# Definition, history of denim fabric and Turkey's denim clothing export in figures

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#### **REZUMAT - ABSTRACT**

### Definiția, istoricul țesăturii denim și exportul îmbrăcămintei din denim din Turcia în cifre

Acest studiu prezintă definiția țesăturii denim, evoluția istorică în Turcia și datele de export global și național ale îmbrăcămintei din denim din ultimii 15 ani din Turcia, care au crescut rapid pe o piață de desfacere foarte importantă în țările din întreaga lume.

Cuvinte-cheie: denim, istoricul tesăturii denim, îmbrăcăminte din denim, exporturile de tesătură denim

## Definition, history of denim fabric and Turkey's denim clothing export in figures

This study examines the definition of denim fabric, its historical development in Turkey and in global and product and country based export data of denim clothing of the recent 15 years of export of Turkey which has rapidly risen and become a very important market amongst related countries in the world.

Keywords: denim, history of denim fabric, denim clothing, denim exports

#### **INTRODUCTION**

#### **Definition of denim fabric**

Fabrics which are named as denim or blue jeans are woven in various textures generally fabricated from yarns such as cotton, polyester, nylon, viscose and lycra, in several unit weights, generally warp yarns dyed with blue indigo dyes, weft yarns in natural white colors. Denim fabrics today are being manufactured in various specifications for different purpose of use. The indigo coloring agent, which is known as "living color", is now being produced synthetically, and the product being dyed with this coloring agent changes its color becomes white in time due to washing. In denim weaving, largely rotor yarn (OE) and rarely ring karde yarn are preferred. Apart from these, there are also denim fabrics where fancy and special yarns are used. There are many kinds of denim that are referred in the market with different names. Some of these are; Natural Denim which is a fabric whose warp and weft yarns are undyed, Antique Denim; which is a denim fabric woven in shuttle looms in 19th century where weft and warp yarns were ring yarns. Nowadays, it is quite difficult to find a fabric with the same effect. Fish Net Denim: is a fabric that warp and weft are from shantung ring yarn. Stretch/Lycra Denim Cotton is woven from warp yarns made of 100% cotton yarn with weft yarns consisting of twisted weaves of elastic lycra yarns.

In the world, denim fabrics are referred as "jeans", "blue-jeans", "jeans wear" and "sportswear". In Turkey, different from the world, the denim clothing is called "jeans" and the pants stitched from denim fabrics are called "jeans pants". In order to eliminate the confusion in definitions related with denim, all of them are described and explained separately.

The term "jeans" was derived from worn blue pants of shipwreckers of Genoa port and other industrial

workers as their daily wear. Jeans are fabrics woven by heavier cotton fabrics with warp or weft yarns dominated by D 2/1 Z or D 3/1 Z twill woven, with intact yarns and dyed in different colors.

Blue-jeans; are referred to fabrics and pants made of heavy-duty cotton fabrics where warp yarns are dyed to blue color with indigo coloring agent, weft yarns are not dyed, woven with D 2/1 Z or D 3/1 Z twill weave.

Jeans-wear; are clothing made of jeans type fabrics such as pants, shirts, skirts, vests and jackets. Sports Wear is referred to all kinds of clothing named as sportswear, casual wear or leisure wear [1].

## **History of denim fabric**

The denim fabric used for making jeans is named "Tissu de Nimes" coming from the Rhone valley of southern France, and the name Blue Jeans is derived from the Italian Riviera "Blue de Genes" or "Genoa blue". Blue Jean pants in general; was born with a pair of pockets attached with copper rivets which is the invention of Jacob Davis to the pants manufactured by Lewis Strauss, who had been settled in San Francisco from Germany in 1851, made of blue durable cotton denim fabric taken from France. The world-wide progress of the Blue Jeans, first prepared by Levi Strauss as for heavy duty workers clothing in the 19th century, started to become popular with Marlon Brando and James Dean in the 1950s movie screen. Since then, it has evolved into a fashion with incredible variations that has been originated by stylists, yarn manufacturers, weavers and handlers. In 1873, Levi Strauss made the first Jean from dark brown "Canvas" for the Californian miners. In 1890, Levi Strauss began producing the first Jeans under the name "501 indigo". In 1950s, the first jeans with zippers started to appear in the market. In 1962,

Burlington produced the heavy Blue Jean (14,75 ounces/yd²) in Sulzer Ruti shuttle weaving machines, then in 1974, washed Jeans were delivered to the market [2].

If we follow the historical development of Jeans in Turkey, we can summarize it as follows: even though the homeland of Jeans is accepted as America, according to the thesis of Prof. Dr. Halil İnalcık, jeans fabric had been manufactured in Western Anatolia. In 15<sup>th</sup> and 17<sup>th</sup> centuries, cotton had been intensively cultivated in Denizli and Akhisar regions, Turkish cotton was not fine grained, therefore rough and cotton clothes had been mostly used by peasants and poor people. Later, these cotton fabrics started to be painted with blue (indigo) dye coming from India. According to Inalcik, the first exports of these rough cotton fabrics brought to İzmir had been realized to Marseille city of France in the 16<sup>th</sup> century. From here, they were worn by African slaves working in the farms who had been brought to the Colonies in America by the Spanish. The success of America was to convert jeans into an industry [3].

Jeans (Kot) is used in Turkish equivalent of the word Denim in English.

The main reason for the settlement of the jeans (kot) word in Turkish derives from the family name of the person who had first manufactured the jeans in Turkey. When Muhteşem Kot was 3 years old, he moved from Yugoslavia to Turkey and settled in Edremit and became a tailor apprentice after his primary and secondary education and then to improve himself in his profession, he studied in La Deveze Derrox which had been considered as one of the best tailoring schools of that time. When he returned to Turkey, he began to produce this fabric he had seen there. By the end of 1940, Kot who was looking for a cheap but durable product that could be worn by workers and peasants, he met blue jeans during his visit to France, he admired the strength and stitch style and decided to produce the fabric in Turkey. In 1960, 200 pieces had been produced per day. This fabric became popular amongst peasants and workers at that time. In 1960 the name of KOT was branded. The great breakthrough in the textile industry in 1980's was also reflected in the denim production and the production of blue jeans for export, with the contribution of many international brands shifting their production [4]. Particularly since early 1980s, Turkey has been described as a textile country. The grounds of this formation do not only derive from the developments in Turkey but also derives from the orientation of the European Union and USA to East with the purpose of seeking cheaper production opportunities. In countries such as China, Russia, Hong Kong where the costs of production input including the labor force is low, were getting shares from readymade clothing; Turkey became prominent among them. Turkey, which changed her import policy, has opened its markets to imported brands and has pulled their production into her borders. It has become inevitable for many international ready-made

clothing companies to prefer Turkey in search of economic and quality production conditions and which is also a market. Since rapidity in production is so important, industrialists who are capable of adapting themselves to the demand capacity and quality standards could manage to make production for export without facing any difficulties [1].

# PLACE OF DENIM CLOTHING IN APPAREL EXPORT OF TURKEY ACCORDING TO YEARS

Turkey is one of the leading countries in global denim clothing trade in terms of both design and branding as well as effective marketing strategies. The intensive and effective marketing strategies that the denim clothing producers have been carrying out for years have started to bear their fruits in the 2000's and in 2003 Turkey's denim clothing exports exceeded 1 billion dollars. In the following years, denim clothing exports continued to rise and in 2007 Turkey's denim clothing exports exceeded 2 billion dollars. In 2000, while the share of denim clothing in Turkey's total garment and apparel exports was 5.6%, this share increased steadily until 2005 up to 14.4%. The aforementioned share declined by 9.4% in 2015 with a fluctuating course [5]. The relevant data are given in table 1.

Table 1

Years	Apparel export (US dollars)	Denim clothing export (US dollars)	Share of denim clothing (%)	
2000	7.250.960.266	409.101.332	5,6	
2001	7.332.107.194	571.752.041	7,8	
2002	8.945.787.240	885.301.679	9,9	
2003	11.171.096.393	1.015.716.467	9,1	
2004	12.643.689.614	1.510.362.658	11,9	
2005	13.422.476.709	1.935.830.021	14,4	
2006	13.569.690.083	1.865.061.865	13,7	
2007	15.577.956.348	2.174.262.435	14,0	
2008	15.251.170.762	1.741.769.414	11,4	
2009	12.868.195.771	1.400.969.502	10,9	
2010	14.205.917.174	1.502.143.744	10,6	
2011	15.648.660.734	1.556.622.886	9,9	
2012	15.753.400.255	1.488.677.983	9,4	
2013	17.150.270.228	1.609.388.754	9,4	
2014	18.484.603.209	8.535.980.789	9,1	
2015	16.744.623.554	1.579.325.190	9,4	

# DENIM CLOTHING EXPORT ON THE BASIS OF PRODUCTS

When we briefly summarize the data in table 2, the denim clothing that are mainly exported from Turkey are women denim pants. In 2015, women's denim pants worth \$ 797.6 million were exported and exports decreased by 7.5% compared to 2014. The share of these products in Turkey's total denim clothing

Definition	2012 Annual value (US dollars)	2013 Annual value (US dollars)	2012/2013 Change (%)	2014 Annual value (US dollars)	2015 Annual value (US dollars)	2014/2015 Change (%)
Women, girls denim pants	723.533.526	804.708.956	11.3	862.194.671	797.556.579	<b>-</b> 7,5
Men, boys denim pants	691.764.472	710.324240	2.7	746.311.751	693.545.003	<b>-</b> 7,1
Women, girls, denim jacket, blazer	20.185.528	25.409.349	25.9	26.839.826	19.363.911	-27,9
Women, girls denim skirts	15.503.433	21.703.848	40.0	15.671.885	25.494.561	62,7
Women, girl denim shirts	14.655.340	19.640.524	34.0	11.159.611	8.679.005	-22
Men, boys denim shirts	10.277.083	12.427.131	30.7	14.032.958	9.887.022	-30
Women, girls dress denim	8.027.433	7.777.485	3.1	9.001.282	18.454.620	<b>–105</b>
Women, girls blouse denim	5.131.163	6.399.221	24.7	6.047.127	6.490.699	7.3
Denim clothing export	1.488.677.983	1.609.288.764	8.1	1.678.316.551	1.573.573.513	-6.24

exports is 50.5%. In other words, half of the denim clothing exports made in Turkey are women's denim pants. The second most exported product is men's denim pants. In 2015, exports of \$ 693.5 million were performed with a decrease of 7.1%. The share of men's denim pants in total denim clothing exports is 43.9%. Women's denim skirts export with an increase of 62.7% and women denim jackets export with a decrease of 27.9% are the other leading export items. Their share in total denim clothing exports was found to be 1.6% and 1.2%, respectively. The highest rate of exports in 2015 in terms of denim clothes was women's denim dresses. Exports of women's denim dresses increased million from \$ 9.1 million in 2015 to \$ 18.3 million higher than in 2014. The share of the product group in total exports is 1.2%. Women's denim skirts are another denim clothing group with an high increase rate in exports by 62.6%. In 2015, exports of women's denim skirts increased by 62.7% in dollar terms when compared to 2014, rising to \$ 25.5 million from \$ 15.7 million. The product group's share in total exports is 1.6% [5]. Relevant data are given in table 2.

# LEADING DENIM CLOTHES IMPORTING COUNTRIES FROM TURKEY

The largest markets for Turkey's denim clothing exports are Germany, England, Spain, Netherlands and Denmark. In 2015, denim clothing equal to the value of \$ 271.7 million was exported to Germany, and exports decreased by 7.7% in comparison with 2014. The share of exports made to Germany in total denim clothing exports is 17.2%. In other words, about one sixth of total denim clothing exports is directed to Germany. In 2015, the value of \$ 236 million of denim clothing was exported to England which is the second largest market and the exports decreased by 6.3%. England's share in total denim clothing exports of Turkey is 14.9%. \$ 226.7 million of denim clothing was exported to the third largest market Spain, with an increase of 7.2% and the share of Spain in total denim clothing exports became 14.4%. The highest rate of increase in denim clothing exports

was realized in Poland. In 2015, \$ 30 million denim clothing was exported from Turkey to Poland and exports increased by 50.9% when compared to 2014. Algeria is the second country that the export of denim clothing has increased significantly. An export increase of 34.1% was recorded for Algeria in 2015. On the other hand, another EU country, Belgium, has become the country where the highest rate of export decline was observed among the first eighteen exporting countries. Exports to Belgium decreased by 38.1% in 2015 from \$ 69 million to \$ 42.7 million [5]. Relevant data are given in table 3.

### **GENERAL EVALUATION AND CONCLUSION**

When the producers are observed, USA, which used to be one of the most important producers of the world once, has lost its leadership in production to Asian countries such as China, India, Pakistan, Bangladesh and Turkey in last decade. Today, producers in Turkey are making effort to create new markets by adding new functions to denim clothes. Denim clothing users, even though not accustomed to functional features such as waterproofness, crease resistance, flexibility, stain-proofing, they were not backward from purchasing denim clothing manufactured with innovative features. Since 1980s, in parallel with the development of textile and apparel industry, Turkey has covered important distances in the production of denim fabrics and clothing made of them as one of the oldest fabric varieties of the world. 2015 annual data shows that denim fabrics has a share of 5% of in total textile exports of Turkey and denim clothing has a share of 9.4% in Turkey's total ready-made clothing and apparel exports. This share increases to 27% when only woven apparel products are taken into consideration [5].

Today it can be said that the most distinctive feature of denim clothing is that it is a unique and important clothing and trade category that has always been demanded regardless of market conditions. In Turkey, as people's lifestyles have changed, denim fabrics and clothing produced therefrom have undergone significant changes such as fabric thicknesses, weight, finishing techniques and new applications.

Countries	2012 Annual	2013 Annual	2012/2013 Annual change	2014 Annual	2015 Annual	2014/2015 Annual change
Germany	252.115.151	273.425.757	8	294.466.066	271.706.370	-7,7
England	168.672.762	219.648.026	30	251.846.975	235.972.543	14,9
Spain	164.042.891	186.202.746	14	211.499.278	226.672.261	7,2
Netherlands	132.980.764	159.313.564	20	163.173.279	143.568.551	-12,0
Denmark	96.362.339	88.143.104	2	114.127.426	113.060.236	-0,9
Italy	98.384.391	85.792.821	-13	79.381.279	70.719.920	-10,9
Belgium	65.810.683	71.410.828	9	68.999.201	42.712.999	-38,1
Czech Republic	68.749.394	70.788.730	3	56.314.476	40.591.608	-27.9
France	55.040.847	60.175.038	9	70.797.126	56.240.452	-20,6
Russian Federation	52.436.477	57.312.330	9	27.089.641	19.746.624	-27,1
Sweden	30.923.546	37.250.539	20	36.060.652	27.528.333	-23,7 1
Usa	24.416.673	25.139.587	2	26.029.662	33.933.675	30,4
Ukraine	21.89.228	18.840.017	-11	19.402.591	26.022.865	34,1
Algeria	18.888.232	17.197.425	-8	17.150.620	23.480.074	36,9
Bulgaria	12.405.487	14.611.171	18	16.150.098	12.070.294	-25,3
Poland	15.233.770	13.653.017	-10	19.901.058	30.032.042	50,9
Norway	9.628.794	12.401.440	29	14.189.945	12.078.291	-14,9
China	7.950.488	11.811.561	49	10.850.997	12.418.864	14,4
Turkey's total denim clothing export	1.246.429.744	1.423.117.701	14	1.499.682.361	1.401.098.813	6.6

But whatever it is, the denim clothing that are used by all age groups with their durability and comfort have found their places in the wardrobes of almost every consumer. As a result, denim fabrics and clothing produced from them which had been very limited use centuries agohave become a versatile clothing sector over time that has been preferred and worn by all age groups.

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