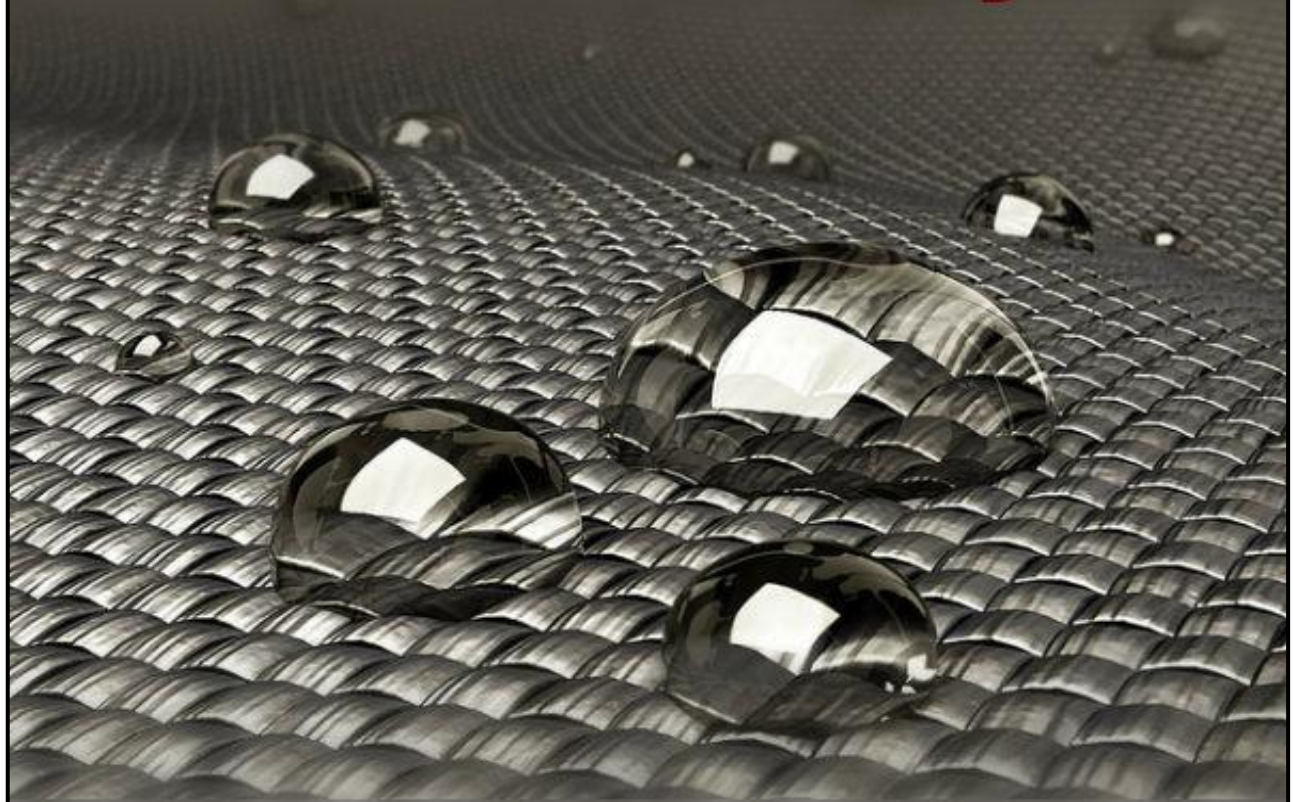


Growth and Usage of New Technology in Textile Industry



By:
M. Usha, Dr. M. Nandhini
& Dr. P. Palanivelu

Growth and Usage of New Technology in Textile Industry

By: M. Usha, Dr. M. Nandhini and Dr. P. Palanivelu

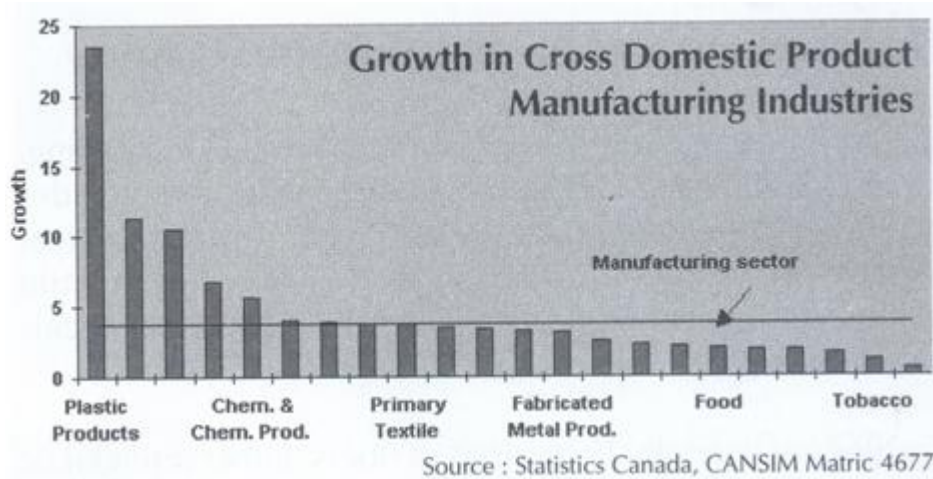
The Indian textiles industry has enormous opportunities for domestic as well as international investors, given its consistent growth performance, abundant cheap skilled manpower and growing domestic demand. With time, India has surged ahead of other countries and positioned itself as a value-added manufacturer with a varied material base, an educated and English-speaking class of executives with high product development and design orientation. Innovation is a key factor to operate successfully in any market.

Technology – Meaning

Technology is the making, modification, usage, and knowledge of tools, machines, techniques, crafts, systems, methods of organization, in order to solve a problem, improve a pre existing solution to a problem, achieve a goal or perform a specific function. It can also refer to the “collection of such tools, machinery, modifications, arrangements and procedures”. The human species’ use of technology began with the conversion of natural resources into simple tools.

Technology Advancement

Technological advances made during the Paleolithic era were clothing and shelter; the adoption of both technologies cannot be dated exactly, but they were a key to humanity’s progress. As the Paleolithic era progressed, dwellings became more sophisticated and more elaborate; as early as 380,000 BC, humans were constructing temporary wood huts. Clothing adapted from the fur and hides of hunted animals, helped humanity expand into colder regions; human began to migrate out of Africa by 200,000 BC and into other continents, such as Eurasia. Traditional survey in manufacturing represents below:



Growth opportunities exist in following areas:

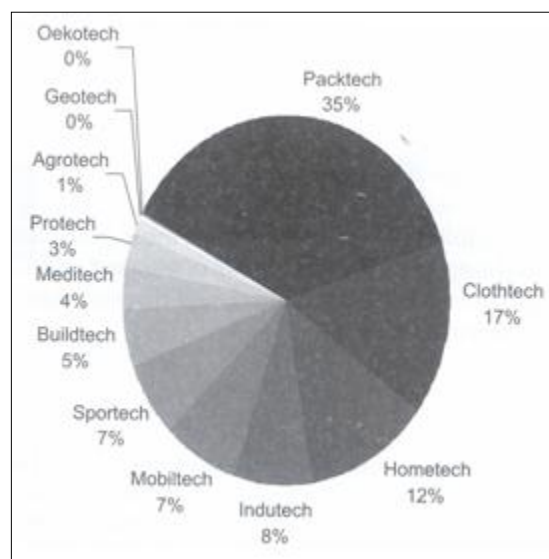
- Medical textiles
- Construction textiles
- Packaging textiles
- Home Textiles (with fire-retarded fabric)

Technical textile is the fastest growing segment in textiles in India and it has generated a lot on investor interest in recent past. Unlike traditional textile industry in India, technical textile is an important intensive industry. There are some large domestic players in the segment like SRF, Entremont Polycoaters, Kusumgar Corporates, Supreme Nonwovens Pvt. Ltd., Garware Wall Ropes, Century Enka, Techfab India Ltd., Unimin, etc. In addition, there are several multinational large players in technical textiles like Johnson & Johnson, Du Pont, Procter & Gamble, 3M, SKAPs, Kimberly Clark, Ahlstorm, Maccaferri, Strata, and Terram etc. who have set up their manufacturing facilities in India. Large textile houses like Arvind Limited and Welspun are now focusing to develop strong technical textiles businesses.

The Central Cottage Industries Corporation of India Ltd. (CCIC) is mainly engaged in the marketing of quality handlooms and handicrafts, and develops their market in India and Abroad. The Corporation operates through its five showrooms situated in Delhi, Kolkata, Mumbai, Bangalore, and Chennai and has franchisee outlets at Jaipur and Gurgaon. It is expected that CCIC will achieve a record turnover and profit respectively. Technical textile segment represents below.

Technology and competitiveness

A competitive advantage (which includes R&D) is automated so that it can be executed with unprecedented speed, efficiency and agility.

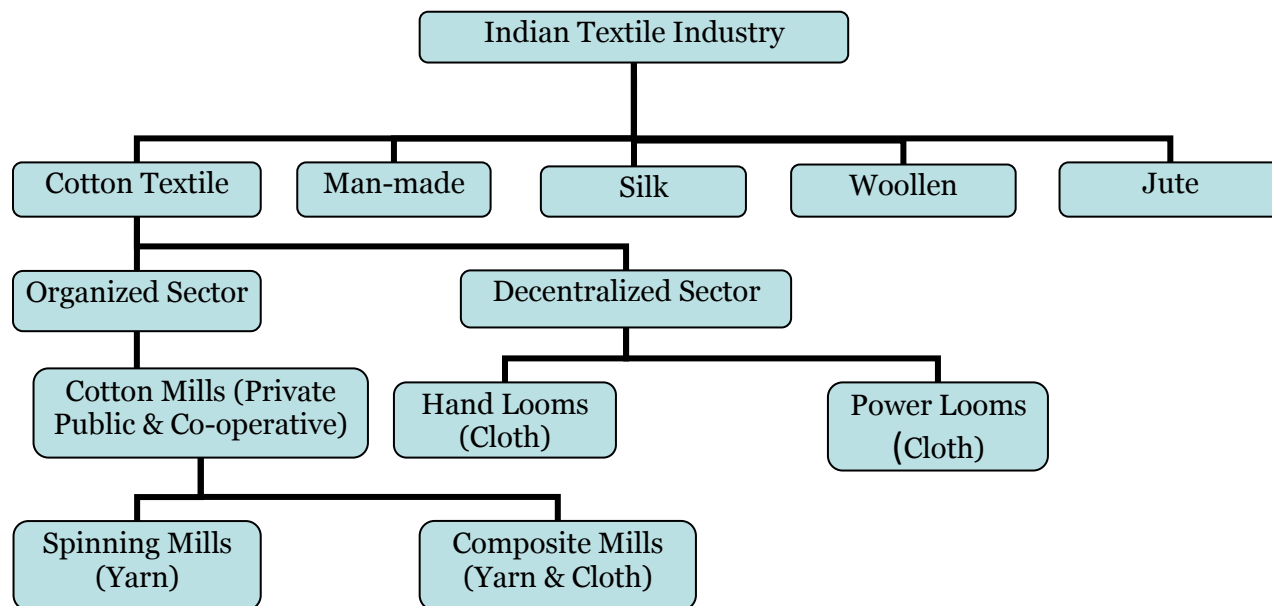


Decision-makers needed adopt a form of technology-based planning that was far more advanced than that used by China and India. Technology-based planning is what was used to build the industrial giants and it what was used to transform into superpower. It was not economic-based planning.

Development of technology in textile industry

Industry reveals technology about manufacturers of weaving, knitting, spinning, and dyeing machines. Directory provides extensive coverage of the scientific and technological manufacturing techniques, textile end products, chemicals and dyes.

Textiles are typically comprised of fibers, either artificial or natural, that are worked together to produce a thread. Threads are then joined together using array of processes, such as spinning, weaving or knitting, to create the final textile, which is essentially a kind of fabric. Any product that is primarily composed of linked fibers is typically called a textile. However, types of fiber can vary, resulting in numerous textile materials. There are four categories from which most fiber materials are made: animal, plant, mineral and synthetic.



Textiles can be made from many materials. These materials come from four main sources: animal (wool, silk), plant (cotton, flax, jute), mineral (asbestos, glass fiber), and synthetic (nylon, polyester, acrylic).

Strategies for growth

- Starting up new courses such as Textile Manufacturing and Textile Technology at universities and engineering institutes
- Liberalized labour laws, tax and other benefits of a Special Economic Zone has implemented

Exports in textile represent nearly 30 percent of the country's total exports. It has a high weight age of over 15 million persons in the mill, power loom and handloom sectors. India is the world's second largest producer of textiles after China and the USA- and the second largest cotton consumer after China.

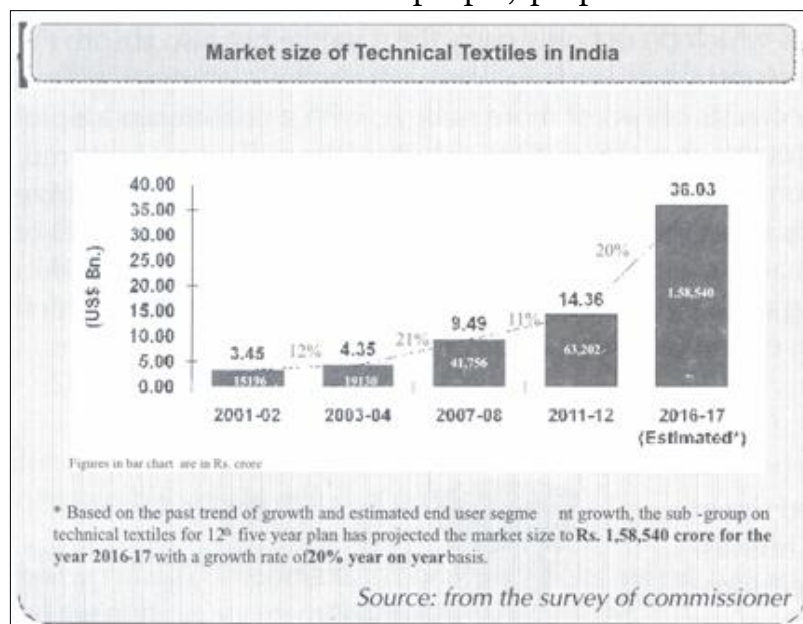
Textile occupies an important place in the Economy of the country because of its contribution to the industrial output, employment generation and foreign exchange earnings. The textile industry encompasses a range of industrial units, which use a wide variety of natural and synthetic fibres to produce fabrics. The textile industry can be broadly classified into two categories, the organized mill sector and the unorganized mill sector. Considering the significance and contribution of textile sector in national economy, initiative and efforts are being made to take urgent and adequate steps to attract investment and encourage wide spread development and growth in this sector.

Development towards the technical textile industry

- Growth of consuming industry
- Increasing affordability of Consumer
- Increasing adaptability level/acceptance of products

Perception among Development of technology

Pervasiveness of technology in the modern world, opining that it harms the environment and alienates people; proponents of ideologies such as Transhumanism and techno-progressivism view continued technological progress as beneficial to society and the human condition.



Indeed, until recently, it was believed that the development of technology was restricted only to human beings, but recent scientific studies indicate that other primates and certain dolphin communities have developed simple tools and learned to pass their knowledge to other generations.

Conclusion

Recent advances in high added-value textiles which incorporate electronics, smart systems, are responsive or highly-functional; create opportunities to deliver new markets and improvements, to the textile industry. These developments are achievable via advances in science and technology, and collaborations between people from a variety of backgrounds and disciplines.

New technologies set to dramatically change the face of the textile industry, with the advent of wearable electronics and devices, clothes that integrate images, monitor the state of your health, deliver 'feel-good' scents and aromas, are stay-clean and stay-fresh, and never require ironing, delegates with an insight into the future world of the textile industry. The "New Technologies and Smart Textiles for Industry and Fashion" key representatives, as well as introducing a host of talent to the young textile developers.

This article was originally published in the Textile Review magazine, December, 2012, published by Saket Projects Limited, Ahmedabad.

About the Authors:

M. Usha is a Lecturer at the Department of Management (UG) at the Karpagam University, Coimbatore.

Dr. M. Nandhini is an Assistant Professor at the Department of Management (UG) at the Karpagam University, Coimbatore.

Dr. P. Palanivelu is the Controller of examination at the Karpagam University, Coimbatore.