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## ASSESSMENT OF QUALITY REQUIREMENT AND IMPORTANCE FOR TEXTILE INDUSTRY IN TURKEY

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### ABSTRACT

Today's competitory disposition of business obligates companies to implement an extensive business quality control system that highlights sustainable improvement of quality and productivity. In every sector, it is significant to support industries, meet the quality requirement of current's market by providing and improving the quality control policy. Management development of work structures and frameworks should be involved in quality oriented production and quality control strategy. This topic should be supported by top management dedication to increase the quality level of production as a business policy and strategy within supportive resources. It is now generally accepted that textile is a fabric which made from fibers but the fibers may either be converted into yarn firstly and then the yarns put unitedly in one of a diversity of methods to make fabrics or the fibers can be altered directly into a fabric. The textile sector is selected as a research area in this study, because this is one of the most requirement and fundamental industries for households and populations. In this study, the integration steps of Quality Oriented manufacturing is highlighted in the textile sector. An industrial perception is presented in the scope of this research. In addition of this, an overview of textile industry in Turkey will be presented and an approach for the importance of quality oriented production in garment industry is emphasized and is declared its strengths, opportunities, threats and weaknesses aspects according to the business quality policy.

**Keywords:** Consumption, industry, quality, production, swot, textile.

### 1. INTRODUCTION

Textile is declared that it includes clothing material such as fur, leather, suede and unsupported plastic sheeting. The first three items are natural materials and made form fibers although the fibers as fur can be detached from the skin and used as textile fibers. Leather and suede are fibrous in structure but the fibers have no separate identify in a textile sense and plastic sheeting has no fiber content at all. Fur, leather and suede can be simulated in textile structures and in combinations of textile and plastic materials (Potter and Corbman, 1967; Miller, 1995).

#### 1.1. Textile Industry in the World in Turkey Particularly

From the middle of the century onwards, the textile industry has played a key role in initial industrialisation process in most countries. This is not surprising, given the combination of a large domestic demand (clothing being a basic necessity) and the early success at mechanising textile production. Textile industry of Turkey has the biggest share in Turkish foreign trade.

Turkey is the sixth largest producer of cotton yarn in the world and the producer of the world's finest cotton, Turkey was Europe's number one supplier of ready-wear clothes in 1995. This has a huge internal market with a population of 65 million having a potential purchasing power of five thousand and five hundred dollars per capita. The apparel market in Turkey is valued at 25 billion dollars, which accounts for 38 per cent of the country's total foreign trade and eight per cent of the gross national product (GNP), a highly attractive prospect for the global textile industry. Since the industry has the largest export/production ratio in the manufacturing industry, much importance is given to this industry in the seventh five-year development plan (Turkey in Statistics, 1997).

## 1.2. The Stages of Study

This research will be handled in three main stages. The first stage is literature survey. The sources are mainly gathered via technical reports and books. The second stage is an overview of textile industry in Turkey. The third stage is the analysis of the information gathered with Industrial overview. The base of literature survey begins with an overview of the concept of textile. The main steps of overview of textile industry in Turkey are as follows:

1-Current situation of textile and ready-made sectors in Turkey.

2-Textile and ready made sectors' trade relations with certain countries.

The existing and future importance of the clothing industry in Turkey's potential exports increases the essence of this research. Such a detailed study of the sector is a good example in the field.

## 2. OVERVIEW OF TEXTILE INDUSTRY IN TURKEY

Turkish textile sector whose past goes to 1920s, is developed in the leadership of government until 1950s. In the 1938 regenerated cellulose, after 1960s synthetic fiber production is begun. Private sector entered cotton thread production in 1960s and synthetic thread production at 1970s. In the first years of Republic, Turkey was the fiber exporter, thread, fabric and ready-made importer. She began to be textile exporter after 1950s, ready-made exporter after 1970s (Gazanfer, 1995). In 1950s textile sector, and in the first years of 1970s ready-made sector began to develop according to the internal market demand and conditions. With their cheap raw material and labor advantages they began to have an important position in Turkey's economy in 1980s. Free trade and the adoption of the right trade policies resulted textile and ready-made sectors to the locomotive sector.

### *Historical Development of Commerce in Textile & Ready-Made Industries*

-9.8 percent of Turkey's 1995 yearly total export income come from textile sector and 28.6 percent come from ready-made sector. The share of textile and ready-made sectors in Turkey's total export is 38.5 percent.

-Turkey is the second textile and ready-made supplier of European Community. According to 1994 statistics Turkey is the 8th supplier in textile and 15th supplier of ready-made of USA.

-Textile and ready-made production is 14 percent of total manufacturing industry, 13 percent of total industrial production and 10 percent of Turkey's total production.

-There are 123 textile and ready-made from among the 500 biggest industrial organisations in Turkey.

-As of September '96 there are 143 out of 800 foreign capitalised firms in textile and ready-made sectors (110 textile-made, 33 textile). Ready-made sector is the second production in industry branch that foreign capitalised firms are interested after food industry.

The strong position held by textile and ready-made sectors is not only a success of modern integrated factories and firms that can market their own trade-marks but also then thousands of small and middle sized firms. These firms with a labor force under 200 are generally located in İstanbul, İzmir, Denizli and Adana organised under Textile and Ready-Made Exporters Unions. There are seven textile and ready-made Exporters Unions in İstanbul, İzmir, Denizli, Bursa, Antalya, Mersin, Gaziantep and they are bound to the Foreign Trade Councillor (Gazanfer, 1995; İstanbul ready- Annual Report, 1996; Annual Report, 1997). The development of textile and ready-made trade is also a result of the development of transportation and communication facilities in Turkey, the education on textile and ready-made and the growth of a generation that knows at least one foreign language.

### 2.1. Some Macro Economic Factors of Textile Sector

Textile and ready-made products has significant place in Turkish economy. The best indicator of this is the share of textile and ready-made sector in Gross National Income. Textile and ready-made has share of about 10 percent in Gross National Income (Turkish - Annual Report, 1997).

**Table 1: Ratio of Textile and T-Ready-Made Industry in Total GNP (Url-6; İstanbul ready- Annual Report, 1996)**

	1993 billion TL	1994 billion TL	1995 billion TL
Production of Textile & Ready-Made Industry	161,074	172,008	183,965
Total GNP	1,929,250	1,855,938	937,600
Ratio of Textile & Ready-Made Industry in Total GNP	8.3%	9.2%	9.4%

Textile and ready-made industry has also a vital share in total export of Turkey. This share is 36.6 percent in 1994 and 38.5 percent in 1995. According to the big share in Gross national income and big ratio in total export, macro economic developments affect textile and ready-made industry significantly, similarly developments in textile and ready-made industry significantly, similarly developments in textile and ready-made industry affect total economy. So the performance of the industry is closely related with the macro economic policies.

## 2.2. Sector Development and Position According to the Production and Consumption of Countries

In Turkey textile ready-made industry developed based on cotton cultivation and artificial-synthetic fiber production follows this. Cotton has always been a strategic raw material for Turkish economy. In the threshold of year 2000, the importance given total human health and environmental issue increases the value of textile products made of natural raw materials. For this reason, Turkey has an inherent advantage by being the sixth producer of cotton in world (Url1; Url 4; Basal and Sezener, 2012).

As seen in Table 2, while cotton production in the world has been around 26 million tonnes in recent years, In the 2015/16 season, it has decreased by 13% to 22.6 million tons compared to the previous year. In this hypothetical, Especially the decline in the production of countries such as China, USA and Pakistan has been effective. As it happens, that the largest cotton production in the world has been in China for many years, this situation has changed with the increase of cotton cultivation areas in India in recent years.

**Table 2: Main Cotton Producing Countries- World cotton Production (Url1; Url4)**

Country	2011/2012 (1000 tons)	2012/2013 (1000 tons)	2013/2014 (1000 tons)	2014/2015 (1000 tons)	2015/2016* (1000 tons)
India	6.001	6.095	6.770	6.510	6.240
China	7.400	7.300	6.929	6.480	5.260
USA	3.391	3.770	2.811	3.350	2.820
Pakistan	2.294	2.204	2.076	2.310	1.610
Brazil	1.884	1.261	1.705	1.550	1.550
Ozbechistan	880	1.000	940	890	860
Turkey	750	858	760	847	779
Australia	1.225	1.018	890	450	470
Others	3.459	3.332	3.402	3.543	3.051

Resource: ICAC Cotton (\*) Forecast ICAC Turkey Country Report

At present, India is the largest producer with 6.2 million tons of cotton production amount- value. This country is followed by China, USA, Pakistan. The result of the decline in production in Australia in recent years, Turkey has risen to seventh place in world cotton production (Url 4; Basal and Sezener, 2012).

**Table 3: Main Cotton Consuming Countries- World cotton consumption (Url2; Url 4)**

Country	2011/2012 (1000 tons)	2012/2013 (1000 tons)	2013/2014 (1000 tons)	2014/2015 (1000 tons)	2015/2016* (1000 tons)
China	8.635	8.290	7.531	7.520	7.330
India	4.340	4.817	5.042	5.360	5.520
Pakistan	2.217	2.416	2.271	2.510	2.220
Turkey	1.495	1.350	1.400	1.486	1.500
Brazil	888	910	879	800	800
USA	718	762	773	780	780
Others	4.748	4.504	5.599	5.994	5.911

Resource: ICAC Cotton (\*) Forecast ICAC Turkey Country Report

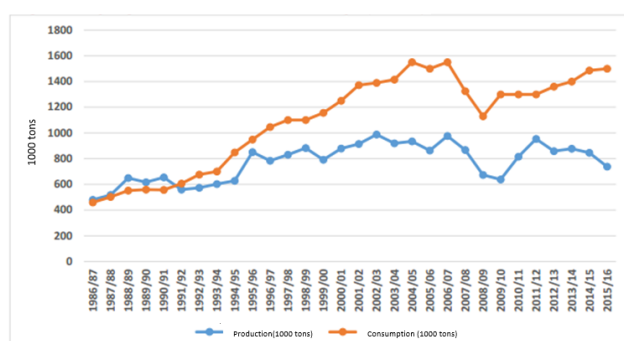
When Table 3 is examined, it is seen that the countries that consume the most cotton in the world are the countries that produce the most cotton again. Whether, world cotton consumption in the last 5 periods is in the range of 23-24 million tons, consumption in the 2015/16 season is estimated at 24.3 million tons. The biggest share of world cotton consumption is China, with 7.3 million tons (30% share). This country is followed by India and Pakistan. Turkey, on the other hand, is the fourth country that uses the most cotton with an estimated consumption value of 1.5 million tons. The decrease in sowing areas of cotton related to supporting policies and purchase price resulted fluctuation in cotton yield. Hence cotton supply is not enough (Debnath et al., 2016; Url 4; Table 4, State Institute of Statistics)

**Table 4: Cotton Production & Consumption in Turkey (Url2; Url 4; State Institute of Statistics)**

Years	Stock	Production (1000 Tons)	Consumption* (1000 Tons)	Difference	The ratio between Production and Consumption (%)
2011/2012	2.580	954	1.300	-346	73,3
2012/2013	2.320	858	1.360	-502	63
2013/2014	2.250	877	1.400	-523	62,6
2014/2015	2.350	846	1.486	-640	56,9
2015/2016*	2.050	738	1.500	-762	49,2

Resource: TUIK( Turkish Statistical Institute) (\*) Forecast

According to TURKSTAT data, in our country in 2015/16 season, with the production of 2.050 tons of cotton stock, it is estimated that the amount of cotton for this amount is 738 thousand tons. According to the average of the last 5 production seasons in Table 4, country cotton production accounts for 60% of consumption. While This rate is 73% in 2011/12 season, because of decreasing the amount of production and increasing the amount of consumption, it has dropped to 49% in the 2015/16 season. For longer years, the trend of production and consumption has been shown in the graphic above.

**Figure 1: The Trend of Cotton Production and Consumption in Turkey (Url 4; Url 5; State Institute of Statistics)**

In this figure 1, The amount of cotton production of Turkey is presented. Until the mid-1990s, Cotton production and consumption in Turkey show an increasing course at a level close to each other, since 1991/92 season, the consumption of cotton started to overtake production, with the 1995/96 period, the production and consumption seems to have begun increasing levels (Url 4; Url 5). After the 2002/03 period cotton production generally followed trendline-cruising, especially in 2008/ 2009, the negative effects on Cotton prices of the global economic crisis, it caused a sharp decline in the country's production, After the crisis period, production reached pre-crisis levels, but in the last three periods, a recurring trend-course has shown (Url 4; Url 5). In the 30-year period, fiber cotton production in Turkey by 54%, Consumption has been increased by 226%. On the other hand, according to the 2002/03 season where production is close to 1 million tons, while production is reduced by 25% in 2015/16, consumption is seen to increase by 8% (Url 4; Url 5).

### 2.3. Textile Made of Cotton : Current Situation of Textile Sectors in Turkey

Figure 1 and Table 5 show that until the period of global economic crisis of Turkey's cotton consumption, the textile sector has been increasing continuously due to its growth-expansion (State Institute of Statistics, Url 4). "Supporting Premium System" (paying producer 60 cents premium for one kg production) decreased the cost of cotton and increased the cotton export. While there is cotton scarcity in 93/94 season, the 60 cents fund for cotton export paid in 94, draw-backed the increase of the scarcity. And the increase over world market prices. The fund for cotton export is abolished by law in december 1995. The export of cotton that is not carded and doffed is restricted by a quota 150.000 tons.

**Table 5: Cotton Production & Consumption in Turkey (Periods of 1990-1996)**

Years	Stock	Production (Ton)	Consumption (Ton)
1990/91	102813	654600	540000
1991/92	100697	561227	625000
1992/93	87406	573706	625000
1993/94	212347	602238	700000
1994/95	124219	628286	850000
1995/96	137572	851487	900000

Cotton thread sector, weaving and ready-made sectors were affected negatively between 93 december and 95 november. This situation hurt the competitiveness of Turkey in international market especially for "basic" products like T-shirts. The production of cotton thread is 517,600 tons in 1993; 585,000 tons in 1994 and expected 1995 production is 610,000 tons which is enough to meet the demand (ITKIB- Istanbul ready, Annual report, 1996)

#### **2.4. Artificial and Synthetic Fibers and Textile -Textile Made of Cotton**

The history of artificial and synthetic fiber and textile begins with the production of regenerate cellulose at 1938. After the huge capacity increases between 1984 and 1987, the investments are decreased until 1990. In 1994 capacity increased by 20 percent over the former year. It is expected that in the next several years fiber usage will increase by 3.5 percent yearly and polyester has the highest potential. At present, Turkey has the 9th biggest capacity of synthetic fiber and thread production in world. But in artificial-synthetic weaving area the supply does not meet the demand.

Wool production of Turkey is 4.2 percent of the world fiber production and Turkey is one of leader countries in wool production. But the produced wool is not thin enough. Because of the intends to the fiber that have wool features, comfortable and sport garments called "casualwear" and the need of care for wool, the price of wool decreased the demand of wool. But a research made shows that over 795 of Turk consumer knows "woolmark" etiquette and 81 percent trust it. It is expected that, production and consuming will increase according to the improvements in international wool market. There will be an inclination for wool and cellulose fibers mixture.

In the beginning of 1986, it is argued that whether Turkish textile and ready-made sector can show the same performance in the following years or not. Especially it's argued that keeping investing on increasing capacity is beneficial for textile and ready-made sector or not. Turkish entrepreneur are criticised for being irrational in investment decisions in 12th International Textile Machinery Association (ITMA) fair at the end of 1995. Most of these arguments and criticisms may be true, but they are not scientific or they are not the results of searches. The searches about worldwide textile and ready-made products consumption and production tendencies are done by the Economist Intelligence Unit and published in Textile Outlook International periodical. These researches can help Turkish entrepreneurs because they try to estimate how the production and consumption balances would be in the following ten years. The researches of Textile Outlook International depend on the data of International Cotton Advisory Committee and the development in the consumption of ready-made products and investments of the textile machinery according to the development in the income level (Keane and Velde, 2008; Url4; Turkish Cl.As., Annual Report, 1997).

### **3. GENERAL PERSPECTIVE OF DEMAND FOR FIBER IN THE WORLD POPULATION**

Textile and ready-made products meet primary or secondary needs of human kind. For instance, people use textile and ready-made products for production against weather conditions, showing-off and decoration. Every individual consumes textile and ready-made products according to the religion and tradition of the society. Textile and ready-made products such as T-shirt, shirt, sock, blanket, inside-wear and etc. contain amount of raw materials. Total fiber demand in the world was 29.9 million tons in 1980, but it reached to 37.5 million tons in 1992. This corresponds to 2.1 per cent increase per year. With his trend it is expected that demand will reach 51.5 million tons in 2004. The increase in the consumption of fiber is closely related with the increase in consumption of fiber in west Europe or developing countries.

Total consumption of fiber will increase as fiber consumption per person increases. Now we are faced with a question of "How can we meet this increasing demand?". Undoubtedly supply must increase parallel with the increasing demand. A matter of fact, world fiber supply increases approximately 2.27 percent per year and this increase meets the total demand. Since countries' total fiber consumption increases as result of increasing fiber consumption per person, these countries have to meet the increasing demand by increasing the fiber supplies or importing fiber. This situation forces us to examine self capabilities of countries. If a country can meet the demand for thread and fiber from its own establishments and factories, this country is called self capable country (Url 4; Url 5; Keane and Velde, 2008; Sawatzki and Sirtioğlu, 2016).

#### **3.1. Encountered Problems in the Sector**

The textile and ready-made sectors have new dynamics; they also meet with much more problems. These problems are summarized as follows:

- Excess amount over export is sold in internal market. This decreases the prices of internal market. So companies which sell their products into internal market are accomplished negatively.
- The excess amount of new firms causes price competition for foreign markets.
- The lack of energy and substructure cause many problems for the quality of textile industry.
- Since many firms in sector are small and middle sized, they are not financially strong. Because of this reason, banks do not give credit for these companies easily.

-There are rapid changes in the export markets. So many foreign importers do not buy in big lots, lot sizes are decreased. The companies that do not follow these rules are encountered with different problems.

-Bureaucracy and stationary are still among the significant issues. Changes in the exchange rates influence the firms negatively that export amount of percent of their products (Keane and Velde, 2008; Dadashian et al., 2007; Hax and Majluf, 1991).

*Textile and Ready-Made sectors are the applicants of dynamic sectors in short term.*

-Marketing and delivery problems of small and middle size producers must be excluded by Sectorial Foreign Trade Firms.

-There is low risk of raw material insufficiency. Turkey is one of the few countries that has enough raw material capacity in the world.

-It is seen that being active in the marketing and delivery channels is a crucial necessity. For this reason, new investing on marketing and distribution channels in destination markets are increasing (Keane and Velde, 2008; Dadashian et al., 2007; Hax and Majluf, 1991).

#### **4. OVERVIEW FOR EVALUATION OF QUALITY REQUIREMENT**

A Quality-Oriented Approach to the Assessment Quality Oriented Assessment supports the standards of organization and involves requirements, or instructions for an orderly perception to a specific facility. This evaluation may involve product design requirements, test methods, classifications, recommended practices, and other examinations. The advantages of this assessment are sorted like this. Firstly, it defines reliability requirements aimed to decrease the risk of production. It provides to build a level of performance for goods and products. The steps of this assessment are a structure for quality processes. This methodology tries to reduce cost and save money (Faridul et al., 2016; Keane and Velde, 2008).

Quality Control bases on these significant issues. A group of activities or methods whose objectives is to provide that all quality conditions are being considered via observing of processes and to construct performance issues through determining and testing. Components of Quality Control are to develop required quality goods and product, to provide customer satisfaction, to evaluate the demand of customer, to decrease the cost of production, to decrease the amount of waste and to support to earn maximum profit according to the minimum cost (Jeyaraj et al., 2012). Targets of testing causes for textile testing are checking the quality and convenience and reliability of raw material and selection of material of production, monitoring and observing of production stages, process control, evaluation of final-end user product, whether the quality is acceptable or refuse-rejected, and investigation of defective materials (for instance, assessment of customer grumbles, detection of failure modes in machine, research and development of products).

The purpose of study is to determine the best strategy and the improvement of the textile sector to evaluate this business and it will be analyzed via an engineering perspective. In this research scope, all steps of this industry will be involved. The other goal of this study is to define its strengths and weaknesses, opportunity and threats components of this sector. Focused on the chosen significant criteria of the SWOT matrix is constructed.

##### **4.1. Determination the Importance of Textile Industry via Swot Analysis**

The SWOT variables are declared according to the prior experience of the researchers, experts of this sector and also withdraw support of brainstorming technique. The Swot analysis provides to make suggestion and decisions about problems in the framework of development of quality level of production in textile sector.

This application contributes to assess the problems generating real and actual business threats-risk and benefits conditions with quality problems and cumulative sustainability. The same way is applied as rating type questionnaire survey. All questionnaires are determined and assessed in qualitative nature. The questionnaires are presented with facilities reports of business and interview of experts. (Bernroider, 2002; Koo et al., 2008 and Hannah Koo et al., 2011) owing to all staff members in top management, managerial level and board level of the company (Gorsuch, 1983). They are consulted to evaluate and estimate the variables on Likert 5-point scale (1-Extremely unimportant, 2-Slightly unimportant, 3- Neither unimportant nor important, 4-Slightly important, 5- Extremely important). The figure 2 shows the strength, weakness, opportunity and threat criteria of the improvement the quality of textile industry of Turkey.

**Figure 2: Evaluation the Quality Development of Textile Industry by Swot Analysis (Modified from Jeyaraj et al., 2012; Dadashian et al., 2007; Hax and Majluf, 1991; Keane and Velde, 2008 by author)**

S T R E N G T H S	<ul style="list-style-type: none"> <li>-Better brand vision</li> <li>-Export target in textile at USD 200 Billion by 2016.</li> <li>-Strong Research and Development for steps of process of production</li> <li>-Low per capita consumption in this country (2.8 vs. global average of 6.8).</li> <li>-Cost competitiveness.</li> <li>-Support from the management for the managerial decision making</li> <li>-Increasing consciousness among customers and consumers</li> <li>-Decrease water consumption of manufacturing process</li> <li>-Decrease greenhouse gases (GHGs);</li> <li>-Modify to climate variability, extremes</li> <li>-Improve alternatives for insufficient appropriate resources (energy, materials)</li> <li>-Removal of quota restrictions to give a major boost.</li> <li>-Start with the ecological challenges which provides to exist future markets and declare areas where such challenges, trends support requirements in organizations</li> </ul>	<ul style="list-style-type: none"> <li>-Lack of regulations and guidance</li> <li>-Lack of technical experts and experience.</li> <li>-High cost of new spare parts and high cost of maintenance</li> <li>-Lack of ecological knowledge.</li> <li>-Fragmented Industry.</li> <li>-Effect of Historical Government Policies,</li> <li>-Technological Obsolescence</li> <li>-Expenditure of ecological friendly packaging</li> <li>-Slow speed of sample development</li> </ul>
O P P O R T U N I T Y	<ul style="list-style-type: none"> <li>-Eliminate chemical, air, water pollution; health risks (wastemanagement, toxics)</li> <li>-Increased use of CAD to develop designing capabilities to increase the quality level.</li> <li>-Reduce Reuse Recycle – reduces cost</li> <li>-Low cost dyes and chemicals</li> <li>-Reduce Risks</li> <li>-Maximize reuse and minimize waste</li> <li>-Environmental challenges requires innovation and collective action by multiple parties across the value chain and beyond.</li> <li>-Effective environmental measures.</li> <li>-Ensure supply of freshwater (water quality, quantity)</li> <li>-Focusing on Product Development</li> <li>-Requirement of Mass production capacity</li> <li>-Investing in Trend Forecasting to enable the growth of industry</li> <li>-The growth opportunities exist in following areas: Medical textiles Construction textiles Packaging textiles, Home textiles, toilet and kitchen linen, Curtains, interior blinds, Furnishing articles</li> </ul>	<ul style="list-style-type: none"> <li>-Increasing the carbon, water and energy footprints</li> <li>-Influence of external forces involved cannot be controlled</li> <li>-Government influence.</li> <li>-Lack of participation of top management in acquiring green business, green production.</li> <li>-Competition in Domestic Market (Market competition)</li> <li>-High quality standard expected from international customers</li> <li>-Need to revamp Consumer Consciousness</li> <li>-High water consumption</li> <li>-rapid changes in the export markets</li> <li>-increasing amount of new firms causes price competition for foreign markets</li> <li>-Changes in the exchange rates influences the firms</li> </ul>

## 5. EVALUATION AND CONCLUSION

This research is an evaluation of the quality level of textile industry. It is about the problems encountered the industry and the suggestions submitted during the research. Some suggestions are applied using the experience obtained. This study contributes the future studies on this topic. In the literature survey phase of the study, the main issue was the lack of publications about textile industry. Meanwhile, the available books were too old that they are far behind the new technological improvements. In the overview of textile industry phase, it is recognised that the data used in reports are not enough. These reports are prepared and used by authorised foundations such as İTKİB (İstanbul Tekstil ve Konfeksiyon İhracatçılar Birliği), TCA (Turkish Clothing Association). Furthermore, the statistics in these reports are inconsistent. Since these reports are used for strategic decision making, this framework can cause to follow the wrong strategies. This conditions either can hide problems or cause inefficient usage, utilization of the capability.

Although Turkey has sufficient raw material and labor resources. But, this potential has not been used effectively. As Turkey already entered custom union of European Community, the textile industry gained more importance. In order to compete in international markets, Turkey's textile industry has to use its potential effectively and take necessary precautions. For a total effective structure, the firms should be related either in the form of financial associations and heartened by incentives to keep their flexible subcontracting configurations. This will lead to simultaneous coexistence of small and large production units and will encourage the industry to organise itself at different production scales. In order to stay competitive and to surpass in this changing environment, the Turkish textile industry should develop its market policies by better design abilities, promote-advance the quality of the products and distribute into more demanding and exacting markets. Organisations of private sector and government should consider and work together for reconstitute programmes to increase activities and developments of fashion and design, marketing research and implementations of marketing, furtherance-publicity of country and brand image promotion.

Private non-profit organisations should be established to work on design intelligence, formal education, research and applications, Cad/Cam advance technologies, export promotion, employee and management training.

The textile industry is recognized for its wide and different range of products, different type and scale of firms and variety in the market. These factors lead to the authority of small and medium size firms which focus on comparatively few product classifications. This is a significant constraint, restricted factors on the process of technical change in the industry.

During this study, it is observed that production planning is the most important problem in textile industry. The structure of the production units in Turkey should be modified with the regulation of the government through an industrial investment incentive strategy. Quality control is also a crucial issue in textile industry. Since the last step of all processes is quality control, it is very significant stage. But inspection of defects in textile is subjective. Factories have risk when the final-end product is examined and delivered to the customers. Because customer satisfaction is a vital factor to sustain the textile industry. With the new developing technology, descriptions of fault and defect are made to the computer and computers are used for inspection. But this technology does not have the ability of making strategic decisions. Furthermore, this technology is no wide spread in Turkey. Thus, the concept of the quality of production should be expanded to the whole factory and textile industry and Total Quality Management (TQM) should be implemented.

Turkey, being a household textile development country, has been fortunate in sustaining its production groundwork despite different problems accomplished during the latest decades. The scope of textile production has been inauspiciously influenced by the government assessments, particularly during the last decades. Despite all these troubles and problems, Turkey has provided to sustain sixth in the world in cotton-textile production. The investments in textile manufacturing, which started off as cotton threads and cotton fabric production, and with significant expansion into other textile areas as well as to clothing sectors. This development supported for Turkey on the fifth order in the highest cotton consuming countries and sixth order in the clothing exporting countries. Although there occurs a well functioning scope interchange market for cotton, dating back to more than 100 years (Url 4).

## REFERENCES

- Basal, H., Sezener, V. 2012, Turkey Cotton Report, [https://www.icac.org/wp-content/uploads/2012/11/03-HBASAL\\_TURKEY-COTTON-REPORT2.pdf](https://www.icac.org/wp-content/uploads/2012/11/03-HBASAL_TURKEY-COTTON-REPORT2.pdf)
- Bernroider, E. 2002, "Factors in SWOT analysis applied to micro, small-to-medium, and large software enterprises: An Austrian study", *European Management Journal*, vol. 20, no.5, pp.562 - 573.
- Dadashian, F., Shakibfar, S. and Fazel Zarandi, M.H. 2007 "Strategic alliance for core competencies improvement in textile industries", *International Journal of Management Science and Engineering Management*, vol. 2, no. (2), 98-107.
- Debnath, D., Thompson, W., Helmar, M. and Orman, T. 2016, *Economics and Marketing*, "Effect of the Southeastern Anatolia Project (GAP) on Cotton Markets of Turkey and the World", *The Journal of Cotton Science* vol.20, pp.46–55 (2016).
- Faridul, H.K.M., Md. Shipan M.Md., Ashaduzzaman, Mostafizur, R.Md., Ullah, A., Ullah, M.S. 2016, "Role of Textile and Clothing Industries in the Growth and Development of Trade & Business Strategies of Bangladesh in the Global Economy", *International Journal of Textile Science* 2016, vol. 5, no.3, pp. 39-48 DOI: 10.5923/j.textile.20160503.01.
- Gazanfer, S., Aegean Textiles and Raw Materials Exporters Unions Production and consumption of cotton in Turkey, Board Member
- Gazanfer, S. "Assessing the establishment of a cotton futures market in Turkey" Paper presented at the Technical seminar at the 51st Plenary Meeting of the ICAC, Liverpool, United Kingdom
- Gazanfer, S. 1995, "Guidelines for facilitating access to risk management markets through the stimulation of local and regional exchanges: the case of cotton in the Near East/CIS/Pakistan" UNCTAD/Com/65, 19 September, 1995.
- Hax, A.C. and Majluf, N.S. 1991, "The strategy concept and process: A pragmatic approach", Prentice-Hall, London.
- Istanbul ready made garment and apparel exporters' association (İstanbul Tekstil Konfeksiyon İhracatçılar Birliği), Annual Report, 1996.
- Istanbul ready made garment and apparel exporters' association (İstanbul Tekstil Konfeksiyon İhracatçılar Birliği), Six Months Export Evaluation of Textile & Ready-Made Industry, Annual Report, 1997.
- Jeyaraj, K.L., Muralidharan, C., Senthilvelan, T., Deshmukh, S.G. 2012, "Application of SWOT and Principal Component Analysis in a Textile Company - A Case Study", *International Journal of Engineering Research and Development*, vol. 1, no. 9 (June 2012), pp.46-54.
- Koo, L.C., Koo, H., Luk, L. (2008), "A pragmatic and holistic approach to strategic formulation through adopting balanced scorecard, SWOT analysis and blue ocean strategy - A case study of a consumer product manufacturer in China", *International Journal of Managerial and Financial Accounting*, vol. 1, no.2, pp.127 - 146.
- Koo, H., Chau, K.-Y., Koo, L.-C., Liu, S., Tsui, S.-C. 2011, "A structured SWOT approach to develop strategies for the government of Macau, SAR", *Journal of Strategy and Management*, vol. 4, no.1, pp.62 – 81.
- Miller, E.1995, *Properties and Behaviour in Clothing Use*, London: B T Batsford Ltd.
- Potter, D. and Corbman, B. P., 1967, *Textiles Fiber to Fabric*, New York: McGrawHill.
- Sawatzki, K., Sirtioğlu, İ. 2016, Turkey Cotton and Products Annual Report, Turkey 3/23/2016, GAIN Report Number, TR6013, [https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Cotton%20and%20Products%20Annual\\_Ankara\\_Turkey\\_3-23-2016.pdf](https://gain.fas.usda.gov/Recent%20GAIN%20Publications/Cotton%20and%20Products%20Annual_Ankara_Turkey_3-23-2016.pdf)
- State Institute of Statistics, Turkey in Statistics, 1997.
- State Planning Organisation, Main Economic Indicators, 1998.
- Turkish Clothing Association, Annual Report, 1997.
- Url 1- Cotton production by country worldwide in 2015/2016 (in 1,000 metric tons) <https://www.statista.com/statistics/263055/cotton-production-worldwide-by-top-countries/>
- Url 2-DataBank, <http://databank.worldbank.org/data/home.aspx>,



Url 3-Global cotton production volume from 1990 to 2016 (in 1,000 bales) <https://www.statista.com/statistics/259392/cotton-production-worldwide-since-1990/>,

Url 4-T.R. Customs and Trade Ministry General Directorate of Cooperative- T.C. Gümrük ve Ticaret Bakanlığı Kooperatifçilik Genel Müdürlüğü, 2015 yılı Pamuk, Feb. 2016, <http://koop.gtb.gov.tr/data/56e95b3a1a79f5b210d9176f/2015%20Pamuk%20Raporu.pdf>

Url 5-Türkiyede Pamuk üretimi ve Tüketimi, <http://www.mkatextile.com/turkiye-pamuk-uretimi-ve-tuketimi.php>.

Url 6- The World Bank, 2012. "Gross Domestic Product per Capita by Country in Current US\$,  
" <http://data.worldbank.org/indicator/NY.GDP.PCAP.CD>, son erişim tarihi: 23.12.2012.