), 38

Oz, O. (2002). Assessing Porter's framework for national advantage: the case of Turkey. *Journal of Business Research, 55*(6), 509-515.

Parrish, E. (2003). *Niche market opportunities in the global market place.* Unpublished PhD Dissertation, North Carolina State University.

Peterson, E. (2005, April 1). Towels & robes towels get personal; robes trend high-end. *Wearables Business,* 32.

Pietrobelli, C., & Barrera, T. O. (2002). Enterprise clusters and industrial districts in Colombia's fashion sector. *European Planning Studies, 10*(5), 541-562.

Porter, M. E. (1990). *Competitive Advantage of Nations*. New York: Free Press.

Posner, M.V. (1961). International Trade and Technical Change [Electronic Version]. *Oxford Economic Papers, 13*(3), 323-341.

Pressman, S. (1991). The competitive advantage of nations (book). *Journal of Management, 17*(1), 213-215.

Ricardo, D. (1817). *The Principles of Political Economy and Taxation.* London: Everyman's Library.

Sanfilippo, M. (2005). Surface interest key in bath towels. *Home Textiles Today*, *26*(35), 4-4.

Sanfilippo, M. (2005b). Specialty fibers, weaves and finishes rev up towels. *Home Textiles Today*, *27*(8), 1-23.

Sasi, A. (2005). Indian textile exporters eyeing brands in US, EU. *Businessline*. Chennai Mar 13, 1-1.

Smid, S., & Taskesen, F. (2002). *Textile, apparel and leather sector in Turkey* No. Dossier: 00.068 Reference: 0326.02)PWC Consulting. Retrieved 07-08-2007, from http://ec.europa.eu/enterprise/enlargement/doc/turkey-textile.pdf

Tatcher, M. (1997). Ace of diamonds. *People Management, 3*(21), 36-38.

Textiles and apparel: assessment of the competitiveness of certain foreign suppliers to the U.S. market. Investigation No. 332-448, Publication 3671(2004). USITC (United States International Trade Commission).

Textiles industry survey(2004). Standard & Poor's. *Monthly Investment Review,* January.

The export performance of textile sector annual evaluation 2006(2007). ITKIB (Istanbul Textile and Apparel Exports Association). Retrieved 07-08-2007, from http://www.itkib.org.tr/ihracat/DisTicaretBilgileri/raporlar/dosyalar/performans_tekstil_aralik_2006.pdf

The fine art of drying. The latest towels are wrapping up consumers in luxury, comfort and style. (2003). Cotton Incorporated. *Lifestyle Monitor*, Retrieved, 06-07-2005, from: http://www.cottoninc.com/lsmarticles/?articleID=71

Turkey: making the productivity and growth breakthrough (Executive summary)(2003) MGI . Retrieved 0-10-2006, from: http://www.mckinsey.com/mgi/publ ications/turkey/executive_summary.asp

Turkish textile sector(2007). ITKIB (Istanbul Textile and Apparel Exports Association). from http://www.itkib.org.tr/ihracat/DisTicaretBilgileri/raporlar/arastirmaraporlari/tanitim_teksti.pdf

US Current industrial records- bed and bath furnishing (2005). U.S. Department of Commerce. Retrieved, 08-01-2005, from: http://www.census.gov/cir/www/314/mq314x.html

U.S. Imports of Textiles, Textile Products and Apparel, Top Trading Partners Top Countries Based on Current Month (2005). U.S. Department of Commerce. Retrieved 10-08-2005, from: http://www.census.gov/foreign-trade/statistics/country/sreport/country.txt

Vernon, R. (1966). International investment and intern0atio nal trade in the product cycle. *The Quarterly Journal of Economics*, *80*(2), 190-207.

What A difference A year makes. (2005). *Home Textiles Today*, *26*(45), 8-8.

Yilmaz, N. D., Powell, N., & Durur, G. (2005). The technology of terry towel production. *JTATM*, *4*(4), retrieved 01-01-2006, from: http://www.tx.ncsu.edu/jtatm/volume4issue4/vo4_issue4_abstracts.htm