



22
EDITION

CHAMBER'S COMMUNICATOR

THE SIALKOT CHAMBER OF COMMERCE AND INDUSTRY

sialkot@scci.com.pk

www.scci.com.pk

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



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EDITOR'S NOTE

It gives me a great pleasure to present to you the CHAMBER'S COMMUNICATOR; the initiative of Sialkot Chamber of Commerce & Industry in continuance of the legacy and traditions of adding innovative value-added services for its members.

At Sialkot Chamber of Commerce & Industry, we are committed to provide you with updated information, to help you manage your businesses at par and also provide you with sufficient tools so that you can truly optimize yourself with the globalized world as an entrepreneur. Chamber's Communicator is the result of same commitment and dedication towards you as our primary focus and our number one priority.

I am delighted to share with you the 22nd Edition of this E-Magazine. It has been an over whelming experience for us to provide you the latest information through this E-Magazine which is now being continued again. We are striving to keep up with our reader's expectations.

Therefore, in this 'Edition' we have some interesting things coming to you including informative articles, Reports, Tips for Improvement and other productive information/data for our business community. We firmly believe that this publication would become an essential tool for anyone related to the Industry.

We assure you that Sialkot Chamber of Commerce & Industry would keep on taking similar initiatives for the betterment of the Industry and we would be honored to get your support in making this venture better in future through your valuable feedback and inputs.

Profound Regards,

Tariq Mahmood Malik
Secretary General



PRESIDENT'S MESSAGE

I, on behalf of the Sialkot Chamber of Commerce & Industry, present best compliments to the Business Community of Sialkot. This esteemed Chamber is always devoted to serving the Sialkot Industry as an Apex Body and is always striving to grow this Industry with all possible efforts & treasures.

As per the legacy of this prestigious organization, I am delighted to announce the republishing of SCCI's E-Magazine "CHAMBER'S COMMUNICATOR" for the Business Community of Sialkot. With the utmost pleasure, I would like to share with all of you that the E-Magazine will definitely prove as a hallmark of quality reading material on the business and industry-related knowledge.



This initiative is a tradition that should be continued with the aim to spread new & innovative ideas, information, and exposure to the reader/our business community.

It has been an exciting experience to provide information on different international markets, potential trade destinations, innovative ideas, skills & system development, business improvements & enhancement, etc. through this E-Magazine which is now being continued again.

I believe that the step towards knowledge sharing through this medium will become the source of information & inspiration for all our readers/members. Sialkot Chamber of Commerce &

Industry assures that we would keep on doing such efforts for the growth of our Industry by nourishing this plant with the water of knowledge. And we are always looking forward to the support & valuable feedback of our readers/members to make sure this treasure is a success.

Profound Regards,

Muhammad Ashraf Malik
President

Importance of Slogans in Branding:

What is slogan? A slogan is a catchphrase describing a product or company and illustrating the key benefit that you want to connect with your brand. Slogans are a key element in the identity of a brand and add to the value of a brand. Approximately all brands employ slogans in today's marketplace; they improve the identity of a brand, aid in its recognition, recall and help create brand differentiation in the minds of consumers. Brand slogans are effective keystones in building brand equity. They provide continuity throughout advertising campaigns and facilitate the establishment and maintenance of a strong brand identity. Each year, Business Week reports brand equity of major brands as estimated by the Interbrand - Global Brand Consultancy. The dollar value of a brand's equity is generally based on its ability to generate "economic" profits. Brand equity is the differential effect of brand knowledge on consumer response to marketing efforts. Thus, differentiation lies at the heart of a brand's equity. Without differentiation, a brand can never seek a premium or earn economic profits.

However, slogans play an important role to enhance brand awareness and brand image, and, in turn, influence brand knowledge. Branding is the process of giving meaning to specific businesses, products or services by creating and developing the brand image in the minds of consumers. Brand Slogan is a technique developed by organizations to help people identify and appreciate their brand easily and give them a reason to choose their products over the competitors. The two primary factors that influence brand knowledge are brand awareness and brand image. The most common indicators of brand awareness are brand recall and brand recognition. Brand recall is the respondent's ability to remember the brand without any aid. Brand recognition, on the other hand, is aided recall, an easier task; it is the respondent's ability to identify the brand from a list that is provided. Brand image is typically assessed by examining the type and strength of brand associations. An advertising slogan tells a lot about your company. When a business develops an effective advertising slogan, which is memorable and depicts an accurate picture of what your business is all about, then the slogan becomes an important part of your brand.

In 1997, Pizza Hut ran a series of ads declaring “war” on “skimpy, low-quality pizza,” challenging anyone to find a better pizza than Pizza Hut. One of its competitors, Papa John’s, took up the challenge by running spots featuring Frank Carney, a co-founder of Pizza Hut, who by that time was a Papa John’s franchisee. Touting the quality of Papa John’s, the commercials made specific claims regarding the superiority of the company’s sauce, dough, or toppings, and concluded with the slogan “Better Ingredients. Better Pizza.” The ads proved very effective; within a year, Papa John’s market share increased significantly while Pizza Hut’s declined. Ultimately, Pizza Hut sued Papa John’s, asserting that the “Better Ingredients. Better Pizza” slogan was a false advertising claim. In the end, Papa John’s prevailed, as the court ruled that its slogan was essentially marketing “puffery” because the term “better” was not quantifiable. The entire story, however, demands a significant commitment of time and resources from each firm. Clearly, this case illustrates the power of slogans as the central front of a brand’s overall communication strategy.

Tips for Creating Effective Slogans:

Followings are some guidelines to be followed for creating effective slogans:

Keep your eye on the horizon, Brand strategy is about knowing where you are and, more importantly, where you are going. It demands long-term vision and avoiding the constraints of a slogan that defines the brand too narrowly. Slogans created today should be able to embrace tomorrow’s business, because they can be changed if necessary, this expensive exercise should be avoided.

Every slogan is a brand positioning tool, it should position the brand in a clear manner. A brand can be positioned in many ways, and is often positioned on features or benefits.

Brand should have a clear positioning and the slogan should highlight the brand’s main strengths in a clear manner.

Repeat the advertising slogan, since most advertising campaigns involve multiple ads over the course of the campaign period, the specific ideas communicated in the advertisements will necessarily vary across different ads. In many cases, the slogan is the only element that can be kept absolutely consistent from ad to ad, creating the repetition that makes slogans memorable and which, in turn, leads to a consistent brand image.

Employing jingles, some brand jingles and slogans are easily remembered. Others are easily forgotten. There is a fair amount of evidence that jingles enhance memorability, especially in the short run. Given enough time and repetition, however, jingles may not be recalled at a significantly greater rate than non-jingle slogans. A good jingle is catchy and creative, boasting the information you want listeners to remember above all else.

Be creative, “keep it simple” principle is not a golden rule when it comes to slogans. In creativity, the importance is how firm can differentiate itself from its rivals. Creativity is seemed as an effective tool in advertising slogan and its success in reaching potential customers.

COUNTRY IN FOCUS

JAPAN

Japan is a liberal democracy with the world's third largest economy, an established rule of law and a vibrant civil society; Japan is the nation raised from the clutches and conquered the world. In 1603, after decades of civil warfare, the Tokugawa shogunate (a military-led, dynastic government) ushered in a long period of relative political stability and isolation from foreign influence. For more than two centuries this policy enabled Japan to enjoy a flowering of its indigenous culture.



Japan opened its ports after signing the Treaty of Kanagawa with the US in 1854 and began to intensively modernize and industrialize. Japan's economy achieved remarkable growth in the second half of the 20th Century after the devastation of World War II and its role in the international community is considerable. In 2011, Japan's have faced natural disaster; the strongest-ever earthquake, and an accompanying tsunami, devastated the northeast part of Honshu island, killed thousands, and damaged several nuclear power plants.

The calamity staggered the country's economy and its infrastructure, but Japan had proved as passionate & hardworking nation to raise above all the difficulties. Japan is divided into nine region and 47 prefectures. Each region is economically independent and has its own initiatives for foreign trade.

Tokyo being the capital is the hub of major economic activities, while Osaka is famous for its clusters of Textiles, Fruit & Vegetables, Pharmaceuticals and SMEs. Therefore, a focused trade promotion strategy is being practiced for each region.

In the context of Japan China Bilateral relations, the Japanese private sector is looking for an alternate source to China under 'China plus one Strategy'; during last few years, there was a decrease in imports of textiles from China.



All major competitors are offering themselves as an alternate to China through their aggressive marketing efforts. It is also high time for Pakistan to make all possible efforts for actively engaging with Japanese entrepreneurs especially the SMEs as they play a vibrant role in the country's economy.

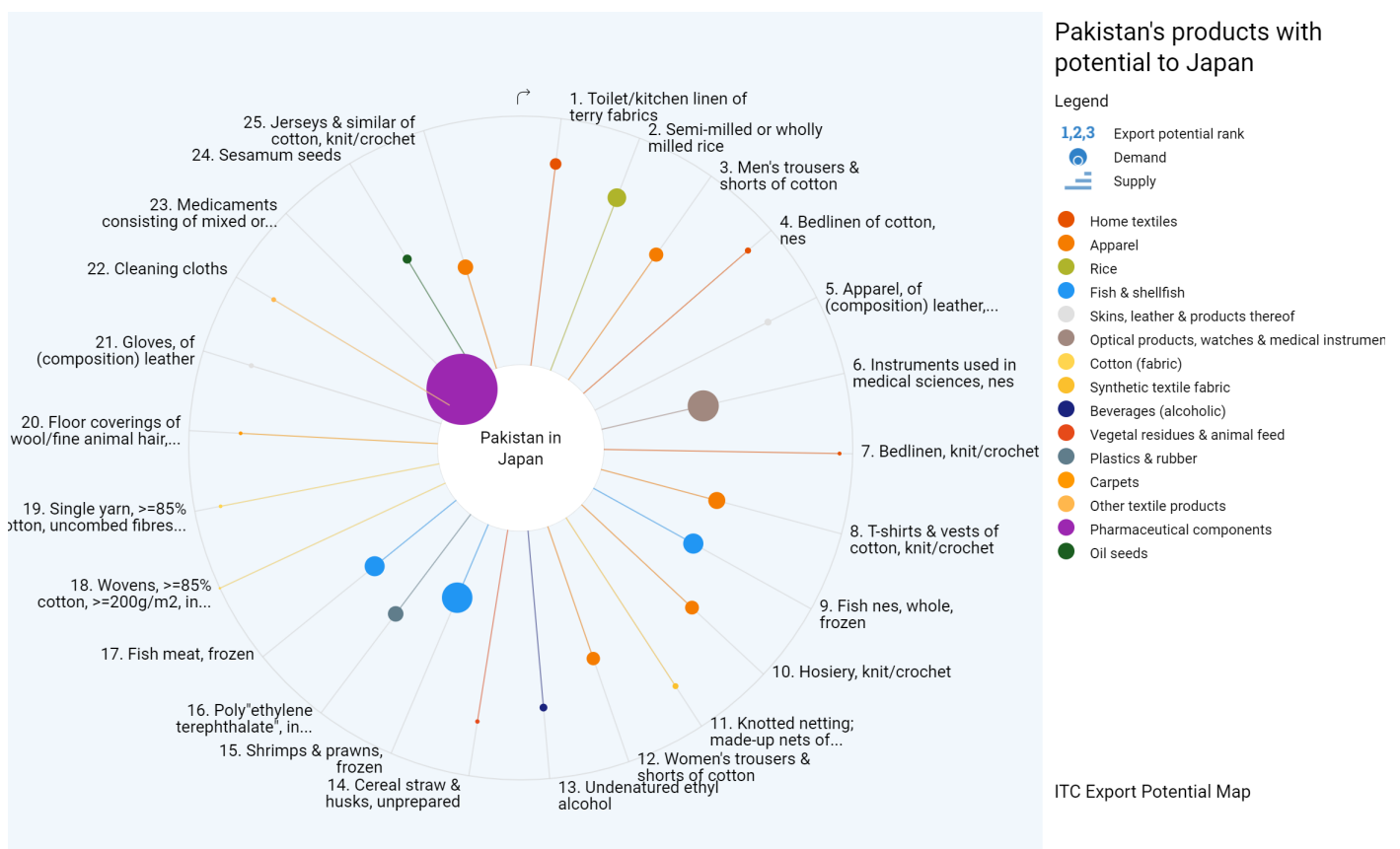
Pakistan's economy, being export-oriented, faces many internal challenges as well as external risks. Government of Pakistan is looking forward to build strong economic ties with developed economies like Japan to stabilize its economy. Japan has always been considered as a potential market for Pakistani exporters as it is an important trading partner of Pakistan. Last year (in 2019) the Government of Japan signed a Memorandum of Cooperation (MOC) with the Government of Pakistan regarding the "Specified Skilled Workers"

which aims to pave the way for skilled Pakistani workers to get employment opportunities in Japan under this cooperation framework after passing the required examination.

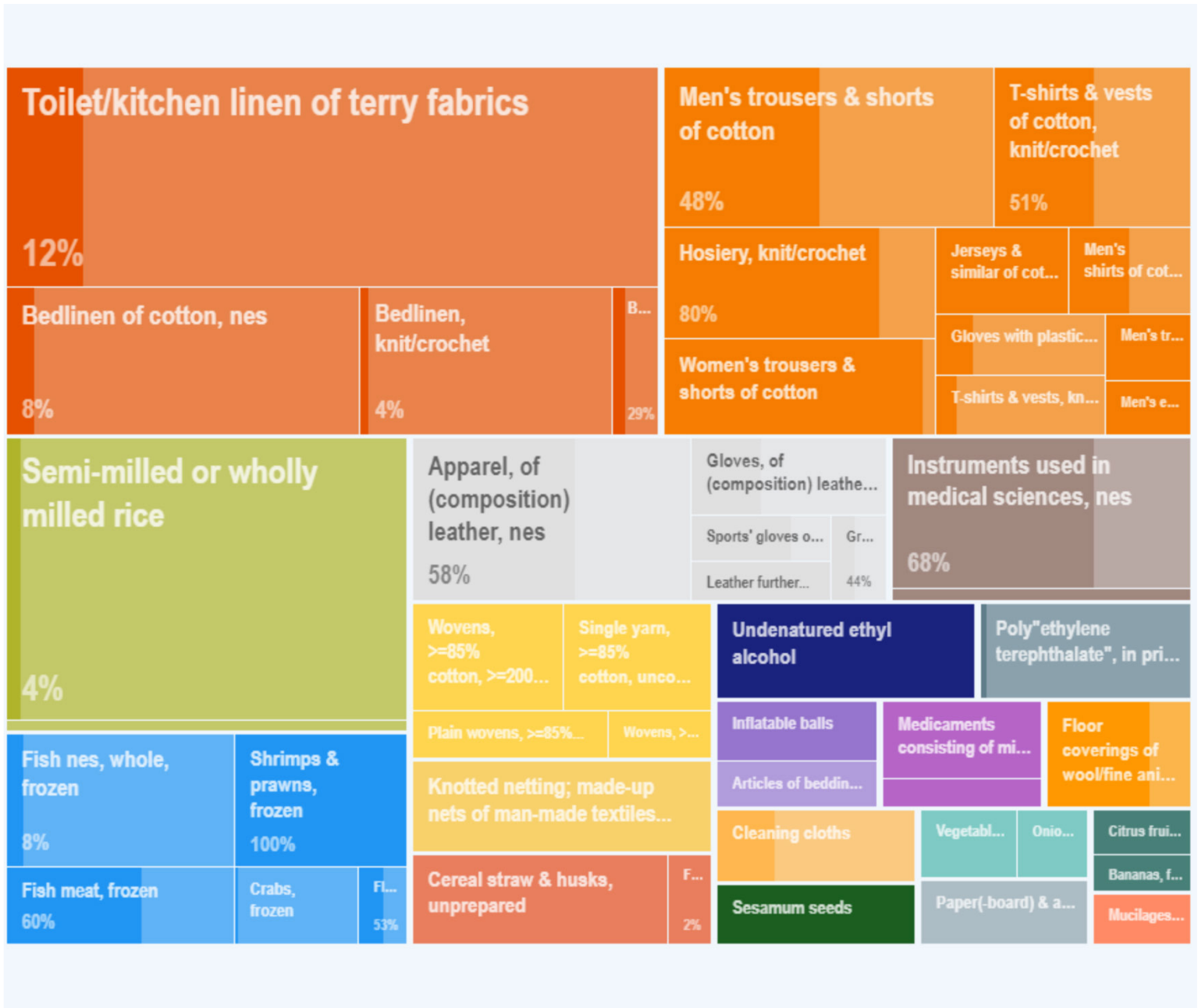
Pakistan is among the top ten countries where Japan is looking to hire skilled human resource during the second phase of this policy. This cooperation would provide job opportunities for Pakistani workers and beyond that, this framework will create new opportunities for Japan-Pakistan cooperation including education, business and tourism. I hope many talented Pakistani workers would get an opportunity to work in Japan through this cooperation framework. Japan is one of the largest import destinations of Pakistan. Therefore, balance of trade always remains in favor of Japan.

Pakistan's Export Potential to Japan

As per the data of United Nations COMTRADE database on international trade, Pakistan exports from Japan were US\$ 216 Million during 2018 and Pakistan imports from Japan was US\$2.27 Billion during 2018. Moreover, Japan would be hosting World Olympics in 2020, opening window for our sports goods. It is a big opportunity for Pakistan that Japanese companies especially in textiles are looking for alternate placement of orders under China plus one policy. Furthermore, Japan is a growing market for halal food, especially the processed halal food and the graying society of Japan is offering opportunities for our agriculture, nursing and paramedical services.



Keeping in view the market requirements, Japanese consumer preferences, competitors' strategies and changing dynamics of Japanese market, an integrated product focused approach is devised to enhance Pakistan market share in this market. Selection of product sectors of Pakistan has been made on the basis of competitive advantages, production base, global acceptability and market demand. At the first stage five product sectors including Textile especially Home Textiles, Leather, Food, Sports Goods and Surgical Instruments have been identified. So, all trade and investment promotion activities would be primarily focusing these sectors.

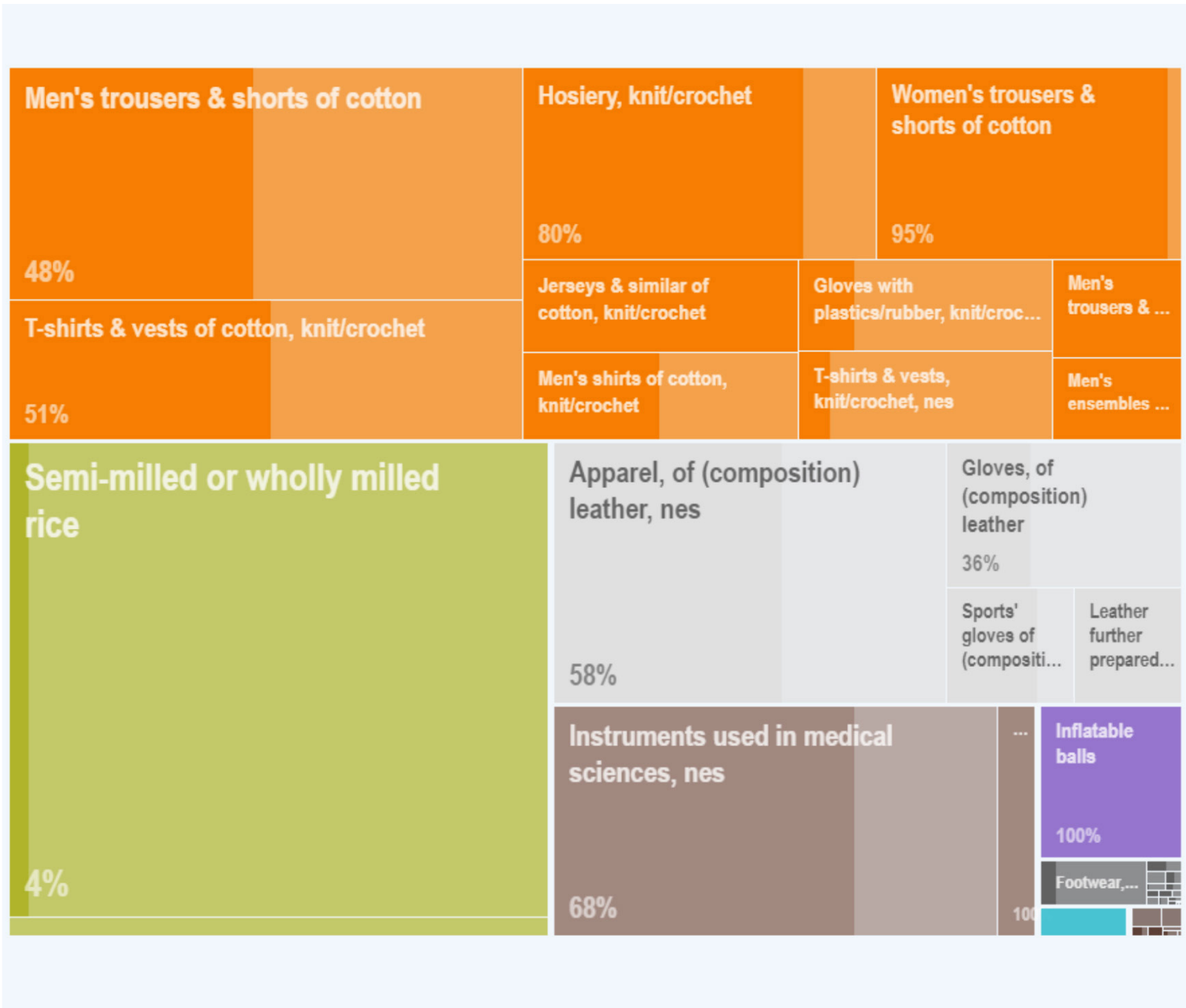


Pakistan's products with potential to Japan

Legend

- Export potential
- Realized potential
- Home textiles
- Apparel
- Rice
- Fish & shellfish
- Skins, leather & products thereof
- Optical products, watches & medical instruments
- Cotton (fabric)
- Synthetic textile fabric
- Vegetal residues & animal feed
- Beverages (alcoholic)
- Plastics & rubber
- Miscellaneous manufactured products
- Pharmaceutical components
- Carpets
- Other textile products
- Oil seeds
- Vegetables
- Paper products
- Fruits
- Other food products

ITC Export Potential Map



Sialkot's products with potential to Japan

Legend

- Export potential
- Realized potential
- Apparel
- Rice
- Skins, leather & products thereof
- Optical products, watches & medical instruments
- Miscellaneous manufactured products
- Footwear
- Metal products
- Musical instruments & parts

ITC Export Potential Map




Details of Exhibitions for Japan 2020

1. JITAC European Textile Fair, 17 - 19 Mar 2020, Bellesalle Shibuya Garden, Tokyo, Japan
2. Medtec Japan, 16 - 18 Mar 2020, Tokyo Big Sight, Koto, Japan
3. Beauty Goods & Cosmetics Show, 17 - 19 Mar 2020, Tokyo Big Sight, Koto, Japan
4. Osaka Motorcycle Show, 21 - 22 Mar 2020, INTEX Osaka, Osaka, Japan
5. Tokyo Motorcycle Show, 27 - 29 Mar 2020, Tokyo Big Sight, Koto, Japan
6. Fashion World Tokyo, 01 - 03 Apr 2020, Tokyo Big Sight, Koto, Japan

Key findings

The products with greatest export potential from Pakistan to Japan are Toilet/kitchen linen of terry fabrics, Semi-milled or wholly milled rice, and Men's trousers & shorts of cotton. Toilet/kitchen linen of terry fabrics shows the largest absolute difference between potential and actual exports in value terms, leaving room to realize additional exports worth

 \$26.2 mn.

Key findings

The products with greatest export potential from Pakistan to Japan are Toilet/kitchen linen of terry fabrics, Semi-milled or wholly milled rice and Men's trousers & shorts of cotton. Pakistan has the highest supply capacity in Wovens, $\geq 85\%$ cotton, $\geq 200\text{g/m}^2$, in three/four-thread twill, unbleached.  Medicaments consisting of mixed or unmixed products, for retail sale is the product that faces the strongest demand potential in Japan.



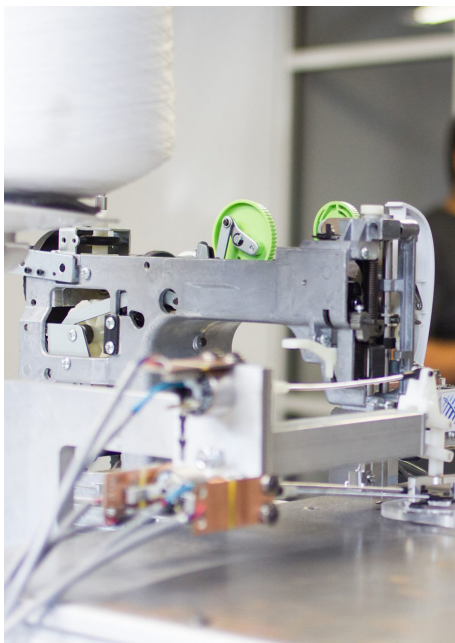
AUTOMATION IN GARMENT MANUFACTURING - A NEW HORIZON

The apparel manufacturing process is labor-intensive and now heading toward automation because of several advantages. The application of automation and robotics can transform the labor-intensive garment production into high-tech production centers.

The automation can perform small tasks such as bobbin change to the use of sewing robots to produce the entire garment with improved quality, reduced cost, and reduced lead time compared with human work. Although the manufacturing of the entire garment is not commercially successful until now, it will be a reality in the near future. When automation is adopted in any process during garment manufacturing, the manufacturers should be aware of the pros and cons of installing automatic equipment.

The automation has not gained much success in garment manufacturing because of the flexibility of fabrics. For automated fabric handling, the relative changes in the humidity and temperature can lead to difficulty during material handling. Hence, the precise control of fabric and environment is very essential. For reliable results in automation, the fabric need to be manufactured with consistent quality and the environment should not change rapidly in humidity. The fabric handling area is the most challenging field of research for many researchers. In the future, the research and development teams, garment manufacturers,

and OEMs should look into alternative approaches for effective gripping and transferring of fabrics by using precise engineering principles. If a real solution is achieved, it will be a large success for a number of industries to adopt automation in fabric handling. In the future, the application of automation and robotics will be increasing in garment production. However, complete automation of clothing manufacturing may not be feasible because of the complex nature of the production systems and cost factors. As cost is the prime driving factor in garment manufacturing, the company owners in several instances do not want to install expensive automation tools and equipment. Hence, the scope and level of automation in the future will be directly influenced by the labor cost in garment manufacturing. If the labor cost increases substantially, the manufacturers will focus on automation techniques to reduce the cost of production. It is believed that in the future when automation becomes a reality, several workers will lose their job, which may not be true always. Although automation can perform the jobs done by multiple workers, there will be new jobs emerging because of automation. For example, the need to run the control software of the automation equipment and robotics can create more high-wage jobs compared with the low-wage manufacturing jobs. Hence, workers can acquire these skills and earn high wages. There will be always some demand for high-skilled people to modify the program, maintain the machinery for automation. Fabric inspection, spreading, cutting, sewing, pressing, and material handling are some of the areas where automation can be adopted in garment manufacturing. Automation is achieved by the use of automatic tools and equipment embedded with sophisticated electronic devices or even by the use of robotics. Although not successful commercially,



the use of robots with high-speed sewing machines have helped to produce complete garments without the use of labor. In the future, these processes will be extended to commercial manufacturing of garments fully by the robots. An increase in production efficiency, quality accuracy and reduction in the lead time are some of the benefits achieved by automation. There are several areas where automation reduces human intervention to a minimum resulting in the saving of labor and energy and improved precision. Although automation eliminates human operators from a specific job, they create new jobs to assist the automatic tools and equipment. In the future, the garment manufacturing will be fully automated that will eliminate the requirement for high-skilled labor. This will help the industries to gain competitive advantage and keep their product cost low.

UNDERSTANDING THE SEWING THREADS

Sewing threads are special kinds of yarn that are manufactured by twisting short fibers or by continuous filaments yarns. At times two or more yarns are combined to make the thread to get the required strength.

Sewing Thread Classification: Sewing thread could be classified in numerous ways. Some common classifications are those based on:

- Substrate
- Construction
- Finish

Classification based on substrate:

- **Natural:** The utilization of sewing thread produced from natural fibers is very rare in industrial applications and cotton is the most frequently used natural sewing thread.
- **Synthetic:** The synthetic fibers have several advantageous characteristics compared to natural fibers such as high tenacity, better resistance to chemicals and higher abrasion resistance. Further, they are also not considerably influenced by rot, mildew, insects, bacteria, and moisture.

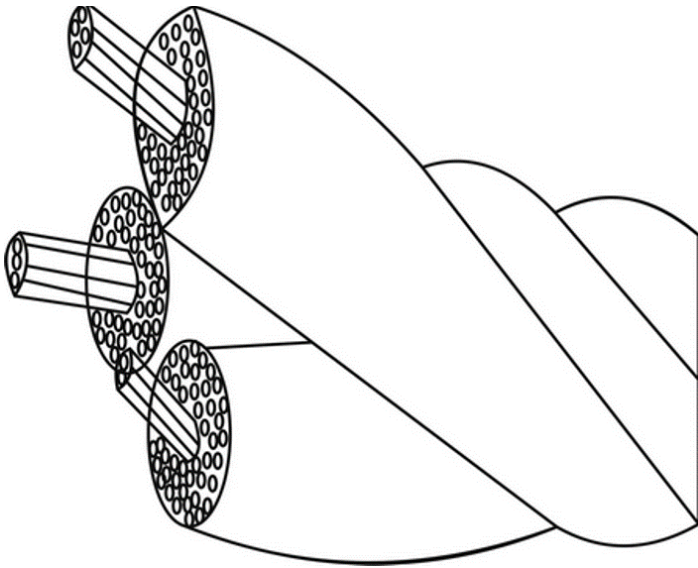
Classification based on thread construction:

Spun threads: It is produced by utilizing natural as well as synthetic fibers. Spun polyester is the most frequently used sewing thread in garments. Spun threads have a hairy yarn surface, which provides better lubrication properties and softer hand. It gives exceptional sewing performance, however, it is lesser than the strength of continuous filaments.



1. Cotton threads:

- Soft cotton threads
- Glazed cotton thread: The glazed process gives the thread a hard finish that shields the thread from abrasion and improves ply security



- Gassed thread: Gassing process otherwise known as the singeing process is used to remove the protruding hairs and produce a lustrous thread. It is produced by moving the cotton sewing thread over a flame at a higher speed to reduce the hairy fibers on the surface of the thread.

- Mercerized cotton thread: The cotton yarns are treated with caustic soda with 16%–18% concentration to improve the strength and luster

2. Linen thread

3. Silk thread

4. Spun synthetic – fiber threads

5. Spun blended sewing threads

Core Spun Threads: Core spun thread (Figure-3) is a mixture of staple fibers and filaments.

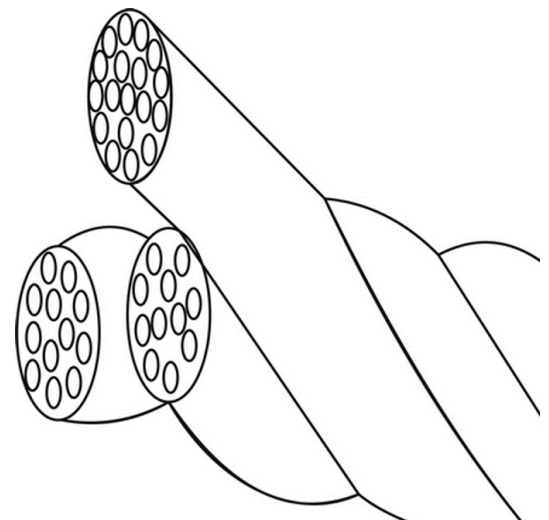
The most commonly used core spun sewing thread has a multiple-ply structure, with each ply comprising a core polyester filament wrapped by the cotton or polyester staple fibers. The strength of thread is provided by the filament and sewability by means of cotton or polyester fiber wrap.

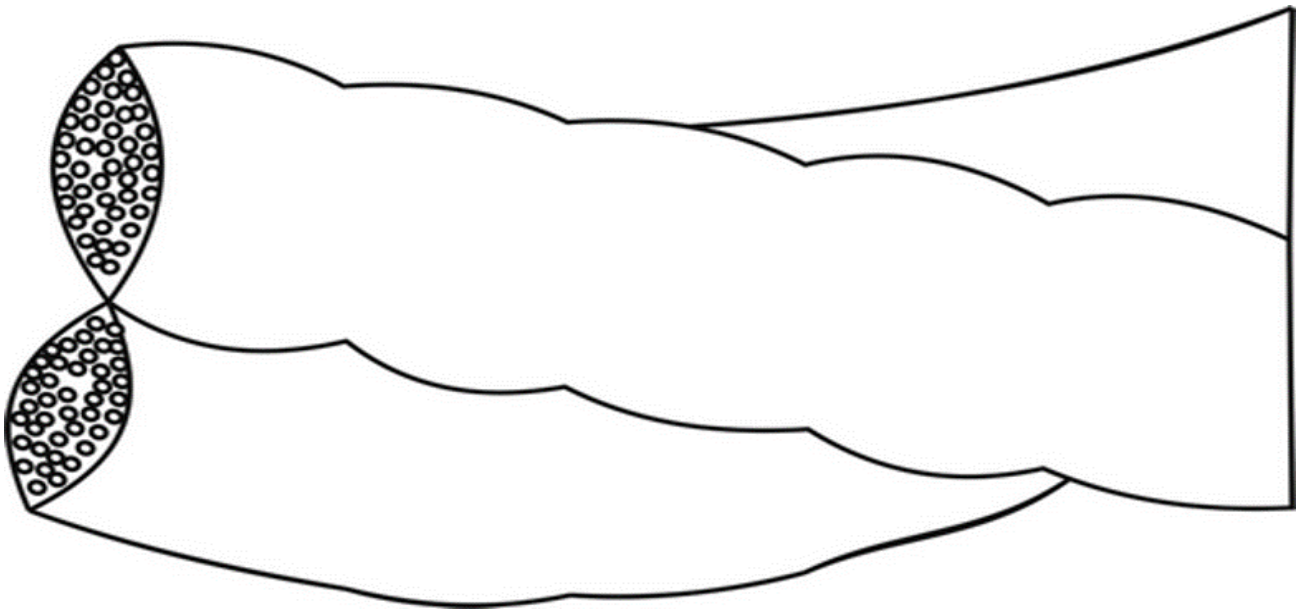
Continuous Filament Threads: It is produced by extruding the filaments from the synthetic polymer and is given a twist to improve the strength. The strength of these threads is stronger than spun threads for the same thread size.

Monofilament Threads: Monofilament sewing thread is produced from a single continuous fiber with a specific fineness. Although the monofilament sewing threads are stronger, more uniform and cheaper, they lack flexibility and are rough in feel. Because of this limitation, it is limited to the sewing of hems, draperies and upholstered furniture.

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Multifilament Threads: Multifilament sewing thread (Figure-4) is generally produced from nylon or polyester and is utilized where high strength is a principal requirement. It comprises two or more continuous filaments twisted together to give more strength. It is frequently used to sew leather garments, shoes and industrial products. Three kinds of multifilament sewing threads are lubricated, bonded and braided threads.

Textured Threads: The texturization enhances texture to the continuous filament yarns by providing softness and bulk. They are then slightly twisted and heat set to make it permanent. The texturized sewing threads give exceptional seam coverage. Although these threads provide more cover and high extensibility, they are more subject to snagging. The types of textured sewing threads are (i) false twist textured filament threads, (ii) air textured filament threads and (iii) air-jet intermingled filament threads

Embroidery Threads:

- Mainly required for decorative purposes
- Colour and luster are two main requirements for embroidery threads
- Mostly made from mercerized cotton, silk, viscose rayon and polyester fiber/filament yarns

Technical Threads:

- Specifically developed for technical/industrial uses
- Perform satisfactorily in adverse climatic, industrial conditions and heavy-duty applications
- Generally made from aramids, glass, ceramics, etc.

Classification based on thread finish:

Normally special finishes are provided to the sewing thread for two purposes:

1. To enhance the sewability of the thread – Certain finishes improve the thread strength, lubrication property and abrasion resistance.
2. To accomplish a specific functional requirement – Several types of finishes impart special finishes such as fire retardant, water repellent, anti-fungal and anti-static finishes.

WOMEN RESOURCE CENTER

A STEP TOWARDS PROGRESS

Over the years, the Sialkot Chamber of Commerce and Industry has established itself as a dynamic organization that has very effectively worked towards the betterment of not only the Industry of Sialkot but also all walks of the community especially women. In this day and age, no economy can succeed without the active participation of women in all sectors. As it is true that;

“WOMEN’S progress is critical to a NATIONS’ progress and WOMEN’S economic participation is critical to a NATIONS’ economic prosperity.”

Being an apex Trade Body of Sialkot, the activities of SCCI are manifold and multidimensional in nature. It has always strived to facilitate the business community and initiating numerous remarkable Projects. “Women Resource Center - WRC” through the platform of Sialkot Chamber is also one of those projects, established in 2009 with the collaboration of CIPE (Center for International Private Enterprise). It was conceived to provide full support/assistance to the Women Entrepreneurs with the mission;

“The mission of Women Resource Centre (WRC) is to enhance entrepreneurial skills among Women Entrepreneurs of Sialkot by providing them easy access to resources for starting and growing their businesses.”

SCCI believes that women in our community deserve a platform that can provide practical solutions to their problems and expand their vision. The aim behind the formation of Women Resource Center is the realization of the fact that the role of women in economic development is as significant as that of the male population.



It is a platform that identifies key issues of women entrepreneurs, provides information, builds awareness, educates them, promotes opportunities and encourages them to participate in upcoming activities to explore diverse business fields through the ongoing support of the Sialkot Chamber of Commerce & Industry.

The Sialkot Chamber of Commerce and Industry has formed the Departmental Committee on Women Entrepreneur (WEC) to serve all women entrepreneurs of Sialkot. The Committee (WEC) believes in creating an environment that is conducive to working women at every level. Its foremost goal is to increase women’s participation in the commercial sector as it is important for our country’s economic success. It works with a number of government and non-government agencies to provide relevant resources to our members through arranging workshops, informational seminars and institutional liaisons.

We encourage and welcome women who are already engaged in any business as well as those planning to start a new venture to join us.

We believe that together we can make huge strides towards making women of Sialkot just as successful as their male counterparts in the commercial sector and a major contributor to our national economy.



ARE PLASTICS ENVIRONMENT FRIENDLY? WELL. YES!!!

Our environment consists of species that are very sensitive and vulnerable in nature. The plastics we use in our daily routines, including for commercial and domestic purposes, leave a very irrevocable impact on the environment and on the creations either they are animals, trees or human beings. A study had been conducted by World Wide Funds for Nature (WWF) in October 2018 that highlights that around 100,000 marine mammals die every year due to plastic pollution, around the World. The figures drastically indicate that the utilization and disposing of, plastic items may have a very in-avertable effect on human lives, the shape of incurable deceases.

Plastic is a commonly utilized packaging product that is frequently used in our society, either we use it to wrap our Sports Goods or Scissors, Gloves or Leather jackets for protecting it from moisture, dust or avoid them from getting damaged or being used in restaurants for takeaways. Similarly, the utilization of plastic packaging in our Commercial activities such as eatables and beverages and also for water bottles, which eventually impact the health of human beings, since the plastic gradually decomposes when exposed to light and heat. The plastic used for packing the preserve-able can leave an adverse effect on the composition and may destroy the nutritive that are important for the health.

Over the years, scientists have conducted multiple types of research to decrease the life of plastic, which according to a study is more than 400 years, and concluded that by adding decomposable elements into the manufacturing process of polythene may help in decreasing the life of the plastic bags, bottles and packaging materials.



As, plastics are very often used being lightweight, flexible, reusable, recycled and turned into a byproduct, resistant to moisture, its utilization and easy use approach have led them get infiltrate in our lifestyle. Activists and NGOs around the world have been vocally raising the voice to stop the use of plastics, as a worldwide threat of untreatable illness including cancer, hepatitis, asthma and liver damage. The trash bags and other stuff which are thrown on the roadsides and streets never get dissolved into the soil and are mostly eaten by animals and birds or thrown in the water had a very negative effect.



Biodegradation is a natural recycling system that converts plastics into nutrients, due to the addition of certain chemical composition into it, however, the regular plastic bag and bottle that do not dissolve into the soil, until being broken down by heat and ultra-radiation.

Biodegradable plastics D2w commonly known as environment-friendly plastic are widely used for packing and other purposes in western countries, in light of emerging threats of plastics. In Pakistan, a few companies have started utilizing D2w plastics, in the wake of alerts of the environment. Unfortunately, Sialkot city has been severely affected by a lot of impurities, polluted water being dumped into the soil, air pollution which had put a serious impact on the overall health and quality of our environment (Air Quality Index 161 source <https://www.airvisual.com/>).

D2w plastics (compostable plastics) have an industrial compostable shelf life of 1 to 1.5 years and also have a 6-month shelf life for garden compostable. Studies have referred that using Biodegradable plastic would have more environment-friendly effect, due to their controlled shelf life and decomposition into the soil even a speculated time-frame, nevertheless, the Commercial aspects of such plastics cannot be neglected, since the company is offering a quality product within a packing that is also environmentally friendly. The scientists are also working on the possibilities of developing the next generation of plastics i.e. oxo-biodegradable that would indulge in the soil gradually, converting into a seed and pop-up as a plant.

Sialkot Chamber of Commerce and Industry has been conducting multiple awareness-campaigns, increasing the knowledge of the exporters, society and all stakeholders to enforce the utilization of plastics that are environment-friendly, i.e. D2w, in order to save our environment and species living within it.

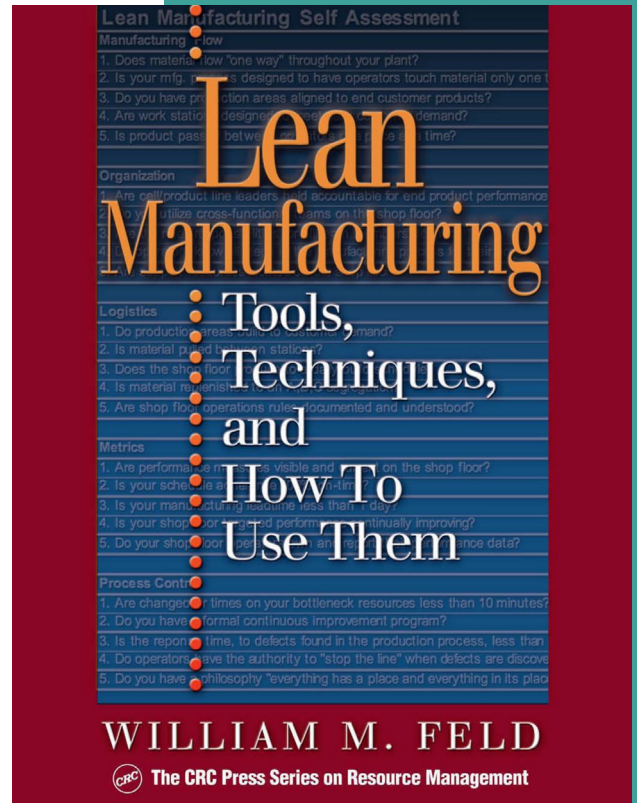
Lean Manufacturing: A “Holistic” View

Sialkot Chamber's Research & Development Cell is tasked with the responsibility to strive and explore avenues of knowledge that can be of benefit to the Manufacturing and Export Sector of Sialkot. In the same pursuit, our staff is dedicated to continuously explore and unearth material for the interest and reading pleasure of our members. Keeping in view the same, we are pleased to introduce a book series that would be continued in our Chamber Communicator's edition wherein we would share the knowledge of latest business techniques chapter-wise among our valued readers. To start with, we have selected an outstanding book “Lean Manufacturing – Tools, Techniques, and How to use them” by acclaimed author William M. Feld. In this edition, we present to you the first chapter, Lean Manufacturing: A “Holistic” View, which would set the tone for future editions.

Happy Reading!

What Is Meant by Holistic!

What is meant by the word holistic! Is it meant to imply a well-rounded perspective? Is it used to describe an overall state of wellness? Does it mean all-encompassing? If we check the definition according to Webster's English Dictionary, holistic means “emphasizing the organic or functional relation between parts and wholes” Now, none of these definitions of holistic is necessarily wrong; however, when associated with our description of lean manufacturing, the concept of holistic is meant to imply the interconnectivity and dependence among a set of five key elements.



Each individual element is critical and necessary for the successful deployment of a lean manufacturing program, but no one element can stand alone and be expected to achieve the performance level of all five elements combined.

Each of these elements contains a set of lean principles which, when working together, all contribute to the development of a world-class manufacturing environment, often reflected by a company inventory-turn level of 50 or higher. As described by Schonberger in his book, *World Class Manufacturing: The Next Decade*, inventory turns provide comparable anecdotal evidence of the level of performance of a company regardless of changes in economic swings, monetary policies, trade practices, or internal company manipulations: “We need not rely on case studies or news clippings. One statistic extractable from corporate annual reports tells the story with surprising accuracy: inventory turnover (cost of sales divided by on-hand inventory).

It happens that when a company manages its processes poorly, waste in the form of inventory piles up.”

Not only are these lean principles interactive and co-dependent, but there is also a fundamental relationship that exists among these principles as to the sequence by which they should be deployed. So, what exactly are these five elements and what makes them so co-dependent?

Description of the Five Primary Elements

The Five Primary Elements for lean manufacturing are (1) Manufacturing Flow, (2) Organization, (3) Process Control, (4) Metrics, and (5) Logistics (Figure 1.1). These elements represent the various facets required to support a solid lean manufacturing program, and it is the full deployment of these elements that will propel a company on a path toward becoming a world-class manufacturer.

Following is a basic definition of each of the Five Primary Elements:

- **Manufacturing Flow:** The aspect that addresses physical changes and design standards that are deployed as part of the cell.
- **Organization:** The aspect focusing on identification of people’s roles/functions, training in new ways of working, and communication.
- **Process Control:** The aspect directed at monitoring, controlling, stabilizing, and pursuing ways to improve the process.
- **Metrics:** The aspect addressing visible, results-based performance measures; targeted improvement; and team rewards/recognition.
- **Logistics:** The aspect that provides definition for operating rules and mechanisms for planning and controlling the flow of material.

Manufacturing Flow

- Product/quantity assessment (product group)
- Process mapping
- Routing analysis (process, work, content, volume)
- Takt calculations

Metrics

- On-time delivery
- Process lead-time
- Total cost
- Quality yield
- Workload balancing
- Kanban sizing
- Cell layout
- Standard work
- One-piece flow

Process Control

- Total productive maintenance
- Poka-yoke
- SMED
- Graphical work instructions
- Visual control
- Continuous improvement
- Line stop
- SPC
- SS housekeeping
- Inventory (turns)
- Space utilization
- Travel distance
- Productivity

Organization

- Product-focused, multi-disciplined team
- Lean manager development

Logistics

- Forward plan
- Mix-model manufacturing
- Level loading
- Touch labor cross-training skill matrix
- Training (lean awareness, cell control, metrics, SPC, continuous improvement)
- Communication plan
- Roles and responsibility
- Workable work
- Kanban pull signal
- A, B, C parts handling
- Service cell agreements
- Customer/supplier alignment
- Operational rules



These primary elements provide full coverage of the range of issues that surface during a lean manufacturing implementation. Each element focuses on a particular area of emphasis and compartmentalizes the activities. Even though each element is important on its own for the deployment of a successful lean manufacturing program, the power comes from integration of the elements. For instance, Manufacturing Flow sets the foundation for change. People see activity on the shop floor, furniture being moved (sometimes for the first time), machines or floors or walls being painted, and areas being cleaned up. Excitement and energy surround this visible change. Add to this the less than visible changes in infrastructure relative to organizational roles and responsibility, new ways of working, training of personnel, multi function teaming, and identification of customer/supplier relationships. Finally, add the visible presence of shop floor measurements reflecting status, equipment being repaired, graphic work instructions being posted at work stations, and machine changeover times being recorded and improved. These primary elements complement one another and are all required to support each other as part of a successful implementation.

Most lean manufacturing initiatives focus on the primary elements of Manufacturing Flow, some on Process Control and areas of Logistics. Once in a while, there is the mention of Metrics and some discussion regarding Organization, usually training. This lack of attention to the whole is a shame, because it is the culture changes in Organization and the infrastructure improvements in Logistics that institutionalize the improvements and provide for sustained change within the organization. When initiatives focus on just the mechanics and techniques (indicative of both Manufacturing Flow and Process Control), the improvement is more about calculations and formulas than it is about improving workforce capability. Anyone can read a book, run a numbers analysis on demand behavior, calculate takt time, and establish a U-shaped layout, but doing so is not what will make a company differ from its competition. True competitive advantage comes from instilling capability within the workforce, and this can only be accomplished through:

(1) achieving demonstrated knowledge transfer by building an empowered workforce, (2) engaging all employees within the business by steering their collective energies in the same direction, and (3) empowering the workforce with clarified expectations, common purpose, and accountability to get the job done. An organization with this capability can be neither copied nor bought by the competition; it must be designed, developed, directed, and supported.

This book focuses on the relationships among each of the primary elements and provides a “how-to” road map for implementing lasting change. In order for these primary elements to function properly, they must be implemented in the form of stages or “building blocks.” Specific foundation prerequisites must be met prior to deployment of subsequent stages. The initial stages contain criteria that must be satisfied before implementing subsequent stages. These criteria are like the prerequisites for some college

courses. The first-level activities must be completed to serve as building blocks for subsequent stages. It is imperative that these stages be followed to avoid jeopardizing the implementation and to assure success in deploying the lean manufacturing program as quickly as possible for maximum benefit. Part III of this book will identify those stages and explain the appropriate sequence for implementation.

Lean manufacturing, as described in this book, is primarily focused on designing a robust production operation that is responsive, flexible, predictable, and consistent. This creates a manufacturing operation that is focused on continuous improvement through a self-directed work force and driven by output-based measures aligned with customer performance criteria.

It develops a workforce with the capability to utilize the lean tools and techniques necessary to satisfy world-class expectations now and into the future. As noted by Conner in *Managing at the Speed of Change*: “People can only change when they have the capacity to do so. Ability means having the necessary skills and knowing how to use them. Willingness is the motivation to apply those skills to a particular situation.” Viewing lean manufacturing from a holistic perspective should be able to satisfy the need to have both ability and willingness.

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MEET WITH TEAM MEMBERS





Tariq Mahmood Malik
Secretary General



Umair Nisar
Deputy Secretary R&D



Salman Mir
Senior R&D Officer



Mehmooda Butt
WRC Coordinator



Ammar Khan
R&D Officer



Faraz Saleem
Designer



Anum Jamil
Asst. R&D Officer

Gratude extended to all the readers.
Our team looks forward to your valuable feedback.
For Feedback: sialkot@scci.com.pk



ایوان صنعت و تجارت سیالکوٹ



Paris Road, Sialkot
+92 52 4261881-3
sialkot@scci.com.pk

