

# Trend for Eco-Friendly extended to textile apparel products

by Professor Dr. Noor Ahmed Memon, Dadabhoj Institute of Higher Education.

The dyeing, printing and finishing sectors have seen remarkable improvements in textile technology over the years, to meet increasingly stringent requirements of lower usage of chemical, water and energy. Today's finishing machines provide economical and profitable production while meeting all stringent requirements.

With rapid changes in fashion, the textile industry is making a steady shift towards prints, rather than dyed fabrics. The market for textile printing is closely linked to consumer demand for apparel/clothing, home furnishings and decor. Steady population growth, increasing purchasing capability, and rapidly changing fashion trends are among the key factors driving the growth in the textile printing market.

The steady shift towards digital textile printing driven by the technology's ability to accelerate production speeds, and reduce coloration costs, is another factor in the steady growth in the market. Technology advancements and innovations associated with inks and consumables, print heads, and printing machinery remain vital to market growth.

Screen printing represents the largest market sector by type of technology. Though facing stiff competition from the rapid adoption of digital technology, conventional screen printing continues to hold a major share of the global textile printing market, in terms of production volume of printed textiles. Growth in the coming years will be driven largely by the digital textile printing market.

**Table 1: Production of Cloth (Mills Sector)**

000 sq meters

Year	Blended	Grey	Bleached	Dyed and Printed	Total
2012-13	59	571	88	311	1,029
2013-14	58	531	86	361	1,036
2014-15	57	573	91	316	1,037
2015-16	60	570	85	324	1,039
2016-17	55	560	90	338	1,043
2017-18	50	570	85	339	1,044

Source: Textile Commissioner Organisation Government of Pakistan

**Table 2: Imports of Dyes and Pigments in Pakistan**

Value: Rs. in Million

Description	2015 - 16	2016 - 17	2017-18
Disperse Dyes.	3,074	2,898	2,718
Acid Dyes Premetalise.	1,591	1,663	1,945
Basic Dyes.	890	897	869
Direct Dyes.	419	361	399
Vat Dyes Indigo Blue.	2,569	2,699	3,842
Other Vat Dyes.	1,071	1,059	1,122
Reactive Dyes.	8,657	8,914	9,227
Pigments Preparation.	3,006	3,006	3,038
Dyes Sulphur.	1,412	1,319	1,965
Other Dyes synthetic.	216	240	225
<b>Total</b>	<b>22,905</b>	<b>23,056</b>	<b>25,350</b>

Source: Pakistan Bureau of Statistics.

Development of high-quality inkjet print heads, availability of open system inkjet print heads that enable use of inks from multiple suppliers, and launch of lower priced solutions are expected to accelerate the adoption of digital printing technology.

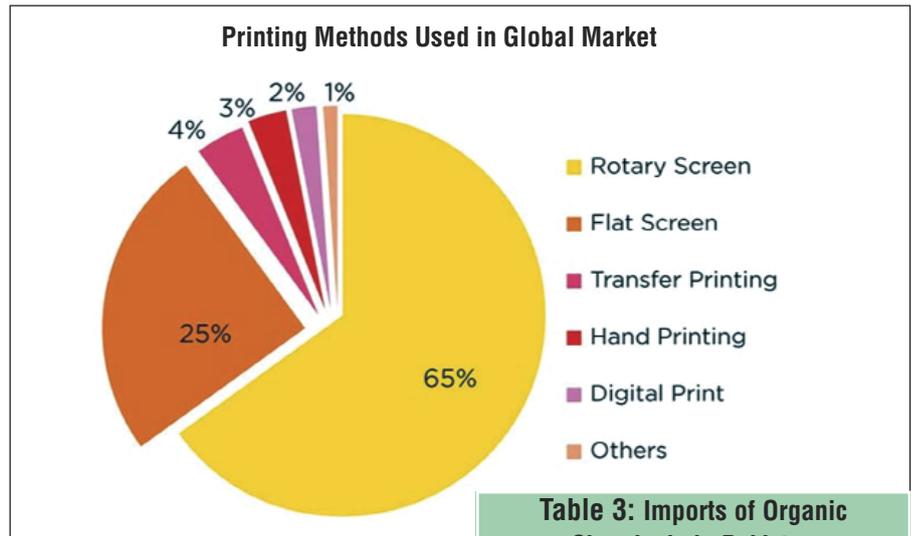
The market for digital textile printing in Pakistan is increasing as it offers better and high definition textile print design possibilities, lower water, effluent, emissions and energy use with economical production of “short run medium run” prints to the market. The shorter delivery brings in increased savings to retailers and brands as digital printing hubs are based on proximity sourcing and just-in-time printing and sourcing strategies.

### Textile processing

The textile sector of Pakistan is considered to play a central role in the economy of the country. At present independent processing units are working in and around Faisalabad, Gujranwala and Karachi with complete finishing facilities. These integrated units have complete finishing facilities i.e. bleaching, mercerizing, dyeing, calendaring and printing. These units from the power loom sector procure cloth and after processing they are marketed under their own brand names in the domestic market.

The weaving and made-up sectors have three different subsectors in weaving viz. integrated, independent weaving units and power loom sector. The cloth is being produced in both the mill and non-mill sectors. Pakistan’s fabrics range from course to super varieties. There are a large number of vertically integrated units, where production is controlled from fibre to the end product, and marketed abroad directly.

The production of cloth (mill and non-mill sectors) increased from 9.13 billion square meters in 2013-14 to 10.01 billion square meters in 2017-18, thus showing an average increase of 2.5% per annum. Out of total production of cloth during 2017-18 in mill sector, 50% produced in grey form, 34% dyed and printed, and 16% blended and bleached. Production of cloths mill sector are given in **Table-1**.



### Import of dyes and pigments

The import of various dyes and pigments in Pakistan decreased from Rs 23.06 billion in 2016-17 to Rs 25.35 billion in 2017-18. Imports of dyes and pigments in Pakistan are given in **Table 2**.

### Import of organic chemicals

With increasing global awareness regarding the issues of environment and pollution, improved environmental performance has become a major factor in the dynamics of the world markets, and successful businesses around the globe are striving to achieve the goals of responsible environmental behaviour.

To enhance and sustain the textile exports of Pakistan it is essential to address the associated environmental problems on urgent basis. Import of organic chemicals in Pakistan increased from US\$ 1.86 billion in 2015-16 to US\$ 2.61 billion in 2017-18, thus showing an average increase of 13% per annum. Imports of organic chemicals in Pakistan are given in **Table 3**.

### Import of finishing machines

Due to withdrawal of custom duties and taxes and introduction of concessional financing on the import of finishing textile machinery the imports have increased. Imports of textile dyeing, drying, bleaching and finishing machines increased from Rs 6.48 billion in 2015-16 to Rs 8.83 billion in 2017-18, thus showing an average increase of 50% per annum. Imports of textile various finishing machinery into Pakistan are given in **Table 4**.

**Table 3: Imports of Organic Chemicals in Pakistan**

Year	Value US\$ Million
2013-14	1,864
2014-15	1,997
2015-16	1,864
2016-17	2,116
2017-18	2,610

Source: State Bank of Pakistan-Annual Reports.

### Future Prospects

The consumers in the developed countries are now concerned about the green activities and choose products which are non-toxic and cause no harm to either the user or the environment. This trend for eco-friendly products has been extended to textile apparel products, particularly those products which directly come into contact with the skin for prolonged periods. The requirements for socially responsible production and processing are increasing every day.

The dyeing printing and finishing sector have seen remarkable improvements in textile technology over the years, to meet these increasingly stringent requirements of lower use of chemicals, water and energy. Today’s finishing machines provide economical and profitable production while meeting all stringent requirements.

### References

1. Textile Commissioner Organisation Government of Pakistan.
2. Pakistan Bureau of Statistics.
3. State Bank of Pakistan-Annual Reports. ♦