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Our Activities

- An Association with over 600 members from India and abroad working since last 68 years for the growth and development of Leather and its allied industries.
- Organize seminars, symposiums, workshops in order to share information, knowledge & latest development and interactions for the benefit of all concerned.
- Organize Human Resource Development programmes on regular basis.
- Publish for over 60 years, a technical monthly journal namely "Journal of Indian Leather Technologists' Association" (JILTA), widely circulated through out the World.
- Publish books for the benefit of the students at various levels of study, for the Research Scholar and the Industry.
- Work as interface between Industry and the Government.
- Assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies for the growth of the Industry.
- Assist small and tiny leather goods manufacturers in marketing their products by organizing LEXPOs in Kolkata and different parts of India.

Indian Leather Technologists' Association
[A Member Society of International Union of Leather Technologists' and Chemists Societies (IULTCS)]

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JOURNAL OF INDIAN LEATHER TECHNOLOGISTS' ASSOCIATION (JILTA)

Indian Leather Technologists' Association is a premier organisation of its kind in India was established in 1950 by Late Prof. B.M.Das. It is a Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS).

The Journal of Indian Leather Technologists' Association (JILTA) is a monthly publication which encapsulates latest state of the art in processing technology of leather and its products, commerce and economics, research & development, news & views of the industry etc. It reaches to the Leather / Footwear Technologists and the decision makers all over the country and overseas.

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Preservation of Soils

Pollution is the most worrisome aspect in present days and soil is affected to the extremity as an adverse effect of it. Soil pollution is a hidden danger that lurks beneath our feet. 1/3 of soils in our globe are already degraded and we risk losing more due to this hidden danger. Soil pollution can be invisible and seems far away but it affects everyone and everywhere. The growing population is expected to reach 9 billion by 2050 and soil pollution is a worldwide issue. It degrades our soils, poisons the food we eat, the water we drink and the air we breathe. The entity and domain of the problem are still unknown as no certain data are available on a global scale.

Soils have a great potential to filter and buffer contaminants, getting it degraded and attenuated to the negative effects of pollutants, but this capacity is finite. Most of the pollutants originate from human activities, such as unsustainable farming practices, industrial activities and mining, untreated urban waste and other non-environmental friendly practices. As technology evolves, scientists are able to identify previously undetected pollutants, but at the same time these technological improvements lead to new contaminants being released into the environment. It is time to uncover this threatening reality.

United Nations Observe World Soil Day (WSD) on 5 December to celebrate healthy soils for present – future security of food. The message of the year to "Keep soil alive, Protect soil biodiversity" urges us to focus our attention on the workers below the ground - from tiny bacteria to agile millipedes and slimy earthworms - all of which contribute to processes that are indispensable to life on Earth.

Loss of biodiversity is a worry now a days and soil is affected to the extremity by various misadventures. Soil is home to more than 1/4 of our planet's biodiversity. Yet, we do know 1% of this universe. There are more living creatures in a single teaspoon of healthy soil than there are people on Earth. Organisms in soil are responsible for many critical processes for preservation of ecosystem, on which humans depend i.e. from supporting growth of plant to storage of carbon and being itself a vast reservoir for pharmaceuticals. But biodiversity of soil is under stress! Unsustainable soil management affects life lives below the ground. Therefore, we have to take action to protect biodiversity of soil by self exploration at the earliest.

We must keep in mind that

- Soil is a living resource, home to more than one quarter (25%) of our planet's biodiversity .
- Up to 90% of living organisms live or spent part of their lifecycle in soils, yet we know only 1% of this hidden universe .
- Soil organisms work 365/24/7 in a coordinated effort to sustain life on Earth.
- Biodiversity of soil is an essential component of soil health. Healthy soils produce more nutritious and safer food. 95% of our foods are derived from soils.
- Organisms in soils help it store carbon and reduce GHG emissions.
- Biodiversity of soil contributes to the remediation of soil pollution by breaking down contaminant.
- Soils are vast, vital pharmacies. Almost all of the antibiotics that we take to help us fight infections are made using soil micro-organisms.
- In just 3 inches of soil, there are 13 quadrillion living organisms, weighing 100 million tonnes.
- One hectare of soil contains the weight equivalent of bacteria from two cows. These bacteria obtain nutrients from the cow's diet, and the cow gains energy from products of bacterial metabolism. Therefore, bacterial species are in a symbiotic relationship with cow. Such is the case with Escherichia coli, a non-ruminant bacterium that can cause the udder infection known as mastitis.

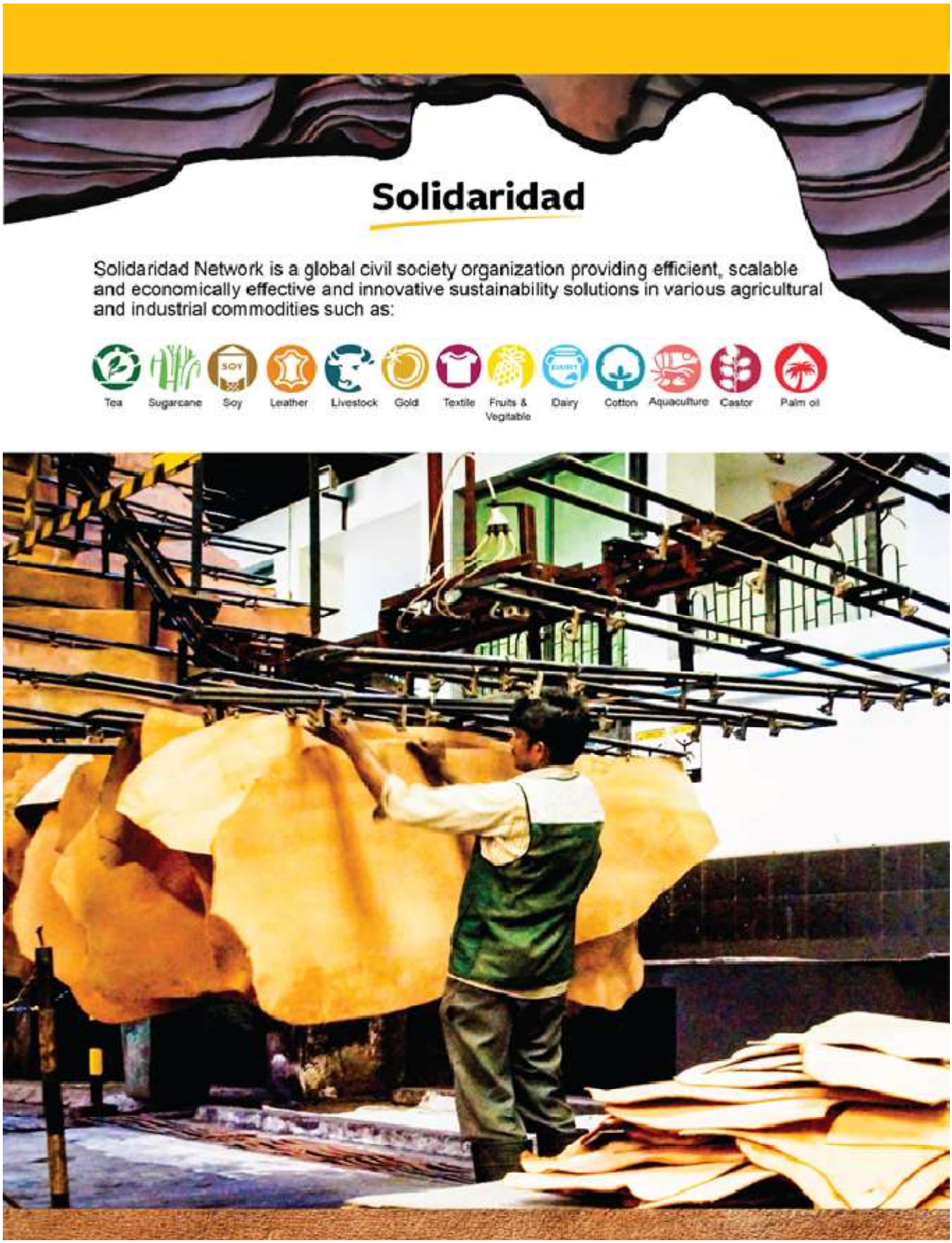
- There are more organisms in one gram of healthy soils than there are people on Earth.
- An earthworm can digest its own weight in soil every 24 hours. 50% of the planet soil passes through the gut of earthworms each year.
- Organisms in soil do process/ 25,000 kg of organic matter/ in a surface area/ equivalent to a soccer field, which is the/ weight of 25 standard cars.
- Globally, our soils act as a filter for contaminants, but their buffering capacity is finite. If the latter is exceeded, contaminants can enter the environment and the food chain.
- Soil pollution affects food security by reducing crop yields and food quality. Without healthy soils we wouldn't be able to produce our food and achieve Zero Hunger.
- Human activities are the main source of soil pollution. Therefore, it is in our hands to adopt sustainable soil management practices.
- Unsustainable agricultural practices lead to the release of pollutants into soils and the environment. For example, using manure from antibiotic treated livestock more responsibly helps prevent antimicrobial resistance.
- Composting and recycling at home can reduce the amount of waste that enters landfills and can improve soil health, reducing the negative effects of improper waste disposal.
- 1/3 of plastic produced ends up in our soils.
- Over 40 million tonnes of electronic waste is generated every year.
- Up to half of our shopping consists of packaging materials ending up to soils.
- Up to 1/2 of our household waste is organic but ends up in landfills.
- 1/5th of the raw materials used for producing new products are wasted.
- Around 50,000-100,000 chemicals are now commercially produced on a large scale and their production is projected to increase by 3.4% yearly until 2030
- Expanding cities are producing an ever-growing amount of municipal solid waste. 80% of our waste is not being recycled and ends up in landfills, contaminating our soils.
- About 4 billion people live in the 56 biggest mineral-producing countries. Due to soil pollution, agricultural productivity in mining areas decreases by 40% relative to areas farther.
- The agrochemicals market is increasing by 3.2% every year. 58% of agricultural soils in Europe have residues of multiple pesticides, half of them are now illegal.
- The number of cars worldwide will nearly double by 2040. Highways are major, open and dynamic sources of contaminants such as metals, toxic organic pollutants and plastics that present a risk to adjacent agricultural soils and urban areas.
- Plants may absorb contaminants through their roots, producing unsafe food. 1 in 10 people in the world fall ill after eating contaminated food and 420 000 die every year.
- 7 tablespoons of lead can contaminate up to 1 ha of soil or 200 thousand litres of water.
- More than 70% of the soil pollutants are carcinogenic.

Combating soil pollution requires us to join forces, and turn determination into action. Be the solution to soil pollution.

Goutam Mukherjee

Dr. Goutam Mukherjee
Hony. Editor, JILTA

Read and Let Read :-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EFFECTIVE WASTE MANAGEMENT AND SUSTAINABLE DEVELOPMENT IN KOLKATA LEATHER CLUSTER(BANTALA)

2020 -2023

Madam Mamata Banejee, Honorable Chief Minister of West Bengal launched the leather project of Solidaridad and partners for Kolkata leather cluster in september 2020

Circular Economy

Effective solid waste management

Capacity building programme

EFFECTIVE WASTE MANAGEMENT AND SUSTAINABLE DEVELOPMENT
KOLKATA LEATHER CLUSTER

Trainings on Occupational Health and Safety

Robust public- private partnership

Efficient water consumption practices

PROJECT PARTNERS IN ASIA

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Solidaridad Regional Expertise Centre
158/5, Prince Anwar Shah Road, Kolkata-700045
Contact: 033-40602211, +91-8830279666

INTRODUCTION OF DE-SALTING MACHINE

Solidaridad is escalating all the possibilities of turning waste to wealth with the help of our enthusiastic team, stakeholders and partners. Already, we proved that there is a way to save precious fresh ground water up to 50% that is used in fleshing and also increase the self-life of the pump in the tannery as well as can be beneficial in saving electricity. But currently we are saving the unused ground water, however we have some big issues on open water sources. One of the major setbacks being faced by the Leather cluster is high TDS in the waste water of Tanneries and CETP discharge. To address this issue Solidaridad has indigenously designed a low-cost simple technology in the form of a **DE-SALTING MACHINE** to dust off the loose salt which is a contributor of high TDS in effluent.

Solidaridad Kolkata team has already installed and demonstrated the technology in MK Products, Vinit Gloves, Weblec Tannery, Elrich International, Crescent Tannery & Trident Leather. This simple low-cost technology has gained a good momentum and Solidaridad team is planning to demonstrate the process in numerous tanneries in coming days. The programme manager Mr. Pradipta Konar of Kolkata Solidaridad team along with the association of CLCTA has demonstrated the intervention to the Government bodies and regulatory authorities. The technology has been appreciated and Solidaridad is planning to install more De-salting machines in the Kolkata Leather Cluster.

Why SALT ?

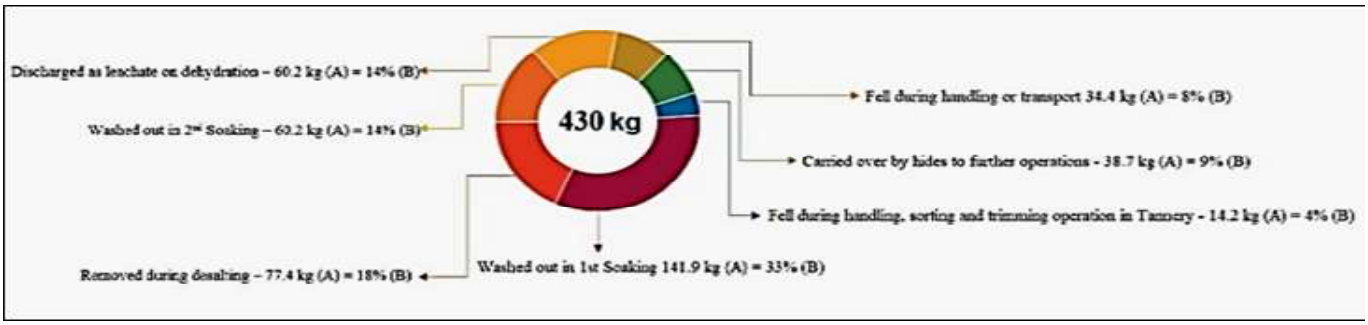
Common salt is traditionally used in India to preserve hides. This method is often called 'curing' or 'short-term preservation' as the raw hides/skins are only preserved until they reach the tannery. Common salt is generally applied within a few hours of flaying. This salt serves a dual purpose: it dehydrates raw hides and skins from original moisture level of 80-85% to 50-60% and it prevents microorganisms from decaying the skin/hide material. In this way, the raw material is preserved from putrefaction. About 430 kg of salt is applied per ton of raw hides/skins. While most of the salt penetrates the skin, a substantial quantity remains on the surface. By desalting, it is possible to remove major portion of loose salt. The following graph provides a description, followed by the average quantity of salt in kg (A) and the corresponding percentage of total salt applied in curing (B).

The process of applying common salt to freshly flayed hides/skins is called dry or wet salting. The common salt used in the preservation process is dissolved in water in the first unit process, called soaking, and discharged as wastewater. Alternative curing methods have not been prevalent in India for reasons which include the dispersed nature of slaughtering throughout the country, combined with the easy availability of common salt and its low preservation costs. The common salt applied on hides for curing enters the soak liquor, which is the first unit process in tanneries. The presence of salt in tannery wastewater contributes to a substantial portion of the TDS.

What is "Desalting Machine"?

This machine is involved in removal of the excess salt in the raw hide. Usually, desalting job requires two to three water soaking process but this intervention will reduce the process to one soaking. The machine comprises of a gear motor, a rotating cylindrical sieve with nylon bristles and a wooden and stainless-steel structure.

The wet salted raw hide/skin is rolled into the machine and the salt on the flesh side is removed by the nylon bristles. The dusted salt drops down on the sloping wooden plank to the rear of the machine. The quantity of salt collected ranges approximately 7 to 8% on raw hide weight basis.



Why De-salting is important?

- Plenty amount of salt can be recovered before water treatment in Beam-house process.
- After desalting, minimum amount of salt participated in soaking, therefore we can easily omit 1-2 times of washing with fresh ground water which will save almost 400% of water (based on raw wt.) each process.
- We can significantly reduce the TDS of soak liquor.
- Soaking can be done within very short time as there is no hindrance due to extravagant salinity.

Impact of De-salting machine in Tanneries: -

We initiated a trial in a tannery to observe the change in TDS, taking place in undusted and dusted raw hide. We did a simultaneous process and found that the TDS contain in waste water is 32.35% lower in dusted hides in soak liquor. Here is some important information regarding the desalting trial below;

No. of Buff Calf Hide	:	356 pcs
Time taken	:	1hr 10 min
Labors involved	:	3
Salt Collected	:	140 kgs

Before de-salting Soak Liquor TDS

TEST FINDINGS:

Sl. No.	Test Parameter	Test Method	Unit	Results
1.	Total Dissolved Solids	APHA 23rd edition 2540C	mg/l	25840.0

After De-salting Soak Liquor TDS

TEST FINDINGS:

Sl. No.	Test Parameter	Test Method	Unit	Results
1.	Total Dissolved Solids	APHA 23rd edition 2540C	mg/l	17480.0

Environmental Benefits: -

- Decrease in TDS in the effluent will help the biological teatment plant to work more efficiently, due to less salinity.
- The washing time will be reduced significantly. Thus, the volume of effluent will be less in both cases for drum and paddle.
- For tanneries that choose to dilute the treated tannery effluent with treated sewage, there will be less dependent on the volume of treated sewage, as the TDS of effluent can be reduced by desalting.
- For tanneries opting for zero liquid discharge systems, the desalting of raw hides will increase the recovery rate in RO plants by about 5% of effluent feed along with increasing the life of the membranes in RO plants and decreasing the salt load sent to the evaporators. This will result in less salt at the end of the pipe treatment, hence easing the disposal or storage of salt-laden solid residues from the evaporators.
- We are exploring the possibilities of reusing these salts in Coconut Plantation Industry and also fetching ideas to use in pickling process of the tannery.
- As we are using less water, hence we will use pump for lesser time and as a result we can reduce the electric consumption which will decrease the carbon footprint.

TDS evaluation based on Test Report

Based on the above test result, we can easily evaluate the difference of TDS in percentage after intervening by De-salting machine;
Previous TDS = 25840 mg/L
After installing Desalting machine, current TDS = 17480 mg/L
Now, the difference of TDS after intervention is = (25840 – 17480) mg/L = 8,360 mg/L

In percentage,
the value will be = (8,360/25,840) ×100 = **32.35 %**

From the desk of General Secretary

WEBINAR ON "19TH SANJOY SEN MEMORIAL LECTURE"

Due to Pandemic COVID this year "Sanjoy Sen Memorial Lecture" was organized by our association through digital platform at 7.00 pm on 14th January' 2021.

The program resumed with the introductory speech delivered by Mr. Susanta Mallick, General Secretary, ILTA, followed by the Welcome Address delivered by Mr. Asit Baran Kanungo, Vice-President, ILTA.

Mr. Kanungo welcomed to all the dignitaries and participants from different sectors like members of ILTA and other associations, organizations, academic institutions, industry etc. In his speech Mr. Kanungo elaborated the eventful life of Late Sanjoy Sen and his role as President of ILTA during 3 decades.

Mr. Mallick then declared the name of the following students who secured the topper position in B.Tech, Leather Technology from different institutes and awarded with Sanjoy Sen Memorial Medal :-

a) **Ms. Kritika Vagmi** from Muzaffarpur Institute of Technology, Bihar in 2020.
b) **Ms. Tanvi Srivastava** from Harcourt Butler Technological Institute, Kanpur, U.P. in 2020.

Prof. (Dr.) Sanjoy Chakraborty, OIC, GCELT, then announced the name of **Mr. Rupendra Paul** who was to receive Sanjoy Sen Gold Medal for topping B.Tech Leather Technology as Composite Topper of 4 years in 2019 from GCELT.

Also Prof. Chakraborty declared the name of the following students who were to receive the Dr. Prafulla Kumar Basu Memorial Scholarship:-

a) Mr. Rajan Gayen
b) Ms. Niha Mishra
c) Ms. Shilpa Mondal
d) Mr. Suvajit Mishra

After concluding the award presentation session Mr. Mallick introduced the honorable speakers of the day, Dr. S. Rajamani, Chairman, Asian International Union of Environment Commission and called on him for delivering the prestigious Sanjoy Sen Memorial Lecture titled **"Recent Technical and Environmental Developments in World Leather Sector and Future Trend in midst of COVID-19"**.

Before starting his lecture Dr. Rajamani offered his homage to Late Sanjoy Sen. He recalled the beginning of his career and briefed that how he became an important part of International leather fraternity through his nomination by Late Mr. Sen as the Member of IUE Commission of IULTCS. He expressed his heartfelt thanks and gratitude to Mrs. Ratna Sen, wife of Late Sanjoy Sen for her kind support to him time to time. He also expressed his thankful congratulations to the JILTA team of ILTA for its upgradation and publication in time, even during the critical situation of COVID.

The programme came to end with offering Vote of Thanks by Mr. Mallick.

There were around 70 - 80 participants over Zoom platform and more than 100 viewers participated on the ILTA HR Face Book Live. Video recording of the entire program is available on the official YouTube channel of ILTA **(ILTA Online)** and the website of the Association – www.iltaonleather.org

YOUTUBE CHANNEL OF ILTA

An official **YouTube** Channel of our Association **(ILTA Online)** has been launched from 1st November' 2020. You may follow and view all the video recordings of different Seminar & Symposiums on this channel by opening it time to time.

You are requested to kindly do 'Like' the channel and 'Subscribe' it by pressing the Bell Icon beside it to get regular updates on priority basis.

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In case we do not receive any communication from you for a hard copy, we will continue sending e-copy of the same to your email id available with us. You may please verify your email id with our office at the earliest.

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Faculties, Research Scholars and students of various Leather Institutes may wish to publish their Research / Project papers in an Article form in this monthly technical journal, JILTA.

Interested author may sent their paper (in MS Word format) along with a PP Photograph and Contact details like Email, Mobile etc. to our email IDs : admin@iltaonleather.org / jiltaeditor@gmail.com

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b) Kindly mention your **Membership No.** (If any) against your each and every communication, so that we can locate you easily in our record.

(*Susanta Mallick*)

General Secretary and the Members of the Executive Committee are available to interact with members at 19.30 hrs, over Phone / Conference call on every Thursday

Impact of COVID-19 Pandemic Crisis on the Survival of West Bengal Leather Industry

Dr. Dibyendu Bikash Datta, Associate Professor,

Dept. of Fashion Management Studies, National Institute of Fashion Technology, Kolkata

Abstract

The World Health Organization (WHO) announced the Novel Coronavirus (2019-nCoV) / COVID-19 outbreak as a pandemic, and after a major increase in COVID-19 cases, several countries declared a full national lockdown. Such decisions have restricted the movement of people and resulted in a complete shutdown of many businesses across many sectors. The leather industry, as a significant growth driver of the economy with no exception, has also been completely shut down. All manufacturing activities got delayed. It is prudent to address the impact of the pandemic at the outset and end of the crisis to prepare for any future possibility and gain lessons for plans. This study aims to investigate the effect of COVID-19 on the leather industry's survival through exploratory interviews and questionnaire surveys. The study identified the most prominent impacts of COVID-19 as suspension of work, labour impact and job loss, time overrun, cost overrun, and financial implications. The findings shed light on the consequences of sudden occurrence of pandemic and raise awareness of the most critical impacts which cannot be overlooked. This study will help to realize the sequences of the sudden pandemic outbreak and prepare for the worst-case scenario.

Keywords : COVID-19, pandemics, leather industry, coronavirus, 2019-nCoV.

Introduction

On 31 December 2019, the World Health Organization (WHO) learned about a cluster of cases of pneumonia of unknown cause detected in Wuhan city, Hubei province of China.

On 9 January 2020, WHO reported that Chinese authorities had determined that the outbreak was caused by a Novel (new) Coronavirus (nCoV), temporarily named 2019-nCoV/COVID-19. Coronaviruses are a large family of viruses that cause illness ranging from the common cold to more severe diseases. The novel coronavirus is a new strain that has not been previously identified in humans. On 11 March 2020, WHO declared the coronavirus outbreak a global pandemic.

Common signs of infection include respiratory symptoms, fever, cough, shortness of breath and breathing difficulties. In more severe cases, the infection can cause pneumonia, severe acute respiratory syndrome, kidney failure and even death [1].

The COVID-19 pandemic has had by far-reaching very severe consequences since it has spread to all the countries. The economy, in general, faces a direct impact in the mid of COVID-19 outbreak. Many countries face recession and economic downturn. The outbreak has created dramatic changes in economic activities globally, including in India. All the business activities have been shut down unless it falls under the essential categories as necessary supplies and medical sectors, in addition to a few vital projects which are necessary to support the health system and safety of the people. Relatively, it has limited the business around the world and companies have shifted to Work-From-Home (WFH) concept remotely to accommodate and run the business and services [2].

The nationwide lockdown imposed by the Indian government since 24 March 2020 as a precautionary measure to contain the spread of the disease has created huge disruptions in economic activities, with every sector facing labour crises and supply chain issues. On the corporate front, the increased liquidity pressure is impacting their credit profiles [3]. Although the impact of the coronavirus pandemic on the Indian economy

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was limited initially, the extension of the lockdown following the sharp escalation in the number of positive coronavirus cases created significant uncertainty regarding the economic outlook and recovery. Hence, there is a need to closely monitor the unfolding domestic situation and impact on various sectors.

Leather products being non-essential commodities have been significantly impacted by COVID-19. The leather industry is far different from other industries which typically require involvement of the entire workers and employees. Hence, it is crucial to appreciate how the leather industry addresses this unforeseen situation.

Many issues have cropped-up regarding demand in export markets, labour shortages and business disruptions. During the pandemic, the situation drastically deteriorated by firstly shortage of material supply, which then impacted the leather industry. Following the spread of the virus, many countries started implementing several measures to reduce movement of people, and that has mainly obstructed the production activities as it requires factory setup and every workers and employee must be available to work, check, and monitor all the work activities [4].

Job loses is also a major disaster during the escalating situation of the pandemic. Globally, millions of employees have lost their jobs amid the COVID-19 crisis. In the leather industry sector, many employees lost their jobs and most of the small enterprises are not able to pay salaries during lockdowns. Literature in the subject of the pandemic is still scarce, especially in the leather industry sector. Hence, it is crucial to investigate the impact of the epidemic in the leather industry. This article aims to identify the impact and assess them based on their level of severity.

The short-term impact of the COVID-19 crisis has been reflected in a sharp drop in leather product sales, as more and more shops are forced to close due to government restrictions, and as consumers are instructed to stay at home. In the European Union, the market is forecast to face a potential 50 per cent drop in sales for 2020 [5]. Major brands have been forced to close stores in several countries and have subsequently already faced substantial drops in sales worldwide, a situation which is expected to continue to worsen over coming weeks.

Global stock markets have reacted strongly to the crisis in the face of a potential global recession. Almost all major brands have suffered dwindling stock prices over the past month. The extent to which online retail can compensate in terms of overall sales during the period of store closures is yet to be seen. Retailers have employed tactics such as free shipping and heavily discounted products to encourage consumers to shop online. Nevertheless, while online shopping remains a viable option, rising unemployment, falling incomes and growing uncertainty mean that purchasing leather products may no longer be a priority for many consumers [6].

At the peak of the outbreak in China, shortages of raw materials and inputs were the primary concern for leather and footwear producers, disrupting manufacturing across the world, and particularly in leather products producing countries. As the epicentre of the pandemic has shifted, first to Europe, then to the US and the rest of the world, and the economic impact has escalated, factories in many countries have been forced to close. While leather factories are slowly resuming operations, companies are facing challenges to ramping up production, such as higher costs and continuing shortfalls of raw materials. The leather industry has reported a series of order cancellations, even for products already in production or completed, which has caused the majority of affected factories to shut down operations [7].

India's leather industry is staring at an export loss of $1.5 billion due to the pandemic that has gripped the global markets. Most leather clusters in the country are closed barring the leather complexes in Kolkata and Unnao in Uttar Pradesh, which has just received permission to reopen. At Calcutta Leather Complex (CLC) in Bantala, exporters were not initially getting rawhides as trucks were not coming in. Now that has eased a bit and rawhides are coming. Clients from the US, Germany and Italy are now sending business enquiries but want to negotiate on a lesser price. But many exporters are not able to commit to the orders due to the freeze on industrial activities. The migrant workers have left and so, getting labourers is a real challenge. Since the units are closed, the condition of the rawhides that are lying at the units is unknown. India exports leather products worth $5.5 -$6 billion annually. Leather exporters said countries like the US, Germany and Italy have started sending enquiries and are negotiating for a lower price. Importers from the US, UK, France, Italy, Spain and Germany either cancelled orders or put them on hold. Even, some of them are delaying payments. The deficit is around $1.5 billion and is going to

be difficult to recover. All across the supply chain, these impacts have been felt [8].

While the supply of inputs from China is improving, the decrease in demand from major economies has emerged as the major limiting factor for trade. Many countries have forecasted a full-year of export decline or have announced that its shipments will face delays. The medium-term impact of the pandemic will remain to be seen as major importing countries in key markets across the world emerge from the worst of the crisis. In the longer-term, however, the pandemic could affect the leather and footwear supply chains and trade, and accelerate the reshoring or nearshoring of production. Employment and working conditions, falling production and sales have had a significant knock-on effect on workers, both in terms of employment and working conditions. An estimated 200 factories in Cambodia have either suspended or reduced production and at least 5,000 workers have lost their jobs. In Myanmar, a lack of raw materials from China has led to the closure of at least 20 factories and the loss of 10,000 jobs. At the same time, the number of orders has plummeted. In Viet Nam, an estimated 440,000 to 880,000 workers faced reduced hours or unemployment. In Bangladesh, as many as 2.17 million workers have been affected by the crisis, with many facing unemployment as orders are cancelled and production declines steeply. It is estimated that less than 20 per cent of firms can continue paying staff wages for more than 30 days under these circumstances, and over a million workers have already been dismissed or furloughed [9].

The raging 2019-nCoV in China has dealt a body blow to the leather goods industry of Eastern India as it stares at a Rs 300 crore loss. This has impacted the supply chain of the import of raw materials. The raw materials are chiefly imported from Guangzhou and Dongzhou provinces of Mainland China, besides some items from Hong Kong.

The annual export of leather goods from the eastern region is about Rs 3,400 crores. Every month these leather units import raw materials of about Rs 200 crores to Rs 250 crores. Eastern India contributes about 55 per cent of India's total Rs 5000 crore leather goods export per annum. Locks, dog hooks, clips, zippers, PU (polyurethane) artificial leather made of thermoplastic polymer, lining material of leather goods, mesh, nylon webbing, chemicals, fitting for bags, RFID fabric essentials to make bags and wallets to protect credit/debit cards from screening from outside and many other essential items are imported from China. In the leather footwear section, the supply of raw material components like laces, shoe lining, buckles, ornaments, insoles, outsoles, foam, cellulose board, shank board etc. have been affected. Countries like Bangladesh and Cambodia have become our biggest competitors and we are looking at countries like Vietnam and South Korea in Asia and Spain and Italy in Europe as alternatives to raw material import. But the cost factor is huge in these countries compared to China.

Between five to ten lakh people are engaged directly/ indirectly in the leather industry, located mainly in Kasba, Topsia, Tangra and Bantala in Kolkata and working in the 250 small, medium and large scale units. The current situation has cast a shadow on their jobs as production has come to a halt since February in many units.

The indigenous infrastructure for raw materials manufacturing is needed in India for which the country needs investment for research in technological know-how as the leather industry has regularly been affected by the outbreaks of diseases like SARS, bird flu, 2019-nCoV among others.

Kolkata is the main manufacturer of leather tote bags, bag pack, leather bags and wallets. The world's largest leather glove manufacturing unit, Indian safety products, is located in Kolkata. The leather goods manufacturer has export orders for summer and Easter holidays from countries like the UK, France, Germany, Italy, Portugal, USA, Canada and also from West Asia. The delay in raw material shipments may affect the export order deadlines [10].

Literature review

The world of work is facing a global health crisis unlike any in the 100-year history of the International Labour Organization (ILO) – one that is spreading human suffering, damaging the global economy and disrupting people's lives. As efforts to mitigate the public health emergency intensify, the novel coronavirus disease has had an immense impact on all social and economic sectors, including the leather and footwear industries. Quarantine measures, closure of retail stores, illness, and salary reductions have suppressed consumer demand [11]. At the same time, this highly globalized sector is also struggling with severe supply-side disruption; as workers are told to stay at home, supply chains grind to a halt and factories close. In

addition to the health risks posed by the virus, the economic impact on the industries has affected the business and livelihoods of employers and workers alike. Factory and retail closures around the world have threatened the viability of enterprises and led to workers being suspended or losing their jobs altogether. Small and medium-sized enterprises, a vital source of employment and growth in the industry, are likely to suffer the greatest impact of this global crisis.

The coronavirus spread, on the one hand, has severely affected the human lives while on the other; it has created the massive jolt for world economic markets. Every country is facing a hard time to deal with the backlash of crisis which has halted all the economic activities. Businesses are looking for this situation to be over as soon as possible but till then there are severe implications. The closure of businesses has affected the workers especially the daily wage earners. Millions of jobs will be at stake if the crisis prolongs [12].

The unprecedented contraction in investment and manufacturing output in two successive quarters dragged down India's economic process to a 27-quarter low of 4.7 per cent within the quarter ended December 2019. Looking ahead, GDP growth is about to stagnate at 4.7 per cent within the March quarter (Q4) too, consistent with the annual estimate of 5 per cent by the National Statistical Office. The trade impact of the coronavirus epidemic for India is estimated to be about $ 348 million (2500 crore) and therefore the country figures among the highest 15 economies most affected as the slowdown of producing in China disrupts world trade, consistent with a UN report. For India, the trade impact is estimated to be the foremost for the chemicals sector at $ 129 million (925 crores), textiles and apparel at $ 64 million (460 crores), automotive sector at $ 34 million (245 crores), electrical machinery at $ 12 million (85 crores), leather products at $ 13 million, metals and metal products at $ 27 million and wood products and furniture at $ 15 million [13].

Methodology

To examine the objectives of this study, relevant data were collected from both secondary and primary data. The secondary data consists of information collected from journals, magazines, newspapers, books and websites. Due to the restriction of movement in the mid of pandemic outbreak, primary data were collected through online interviews and structured questionnaires to assess the level of impact using a Five Point Likert Scale. A total of 54 respondents associated with the leather industry from the city of Kolkata participated in the questionnaire survey. The questionnaire was designed in a methodical way of covering adequate information in all facets of the study. The data collected were then statistically analyzed to rank the factor by the average importance index. All the respondents have more than 5 years of experience in the leather sector.

Descriptive analysis

This part introduces the analysis of the data collected through a questionnaire survey. Descriptive analysis was used to evaluate the degree of impact by calculating the average index.

Identified impacts	The frequency level of impact					Average index
	Not impacted	Slightly impacted	Neutral	Very impacted	Extremely impacted	
	(1)	(2)	(3)	(4)	(5)	
1. Suspension of production activities	1	1	5	15	32	4.407
2. Labour impact and job losing	3	2	1	17	31	4.315
3. Time overrun	1	3	4	18	28	4.278
4. Cost overrun	3	1	5	23	22	4.111
5. Financial impact	3	1	3	34	13	3.981
6. Supply shortage	4	5	4	21	20	3.889
7. Interruption of planning and scheduling	3	5	12	28	6	3.537
8. Restriction of movement on work and travel bans	6	7	13	12	16	3.463
9. Materials shortage and sudden fluctuation of price	11	3	6	23	11	3.37
10. Interruption of contractual terms by suppliers	5	7	14	20	8	3.352
11. Socioeconomics impact	6	12	9	14	13	3.296
12. Impact on the existing accomplished activities	14	5	3	19	13	3.222
13. Uncertainty of survival	9	8	18	8	11	3.074
14. Impact on research and technology	9	20	20	4	1	2.407

Table 1: Assessment of the impacts of pandemic on the leather industry

Table 1 shows the findings and demonstrates the assessment of the impacts based on the level of effect using the Five Point Likert's Scale. The frequency of the impacts was counted and the average index was calculated. The average index shows the degree of the impact according to the number of scales. It is illustrated that suspension of production activities is the most effected factor of pandemic occurrence with an average index of 4.407 which is justified due to the restriction of movement and shortage of supply. The second most affected part is labour impact and job losing (workforce shortage) which is duly to the suspension of production activities and the fear of gathering

due to the spike spread of the contagious virus among workers. The decision comes to an end to avoid assemblies and upkeep social distancing. It is therefore impacted the workers in terms of finance and safety. The third impact is time overrun which is associated with the movement and measure control period. The longer the time required to fight the pandemic will undoubtedly require more time for the production as per orders to complete. The fourth is the financial impact which is caused by the economic deterioration of the state and also due to the suspension of the production. Suppliers' needs to pay their tariffs and materials may also deteriorate and that is associated with additional cost. Besides, the employers are obliged to pay salaries in which the work is not progressing. The findings raise the awareness to prepare the leather industry to cope with any sudden pandemic.

Post coronavirus lockdown scenario

The state government has allowed tanneries and manufacturing units at CLC to resume work, provided all guidelines are followed. The complex has about 400 tanneries and 60 leather goods manufacturing units. Few manufacturing units, who have opened shop are not expecting fresh orders immediately but want to ensure they do not lose clients for the next season. Several manufacturers who are also exporters with units in the Kasba industrial estate have started production. Around 40,000 migrant workers are engaged in tannery activity in the city, according to the West Bengal Tannery Mazdoor Union, which is the sole trade union in the state's leather sector.

With a large majority of the migrant workers have returned from their native places, work has gathered momentum over the past two months at the CLC which, when considered with the work-in-progress, is fast emerging as Asia's largest leather hub.

Inputs from a cross-section of sources, which included tannery owners, finished goods units and a trade union leader, clearly suggest that although the state government had allowed resumption of work at CLC towards end-April yet momentum was missing for several weeks as thousands of migrant workers took time to return from their native places in Bihar, Uttar Pradesh, Jharkhand and Madhya Pradesh. The situation started improving in the tanneries May-end onwards and over the last seven-eight weeks unit owners have been able to process the raw hides that had been lying unprocessed during the lockdown owing to the COVID-19 pandemic.

In the finished goods units, where a majority of those engaged are from West Bengal, owners had accorded priority on servicing incomplete orders and sending out samples for fresh orders. The expectation in CLC as of now is that before long, the remaining 5-7% of the migrant labour would be back to facilitate higher levels of tannery activity. But, for fresh orders for finished goods, the wait would be longer. What is significant is that when owners of finished goods units talk of orders, they invariably mean export orders as for all practical purposes these are export-oriented units. The major export segments are footwear, leather goods and accessories (including bags, wallets, gloves), saddler and harness, finished leather and leather garments.

The manufacturing units have deployed a severely curtailed workforce to finish pending orders and ready samples for the next season. The tanneries are busy processing rawhides that had been lying unprocessed for over a month and could get damaged.

Tanneries are focusing on saving rawhides. Huge quantities of rawhide had been lying unprocessed since the start of the lockdown. The rawhide cannot be left unprocessed for long. If such a huge amount of raw materials go waste, the industry, which is already badly hit, would see several units shutting down. Majority of them face difficulty to open because of less capital to buy chemicals, with no orders and scarce labour. Import of fitting equipment from China, which had stopped at the start of the year, has now resumed but air freight charges have gone up three-fold from INR 150 to 170 to as high as INR 600 per kilogram because of the shortage of cargo flights.

Results and discussion

After analyzing the interview transcription, a few points are extracted from the transcription, which includes the following :

- The pandemic has entirely suspended the leather industry and only some limited productions are running which are in work in process and has raw material procured in advance. The work under this situation lay based on difficulties in terms of the requirement for accelerated completion of the production and the restriction of movement. Additionally, workers and technical staffs are aware of the infectious disease and need to work with full consciousness and scrutiny.

- Prepared a complete list of tasks, maintain constant communication with all vendors, subcontractors, establish daily video meetings, manage all the orders, constantly reviewing production activities, coordinate with all the stakeholders for updates, and maintain proper communication.

- Modify the contingency time to accommodate all the needs to deal with the crisis.

- Planning and scheduling are significantly impacted by the crisis. Backup plans were scheduled during the crisis period.

- There are many impacts of the sudden shut down of production activities. The impact is listed in Table 1 and analyzed using statistical approaches.

Conclusion

This article has investigated and assessed the consequences of pandemic COVID-19 on the West Bengal leather industry. The analysis identifies that the most impacting factors are the suspension of production activities, labour impact and job loss, time overrun, cost overrun, and financial impact. From the interviews, it was highlighted that the economic impact is significant to all stakeholders and the workforce. The workers work hard to mitigate the impact by reducing the number of workers and employees encouraging work from home wherever applicable to avoid and slow the spread of the contagious virus. While, production activities that are still running are susceptible to many challenges such as shortage of workers, the rise of materials price, and shortage of materials and supply chains. The unforeseen impacts are indisputably perilous to maintain the stream of the production progress. The findings of this article are introductory to the leather industry stakeholders and policymakers to understand the impact of the unforeseen and uncontrolled pandemic on the leather industry. This will help to improve the plans to cope with any encountered circumstances.

References

[1]. World Health Organization. (2020). Pneumonia of unknown cause–China. 2020. Available at: https:// who. int/csr/don/pneumonia-of-unknown-cause-china/ .Accessed October, 31.

[2]. Dubey, A. D., & Tripathi, S. (2020). Analysing the sentiments towards work-from-home experience during COVID-19 pandemic. Journal of Innovation Management, 8(1).

[3]. Rakshit, B., & Basistha, D. (2020). Can India stay immune enough to combat COVID 19 pandemic? An economic query. Journal of Public Affairs.

[4]. Dev, S. M., & Sengupta, R. (2020). COVID-19: Impact on the Indian economy. Indira Gandhi Institute of Development Research, Mumbai April.

[5]. Barrero, J. M., Bloom, N., & Davis, S. J. (2020). COVID-19 is also a reallocation shock (No. w27137). National Bureau of Economic Research.

[6]. Zhang, D., Hu, M., & Ji, Q. (2020). Financial markets under the global pandemic of COVID-19. Finance Research Letters, 101528.

[7]. Sen, S., Antara, N., Sen, S., & Chowdhury, S. (2020). The unprecedented pandemic 'COVID-19' effect on the Bangladesh apparel workers by shivering the apparel supply chain. Available at SSRN 3598542.

[8]. Ghosal, S. (2020). India's leather industry stares at an export loss of $1.5 billion. Available at: https:// economictimes.indiatimes.com/news/economy/foreign-trade/indias-leather-industry. Accessed October, 31.

[9]. World Bank. (2020). Taking stock, July 2020: what will be the new normal for Vietnam? The economic impact of COVID-19.

[10]. United News of India Service. (2020). nCov in China affecting leather goods industry of Eastern India. Retrieved 31 October 2020, from http://www.uniindia.com/ncov-in-china-affecting-leather-goods-industry-of-eastern-india/ east/news/1889271.html

[11]. Mishra, M. K. (2020). The world after COVID-19 and its impact on global economy.

[12]. Javed, A. (2020). Economic impact of coronavirus and revival measures: way forward for Pakistan.

[13]. Dhokare, A. G. C. S. (2020). Coronavirus: the impact of COVID-19 on India economy.

INDIAN LEATHER PRODUCTS ASSOCIATION

The Indian Leather Products Association (ILPA), established in 1987, is a premiere representative body of manufacturer-exporters of superior quality leather and leather products with head office in Kolkata and a regional office in Chennai.

IMPORTANT ACTIVITIES OF ILPA :

- Brings together manufacturer & merchant exporters on a common platform.
- Stimulates growth & development of the industry as a whole.
- Promotes export of leather & leather products.
- Develops & maintains symbiotic liaison with international trade bodies & Chambers of Commerce.
- Organises trade delegations to international fairs & seminars.
- Organises various Seminars/workshops both the benefit of its members and industry.
- Promotes International Fairs and RBSMs like IILF Kolkata, ILPA Buyer Seller Summit.
- Organises the ILPA SHOW : Leather on the Ramp , one of the most prestigious and sought after Fashion event in Eastern India.
- Closely involved in setting up the Calcutta Leather Complex(CLC).
- Runs and manages the Freya Design Studio : a CLE award winning Design Studio both for leather goods and footwear.
- Runs and manages the ILPA INFRASTRUCTURE DEVELOPMENT FOUNDATION (IIDF) – a state of the art Common Facility Centre.
- Imparts Skill Development Training through ILPA Technical School.

Common Facility Center

Design Studio

CAD CAM Center

ILPA Technical School

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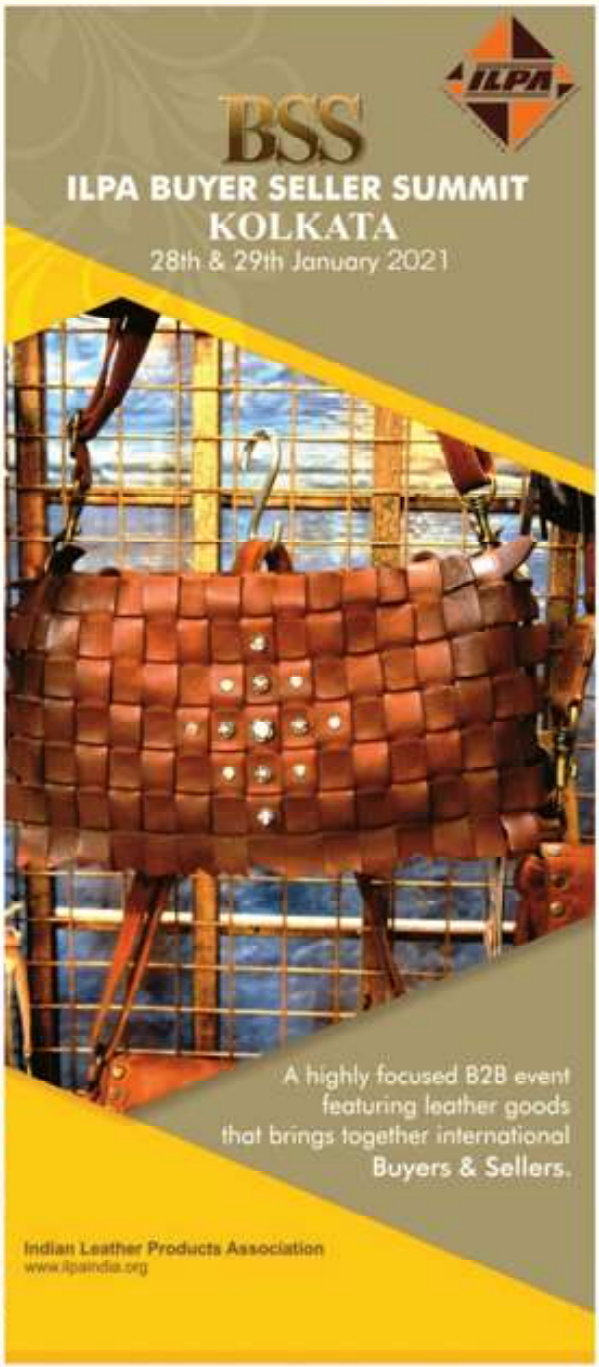
Ladies Hand Bags, & Purses, Men's Bag & Wallets, Belts, Hand Gloves (Fashion & Industrial), Garments, Luggage & Hold alls, Portfolio, laptop bags, IPod Covers, small leather goods & Accessories



BSS Indian Leather Products Association
BUYER SELLER SUMMIT 2021. KOLKATA

Do You Wish to See the Connectivity Between Quantum Mechanical Laws ?

Dr. Buddhadeb Chattopadhyay

Former Principal of Govt. College of Engineering & Leather Technology, Kolkata & former Principal, MCKV Institute of Engineering, Liluah, Howrah, W. B.

It was Einstein, who thought of unified theory of all Physical Laws. We shall not go that far. We shall now see another MAGIC to wonder about the connectivity between various elementary Quantum Mechanical Laws, though they appear at the first sight disjointed. This is another exercise of out-of-box treatment.

Now, going back to Einstein, we know his famous & simplest equation $E = mc^2$..... (1)
[Where c = velocity of light in vacuum, which is a constant and m is the mass of the particle.]

We may rewrite as $E = mc.c = p.c$ ..... (2) [where p is the momentum = mc]

Now, we also know that $E = h.\ c/\lambda$ ..... (3) [λ is the wavelength of the particle, h = Planck's constant]

Now combining (2) and (3) we get $h.c/\lambda = E = p.c$ or, $p\lambda = h$..... (4)

This is the famous De Broglie's equation, which says that higher the momentum is; lower will be the wavelength associate and also p is the property of the particle, while λ s the property of the wave. Hence, the matter is as much wave, as it is a particle. This is called wave particle duality.

Now, if, we consider this, the concept of the atomic structure needs to be modified. The Bohr's first orbit for 1s electron considered electron as a pure particle. Now, since it is wave also, naturally circumference of the first orbit must be principal integer of complete wavelength. Otherwise there would be disappearance of electron because of interference.

Therefore $2.\Pi.r = n.\lambda$ [where n = 1, 2, 3, 4, ...] ..... (5)

Recalling equation (4) we may write also $\lambda = h/p$ ..... (6),
[Since h is constant, $\lambda \propto 1/p$]

By inserting this value of λ in equation (5), we get: $2.\Pi.r = n.h/p$ ..... (7)

By rearranging, we also get : $nh/2\Pi = p.r = mvr$ ..... (8).
This is the famous Bohr's second postulate.

Now, it is logical that both the p and r are the measurable quantity. Hence, its error of measurement can be maximum in the same order of the measured value.

Now, let us consider the error of measurement of p is Δp and that of $r = \Delta r$

By inserting these errors in equation (8) we get: $\Delta p.\ \Delta r \geq h/2\Pi$ ..... (9).

This is the famous Heisenberg's Uncertainty principle. This tells us that it is the property of nature, that we can never precisely determine the values of momentum and position of quantum particle simultaneously. If, one is accurate, the other would be erroneous. This is not the limitation of the measuring instrument; this is the Law of Nature. Heisenberg boldly put forward that the determinism, which was the carnal of classical mechanics so far must be replaced by adequate accommodation of uncertainty and this can be best addressed by introduction of probability.

VIRTUAL FOOTWEAR & LEATHER EXPO' 21 [VFLE' 2021]

Federation of Indian Chambers of Commerce & Industry (FICCI) in collaboration with Footwear Design & Development Institute (FDDI) is going to organize a Virtual Exhibition on Footwear and Leather titled **"Virtual Footwear & Leather Expo' 2021 (VFLE-21)** from **15th** to **21st March'2021**.

The renowned chamber has informed Indian Leather Technologists 'Association (ILTA) on 3rd February'2021 through an email that as FICCI is committed to support and help the Indian Business Houses, Manufacturers, Traders etc., so that they can generate business and the exports may gain momentum, the FICCI Team has been working towards this goal. And as a part of their such activities they are pleased to announce the country's aforesaid largest Virtual Exhibition on Leather Products.

This "**Virtual Footwear & Leather Expo 2021"** will be organized from **15th – 21st March' 2021, 12 pm – 9 pm everyday .**

This world class web-based platform ensures the participants would get to display all their products virtually as well as speak to their customers as part of the conference sessions and through one-to-one audio/video calls.

Participants would also get the functionality to disseminate white papers, case studies, PPTs, brochures and any other informative material that they would normally share with their customers. So, sitting from the comfort of a participant's office or even home, they can get to reach out to their target audience seamlessly through their mobile / PC device. The entire ecosystem of Footwear, Leather & Allied sector would come under one roof to showcase their products and services and buyers from across the globe would participate in the event.

At a glance the Focus Sectors of the exhibition are:

- ❖ Footwear (Leather/Non-Leather)
- ❖ Footwear Machinery & Equipment
- ❖ Accessories, Chemicals, Components
- ❖ Finished Leather

The **Booth Charges** has been fixed up at **INR 25,000 + Taxes** and enclosed Brochure would help the participants about booth specifications.

FICCI has requested **Indian Leather Technologists Association (ILTA)** for its support and participation of its members at the forum of this **Virtual Footwear & Leather Expo'2021**. FICCI would put "**Indian Leather Technologists Association (ILTA)**" as the supporting association on their show website, on the exhibition platform and their emailers.

They would solicit the association of ILTA in respect of the following matters:

- ➢ Dissemination of event information through ILTA's in-house publication/newsletter/website amongst the members.
- ➢ Group Participation of ILTA's member companies in the Exhibition.
- ➢ FICCI would promote the participating companies on all social media platforms (Twitter, LinkedIn, Facebook). Also, Logo of participating companies on all emailers sent to entire database.
- ➢ FICCI would fix up B2B meetings with desired companies, Govt. officials or Protocol clients and Foreign Buyers.

For More details you may visit the site of the Exhibition**: http://www.vfle.in**

Acknowledgement :

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FICCI

INTRODUCTION

The Leather Industry holds a prominent place in the Indian economy. This sector is known for its consistency in high export earnings and it is among the top ten foreign exchange earners for the country. The export of footwear, leather and leather products from India reached a value of US$ 5.74 billion during 2017-18.

The leather industry is bestowed with an affluence of raw materials as India is endowed with 20% of world cattle & buffalo and 11% of world goat & sheep population. Added to this are the strengths of skilled manpower, innovative technology, increasing industry compliance to international environmental standards, and the dedicated support of the allied industries.

The leather industry is an employment intensive sector, providing job to about 4.42 million people, mostly from the weaker sections of the society. Women employment is predominant in leather products sector with about 30% share.

India is the second largest producer of footwear and leather garments in the world.

India is the second largest exporter of leather garments and third largest exporter of Saddlery & Harness in the world.

TANNING SECTOR

Annual production about 3 billion sq.ft. Accounts for 10% of world leather requirement. Indian colors continuously being selected at the MODEUROPE Congress.

FOOTWEAR SECTOR

Second largest footwear producer after China. Annual Production 2257 million pairs. Huge domestic retail market; 2021 million pairs are sold in domestic market. Footwear (leather and non-leather) export accounts for about 43.5% share in India's total leather & leather products export. The Footwear products mix; Gents 58%, Ladies 30%, Children 9% and others 3%.

LEATHER GARMENT SECTOR

Second largest producer and second largest global exporter. Accounts for 9% share of India's total export from leather sector.

LEATHER GOODS AND ACCESSORIES SECTOR INCLUDING SADDLERY & HARNESS

Fifth largest global exporter. Accounts for about 24% share of India's total export.

STRENGTHS OF INDIAN LEATHER SECTOR

- Own raw material source – About 3 billion sq ft of leather produced annually
- Some varieties of goat / calf / sheep skins command premium position
- Strong and eco-sustainable tanning base
- Modernized manufacturing units
- Trained / skilled manpower at competitive wage levels
- Worldclass institutional support for Design & Product Development, HRD and R & D.
- Presence of support industries like leather chemicals and finishing auxiliaries
- Presence in major markets – Long Europe experience
- Strategic location in the Asian landmass

EMERGING STRENGTHS

- Design development initiatives by institutions and individuals
- Continuous modernization and technology up-gradation
- Economic size of manufacturing units
- Constant human resource development programme to enhance productivity
- Increasing use of quality components
- Shorter prototype development time
- Delivery compliance
- Growing domestic market for footwear and leather articles

ABOUT THE EXPO

The Virtual Footwear and Leather Expo 2020 will be the 1st Virtual Expo in India on Footwear and Leather sector. The Expo will have on virtual display the entire range of products relating to Footwear and leather Industry including their ancillaries.

KEY COMPONENTS

- Exhibition (Pavilions and Showrooms)
- B2B (International, Domestic, and Institutional)
- Webinars & Digital Sessions on each Showcased Sector
- Instant Interaction platforms Live Chats, Chat bots
- Global Footprint (International Buyers)

WHY VIRTUAL EXHIBITION

A highly extensible Exhibition platform that will help you in fast-track the growth of the Sector

SCALE

- No limitation on number of attendees
- Hosted in the cloud for virtually unlimited scale and accessibility
- Live events with no limitations on concurrent attendees.

SAFE & SECURE

- In COVID19 scenario where safety is an utmost priority, Virtual Exhibition is an ideal business networking platform.
- Password protected access to Attendees.
- End to End Data encryptions for Data Security.
- Visitor access only through registration and approval from Organisers.

EXHIBITOR PROFILE

- FOOTWEAR (Leather / Non – Leather)
- Footwear Machinery & Equipment
- Accessories, Chemicals, Components (Allied Sector)
- Finished Leather

VISITOR PROFILE

- Leather & Footwear wholesale dealers and distributors
- Leather & Footwear traders
- Leather & Footwear material and components manufacturers & dealers
- Leather & Footwear machinery and mould manufacturers/ importers
- Importer & exporters of footwear.
- Footwear designing and training institutions/ associations consumers.

USER ACCESSIBILITY

- Reach and Interact with Exhibitor / Delegates / Buyers/ attendees on any device, any platform at the comfort of your
- Cross-browser viewing: IE, Chrome, Firefox, Safari.

AFFORDABILITY

- Virtual access will mitigate the travelling expenses of Attendees
- Nominal rental charges for Standard virtual Exhibition Booths.
- No printing / Mounting / fabrication cost for Exhibitors.

PARTICIPATION CHARGES

Exhibitor Type	Participation Charges per Booth
Indian Exhibitor	INR 25,000 +GST 18%
International Exhibitor	USD 500 +GST 18%

SUPPORTING ASSOCIATIONS

Please find below the link of Exhibitor registration form:
https://forms.gle/5rugNs41J77wTJS7A

Link of Visitor Registration form:
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PLEASE CONTACT FOR PARTICIPATION

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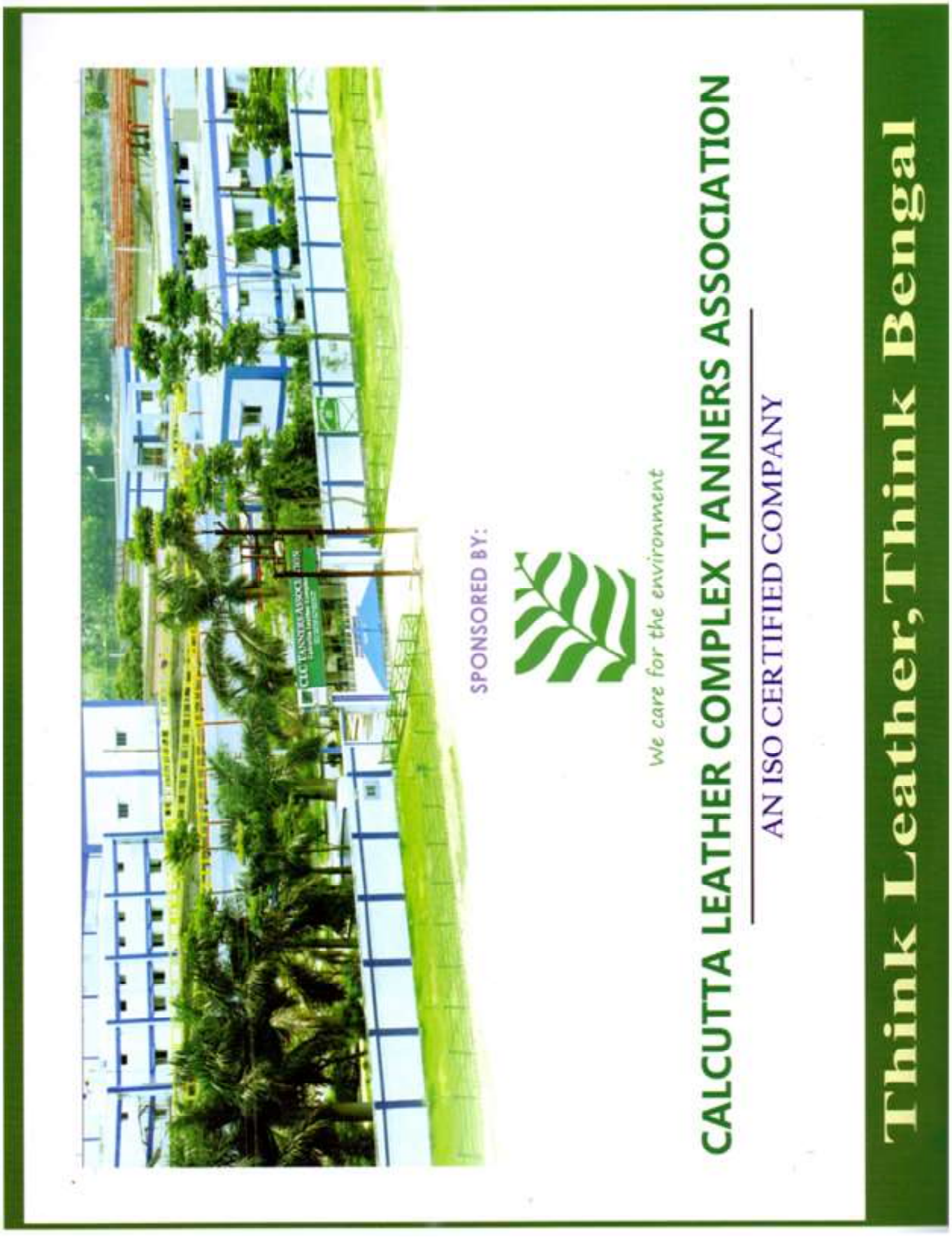
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LEATHER BAGS AND SHOE PRICES MAY RISE

Prices of premium and branded leather shoes and bags may go up by up to 5% next fiscal after finance minister Nirmala Sitharaman imposed import duty on raw and finished leather by 10%. This will also impact exports, said companies.

"Prices will definitely increase by a minimum of 5% in wholesale and in retail by on average 3%. The move will also make domestic manufacturers uncompetitive in the global market where we have strongly positioned ourselves," said Dilip Kapur, founder and president of Hidesign the Pondicherry-based premium leather goods maker.

Kapur said that the industry has been asking the government to allow duty free imports of raw materials and to tax import of finished products. "This will encourage the manufacturer of labour-intensive finished goods as it will make Made in India goods competitive, both in the domestic market and for exports," he said.

The basic customs duty of 10 per cent has been put on wet blue chrome tanned leather, crust leather, finished leather of all kinds, including splits and sides from nil duty. The exact quantum of price increase will have to be calculated as it will have to be seen if the markets can absorb it, said industry executives.

UK based shoe manufacturers and retailer Clarks's India executive director and CEO, N Mohan said this new duty might lead to an increase in costs especially for high end brands that import semi-finished and finished leathers.

"However, it will also put pressure on improving productivity and other efficiencies. While we do welcome the intention of being self-reliant, we have to work together with manufacturers to make sure the overall efficiencies go up and this cost gets mitigated, " he said. India was dependent on imported leather from South America, New Zealand, Brazil, and Africa which was known for its quality and finish.

"European and US buyers have over the years been guiding us on purchase of leather. The demand for these hi-end shoes, handbags and garments in the domestic market has also started picking up .

With leather accounting to 50% of the raw material in shoes and bags the prices will go up by over 5%," said Kanpur based Mukhtarul Amin chairman and group MD of Superhouse Group who sells in the domestic market under the Allen Cooper brand and also manufacturers leather products for German luxury fashion house Hugo Boss and America's Michael Kors.

India annually exports leather products worth $5 billion and imports raw and finished leather worth $ 0.5 billion. Footwear export accounts for 51.77% share during April 2019 to March 2020 worth $2.6 billion.Indian raw material resources are inadequate and hence the import duty will hamper exports of finished products from India said, Sanjay Leekha, vice chairman of the Council for Leather Exports said. He added that finished product prices will also increase marginally.

India is the second largest exporter of leather garments and fifth largest exporter of leather goods and accessories in the world. Companies may start looking at other categories of non-leather footwear manufacturing for exports, said Mohan. "The world is looking at India as we specialise in leather footwear. We need to look at ways and means of being competitive," he said.

The industry is also requesting the government to announce production/ employment linked incentives for footwear and leather products, as it is one of the top employment sectors of the world. According to Invest India, the Leather industry has the tendency to generate 250 jobs for every $0.2 million investment.

"We may soon have Chinese products flooding the Indian market since finished leather products attract only 15% import duty," said Kapur.

(Economic Times – 02/02/2021)

LEATHER GYM GLOVES THAT ARE DURABLE & AFFORDABLE

Enjoy working out with an added support with the help of durable leather gym gloves. Have a look at this list and buy a pair that you find apt for your fitness needs.

Whether you are a beginner or a professional fitness enthusiast, it is never a bad idea to use gym gloves to get additional support when you are working out. When it comes to workout gloves or gym gloves, plenty of choices are available in the market depending on the material, the style, the fitting and more to let everyone find the ideal choice easily. Leather gym gloves are quite popular in India because of their durability. If you want to buy leather gym gloves online, there are plenty of options available for you. To help you make a good purchase, we have a list of some of the most popular options that are worth your money.

Kobo Leather Fitness Gloves

When it comes to fitness gear and accessories, Kobo has been a trusted brand in India. These leather gloves by the brand are padded well to ensure comfort when you are exercising or holding weights for long. The soft material on the back of these gloves ensures good ventilation and does not let your palms feel sweaty when you are working out for long. These gloves are available in 4 sizes and the loops near the finger area ensure proper grip when you are training.

XTRIM X Macho Men's Leather Gym Workout Gloves

When it comes to leather gym gloves, here is another popular choice that you can buy online. With hook and loop closure, you can ensure that the gloves fit your wrist well before you start working out. The palms in these gloves have foam padding to let you be comfortable. Since these gloves can easily be washed, you can ensure proper hygiene levels at all times.

Nivia Pro Wrap Gym Gloves

Here is another popular option in gym gloves by Nivia that you can consider buying online. These gloves are made from high-quality leather to ensure durability and comfort when you are exercising. Since there is no elastic and the gloves can be tightened with the help of a long loop near the wrist, you can

easily use these affordable gloves for long. The internal layer of foam gives you protection from bruises that can be caused on the palms while lifting heavyweights.

Dee mannequin Leather Gym Gloves

If you want to go for affordable leather gym gloves online, here is a good choice that you can consider. The stretchable design of these gloves can fit almost every adult hand making the gloves suitable for almost everyone. The hook and loop closure allows you to customize the fit near the wrist and gives the desired protection to your wrist muscles.

5 O'clock Sports Leather Gym Gloves

Here is another affordable choice in leather gym gloves that will let you exercise easily. These gloves have foam padding for optimum cushioning and comfort. Besides the attractive design, these gloves are available with wrist wrap to ensure comfort and proper grip when you are working out.

ince these gloves are stretchable, they will take the shape of your hand to ensure comfort at all times. Just make sure that you fasten the wrist wraps well before you start working out.

(Source : The Economic Times – 14/01/2021)

LEATHER INDUSTRY COULD BE HEADING INTO DIFFICULT TERRITORY, DESPITE CHINA

The report suggests the leather industry could be "heading into difficult territory again".

The reasons it gives for this are based on the lack of certainty about the months ahead and the problems consumer-facing companies are having in generating positive results. Although the lifting of national lockdowns in mid-2020 was reflected in more promising third-quarter results, uncertainty remains – particularly as coronavirus cases rose again in October and November.

However, China is certainly an exception to this trend. "China has been performing fantastically," Leather Pipeline said, "and the numbers for consumption and production are higher than a year ago. This applies to the whole economy, including leather production and consumption. Factories are producing and people are shopping."

The report goes on to say this is especially true for furniture upholstery. Tanners and furniture manufacturers took advantage of low hide prices earlier in the year to put together collections that have proved popular among consumers, triggering genuine growth in demand.

The automotive leather segment has done well too. This is not the case for side leather producers, though. Tanners in

this segment have seen a fall in business by at least 10% compared with last year and, for some, the decline could be as much as 20–30%.

(Source : ILM – 20/01/21)

FOOTWEAR MARKET FORECAST TO DECLINE BY 22%

Speaking at an online event for Safety Footwear Revolution Week, he said that lower retail activity due to Covid-19 has led to a massive decline in figures from 2019, when the global shoe market reached 22.75 billion pairs. The 22% drop, representing five million pairs of shoes, is so severe that it could take the market back by ten to 15 years.

Decker said that one of the changes that will drive an increase in value in the footwear market in the years ahead is customisation. He lacked confidence that consumers would be willing to pay more for locally made shoes or for shoes with good sustainability credentials, but being able to customise footwear to suit the precise requirements of buyers would bring a boost to the industry.

"This could add 10% to the total production cost," he explained. "But, in return, manufacturers would see an increase of between 30% and 60%, depending on the kind of customisation they can offer."

(Source : ILM – 21/01/2021)

CUT THROUGH THE WASTE

For many years, the process of leather cutting, which involves trimming and punching as well as the cutting itself, has been done manually in tanneries worldwide.

However, the method, which relies on skilled cutters using knives and scissors, appears not to be the most efficient for tanneries, as the amount of cutting waste is often higher than when the task is performed by an automated system.

According to the National Association of Manufacturers of Footwear, Leather goods and Tanning Technologies (Assomac) in Italy, cutting has become a concern for most leather manufacturers. Tanneries have come to realise how important the cutting stage is to optimise leather surfaces, as well as to reduce waste. Also, Assomac notes that a tannery that relies on an improved cutting mechanism might even add value to its service, especially if this tanning company tries to adapt the cut of its skins to its supply chain needs.

The president of the Brazilian Association of the Machinery and Equipment for the Footwear and Leather Industries (Abrameq), André Nodari, agrees that tanneries are more aware of the importance of cutting within the leather manufacturing process. He notes, however, that the cutting stage also draws the attention of other leather-related businesses.

"Cutting is a topic that interests some industries, especially shoes and leather goods manufacturers, [as] making the most of skins might result in much better leather usage," observes Nodari. "Being more accurate when cutting leather not only brings advantages in terms of the quantity of material that can be saved, but also in identifying the highest-quality leather required to produce the most valuable goods."

The head of Abrameq trusts that automated systems can categorically offer benefits that no manual technique can reach. "Automatic cutting machines are able to improve productivity and reduce errors as they are fast, easy to configure and directly

connected to shoe design software like CAD and manufacturing systems software such as CAM, for instance," he notes. Nodari says that while leather cutting appears to be a simple task, it takes a great amount of technology to be done properly and efficiently. "Precision mechanics are needed for the machine itself; power electronics have to be installed to drive the cutting devices fast and accurately; vision systems are required for leather nesting; and, last but not least, carefully designed software running in a powerful computing platform is a must. All of these are in continuous evolution."

Therefore, to be considered an innovation, a cutting machine has to be built in view of the three key features: better leather yield, faster operation and a quicker setup. "To sum up, to be taken as cutting-edge equipment, it essentially has to provide tanneries and leather goods manufacturers with more productivity, among other advantages," Nodari says.

Priority considerations

Lectra, a supplier of technology for manufacturers of automotives, furniture and fashion headquartered in France, also advocates the importance of the cutting stage. Frederic Gaillard, Lectra's vice-president of product marketing for the company's cutting room segment, mentions that full cutting control can lead to direct cost reductions – an advantage that explains why cutting has become a priority for the company's customers over the past few years.

Gaillard guarantees that Lectra's software, along with its equipment and services, enable users to achieve significant material savings when compared with traditional processes. According to Gaillard, when performing traditional cutting, only 50–60% of the material is actually used on average, whereas with their digital cutting solutions companies can use up to 10% more of it. "For some companies in the automotive market, for instance, 1% material saving can possibly mean a monetary saving of € 100,000 over a year," he estimates.

A decreased impact on the environment is another advantage attributed to a more precise cutting system. Gaillard asserts that automated solutions can definitely match consumers' growing expectations in terms of waste reduction and sustainable development, considering that society expects the leather industry to make major commitments concerning all of its processes, including those linked to cutting.

There is a final element that has been contributing to speeding up the adoption of digitalised leather cutting systems worldwide – the shortage of qualified labour for manual cutting jobs. "Leather goods manufacturers have been struggling to recruit staff. Also, the job takes a long time to be learned, a fact that might contribute to explaining why the opportunity of working with leading-edge technologies has become so attractive for many companies in recent years," says Gaillard.

Cutting edge

One of Lectra's aims is to actively offer solutions at the forefront of innovation. That is the reason why the group has invested □208m in R&D in the past ten years. In 2018–19, the amount invested was 11% of the company's turnover. Because of its commitment to offering high-tech alternatives for leather goods manufacturers, Lectra believes its cutting solutions can help considerably by automating the nesting and cutting processes, while at the same time reducing human variability – factors that undoubtedly improve the quality of cutting.

Gaillard notes that Lectra can offer a complete cutting process on a single solution that integrates hide digitisation, nesting, cutting, offloading and quality control. "The equipment must be deployed as part of an initiative to adopt industry 4.0 principles, particularly complete process supervision and data access," he explains, adding that Lectra can also monitor systems remotely and provide reactive, rapid support to customers through its call centre experts across the world.

"A leading-edge cutter like the solutions designed by Lectra represents a decade's worth of investment, but delivers a return on investment in less than three years," says Gaillard. It contributes, he continues, to the profound transformation of companies, their processes and their business models. Companies that invest in these solutions discover a flexibility and adaptability that are essential to face future challenges.

Lectra strongly believes its automated system contributes to the profound transformation of companies, their processes and their business models. The French company assures that companies who invest in these solutions discover a flexibility and adaptability that are essential for facing future challenges. Aware that improvements are needed over time in order to deliver better performance in terms of cut quality, productivity and efficiency, Lectra found a way to protect its customers' investments. Gaillard affirms that the organisation takes into

consideration that a cutting solution constitutes a long-term investment, so the brand regularly updates the brain and controls of their equipment as well as the software to drive and feed it. Since these are the two areas where technological advances are concentrated, Lectra safeguard users from eventual technology suppression. And it worked out for the company, with cutters represent around 10% of its yearly sales.

Mercier Turner – another French machinery supplier, which offers a full range of equipment for tanneries from raw to finishing stages – believes that water jet cutting technology is a great option for companies looking for an efficient way of cutting leather. According to Didier Chambon, the manufacturer's chief executive officer, a high-pressure water jet trimming system that provides a more accurate cutting offers a number of advantages.

Chambon lists a series of benefits provided by the model Cortina, which Mercier Turner produces. It can be used for raw, wet-blue, crust, and finished hides and skins. "The machine is a high-tech product with an automatic vision system and is piloted by a CNC control system. The introduction of a Cortina system within the tanning process is recommend when companies need to automate a difficult but necessary operation, increase productivity as a machine can work much faster than hand trimming, or increase surface, again, taking into consideration a machine is much more accurate than hand trimming," he suggests.

A global effort

Italy is one of the most important leather machinery exporters in the world. In 2019, the country sold more than □132m of its production – a considerable achievement, considering the equipments that are manufactured for tanneries only. Asia is the continent that buys the most Italian machines, at 44.9% of the country's stock. Europe is the destination for 27.6%, while Central and North America take 10.4%, Africa acquires 8.2%, South America 7% and Oceania 1.9%.

For Assomac, Italy has guaranteed its place as one of the most important players in the leather machinery industry due to its reputation, which is grounded in quality and customisation. As the association highlights, the Italian machines manufacturers have historically invested in developing technology according to the customer request, not only in the leather sector, but also in approaching other manufacturing production requirements. As a result, customisation is the added value of the Italian machines sector.

Stephen M Sothmann, president of Leather & Hide Council of America in the US, corroborates the Italian's perception of its own machinery industry. As he explains, most of the machines purchased in the US would likely be of Italian origin. "The US is a minor player in the cutting space, especially with only a handful of companies doing this type of process for leather, so Italy has been our main supplier," says Sothmann.

The tannery Courovale, located in Portão, Brazil, is aware that it has to make investments periodically in machinery in order to maintain its competitiveness and offer its clients innovative and customised leathers. The company, which manufactures 50,0000m2 worth of leathers each month – mostly bovine finished leather – has recently acquired new cutting machines. The Brazilian manufacturer bought two pieces of equipment in 2019: a GPF IR 1700 and an AEFE AF 1600, both of them designed with Italian technology. The machines for trimming and for punching required an investment of $350m. According to Veronica Meurer, commercial manager at Courovale, the machinery provides cutting and a drilling width of 1,800mm as well as a range of textures, embroidering and other programming options that the tannery did not have from their previous apparatus.

Meurer claims that the new assets also brought the company a step forward in terms of surface-usage. "Before we bought the machines, we used to cut the leather manually, which made the process expensive and inaccurate. Besides, it was always difficult to find skilled workers for this cutting stage. Investing in technology made the work more productive and precise, not to mention that it provided us with better production costs," she explains.

In Meurer's opinion, bringing available technology to tannery production lines have become essential to add value to products and take the leather industry to a next level, where efficiency can eventually lead to innovation.

(Source : leathermag.com – 23/01/2021)

This article was originaly published in Vol.-6, No.-08, August' 1958 issue of JILTA.

Symposium Articles :

RECENT SOUTH AFRICAN DEVELOPMENTS IN RAPID WATTLE SOLE LEATHER TANNAGE

S. G. Shuttleworth
Leather Industries Research Institute, Rhodes University, Grahamstown.

SUMMARY

It is submitted that the tanning industry, facing fierce competition with synthetic materials, will not be greatly assisted by rapid tannages achieved by the sacrifice of quality or by the use of additional materials in quantities which add more cost than the economy effected through savings in time.

Low cost, high quality rapid sole leather pit tanning processes are proposed which are based on the following findings :—

(*a*) For a given series of liquors speed of penetration is inversely proportional to tan fixation and firmness, which are determined by the set of the fibre structure at the moment of first contact with liquor. For quality leather, this initial set should take place in pits and not drums.

(*b*) Comparisons of various acids and various acid/salt ratios show that sufficient plumpness of fibres can be obtained for high quality by using a mineral acid, provided the salt content of the liquor is low enough.

(*c*) Considerations of colour and tan oxidation dictate a low pH of tannage, *e.g.*, pH 3.0—3.5.

(*d*) The initial tannage of the grain must be mellow to prevent harshness and case hardening. This requires a high salt/acid ratio.

(*e*) The acid binding capacity of the hide can be used as an acid reserve by deliming in a cheap mineral acid/salt pickle without adding acid to the pits. This reserve does not operate for the salt, which is only carried forward in quantity to the first tan liquor, where it is useful in providing a mellow tannage of the grain.

(*f*) Swelling of the acid fibres in subsequent salt free liquors enhances speed of tannage by drawing in liquor.

(*g*) Contrary to popular belief, the nearly spent tan liquors contain a higher proportion of astringent tannins than the unused liquors, owing to the accumulation of larger tan molecules unable to penetrate the hide, but avidly absorbed by the untanned surfaces of the hides, especially if the surface hide fibres have been opened up by a rapid liming process. A small quantity of polymeric phosphate added to the pickle reduces blockage of the surface channels by astringent tan particles and improves colour.

(*h*) Handlers and layers are of negligible value with liquors which do not form phlobaphenes, serving mainly to increase the concentration of unfixed tans, which can equally well be achieved in the drum.

(*i*) Hot pitting can be used to increase firmness and fixed tans. The modern method, however, is to use chemical tan fixing agents in the filling drum prior to addition of filler.

(*j*) Summaries are given of physical and chemical tests carried out on 2,760 samples of leather tanned in accordance with these findings.

(*k*) The Liritan Rapid Sole Leather process is described and advantages outlined.

F. 1—L.

INTRODUCTORY

Sole leather tanners throughout the world are facing fierce competition with synthetic materials and leather chemists are being called upon to convert this time honoured art into a modern chemical process. Many rapid processes have been proposed and some of these have found large scale application.

In the extreme example of the two minute tanning process (1), the pelt is dehydrated and then permeated with vegetable tannins dissolved in a solvent, followed by immersion in aqueous solution to activate the tannin. For a plump sole leather it would be necessary to accomplish the dehydration without collapse of structure. The cost of dehydration makes this process of doubtful economic value.

A very rapid dry tanning process which makes use of powdered wattle extract, elevated temperature, and drums has been described by FIKSL (2) and involves drumming completely delimed unswollen hides in powdered extract for 24 to 48 hours, using slow moving drums.Our experience with this process is that plumping prior to tannage produces a tendency to drawn and pebbled grain, so that high quality leather is difficult to achieve. The method is very economical and has the great advantage of 100% utilisation of tans.

Many other rapid tanning processes recommended in the literature involve setting the fibres in an unswollen condition which enables strong tan liquor or powdered extract to be drummed in without danger of pebbling. A process which has been recommended by the writer (3) for medium grade leather, involves the use of a standing acid/salt pickle followed by five suspenders, the bottom two of which contain 5% salt to set the grain in a flat condition. These suspenders are followed by drum tannage. The salt in the standing pickle is controlled by daily Barkometer or Baume measurement, while the acid is added in sufficient quantity to give a pH of 3.0 after completion of 24 hours deliming. No pH adjustment of liquors is required.

A modification in the above method could be the use of a bisulphite or alternative deliming process, but the leather obtained is likely to be less firm than the above method, which carries protein bound acid forward to drop the pH of the later salt free liquors.

HUMPHREYS, ATKINSON and BLACKFORD (4) and PETRIE (5) have suggested the use of bisulphited wattle to assist penetration. Adapting this to the above method would require the addition of 1% bisulphite to the top suspenders fellowed by steaming for 6 hours, or the use of bisulphited wattle entirely in the suspender run. Less salt would be required, as bisulphiting increases neutral salts.

An alternative method for setting the fibre structures in a condition suited to rapid penetration and easy drumming is to raise the pH value. This is the basis of a method recommended by HOUBEN (6). Completely delimed, fallen hides are given a pretannage in weak wattle liquors at high pH value, or with a syntan. Subsequent tannage is at pH 3.0 in strong liquors.

Most syntans are well endowed with neutral salts and are thus well suited as retanning agents for a completely delimed fallen hide. Their use for rapid

tannage has been recommended by HUMPHREYS, ATKINSON and BLACKFORD (4) who stress the importance of a fully delimed, unplumped hide for rapid tannage by the method of presetting the fallen fibre structure, with a syntan prior to rapid drum or pit tannage in strong wattle liquors.

A process developed at this Institute by WOODHEAD (7) some ten years ago and used with 100% wattle successfully on the large scale ever since combines the advantages of an unswollen hide structure with the use of strong liquors which diffuse more rapidly. As originally developed, this process was based on a six day system of 100°Bk. liquors adjusted to pH 6.5 followed by a fixing bath at pH 3.0 in 120°Bk. epsom salts which prevents tan loss and ensures good tan fixation. The problems of liquor disposal and oxidation of tans at this high pH if liquors are re-used, have led to modification of the Wood-head process.

Practical experience with this method has shown that a pH of 5.5 works just as well as 6.5, and that a pretannage of the butt grain surface in the weak belly liquors at pH 4.5 is an advantage in catering for any lime carried forward and in setting a smooth grain in mellowed spent tans. Further suggestions are that the pH of the fixing bath is best adjusted with oxalic acid which is a good buffer and also removes iron stains.

A process which has attracted considerable interest in recent years has been the use of the phosphate pretannage for setting the fibre structure, followed by drumming in concentrated tan liquors. LINDER (8) has studied the action of sodium hexametaphosphate (Calgon) and the polymetaphosphates on pelt, and shows that phosphate tanned pelts do not acid swell, and that even strong vegetable tan liquors cannot overtan the grain layer. It would appear that the prevention of acid plumping and the mellowing effects of the phosphate on the affinity of the hide for tannin, enables drums to be used for the vegetable tannage which results in greatly enhanced speed. The total tannage can be completed in four or five days excluding deliming and post tanning operations.

The use of metaphosphates and syntans merely to reduce the time of tannage may be difficult to justify. It can be shown that, at present price levels, the use of 5% on hide weight of a material costing 1/- per pound will add nearly five times the amount saved in capital outlay on hides by reducing total tanning process time by two months. Thus the nett effect may well be to increase rather than to reduce costs. This could only be justified by an improvement in quality.

In general it may be said that the tanning industry has better prospects of holding the sole leather market against substitutes in the good quality field, and therefore the position will not be greatly assisted by rapid tannages achieved by the sacrifice of quality or by the use of additional materials in quantities which add more cost than the economy effected through savings in time. Our work has therefore mainly been devoted to the development of economy with quality in pit tanning processes, where drums are used only to achieve an after tannage filling action.

THEORETICAL CONSIDERATIONS

(A) OPTIMUM FIBRE STRUCTURE CONDITIONS :

We have shown (9) that tan fixation is determined mainly by the set of the fibres at the moment of first contact with the liquor, and it is now widely recognised that a high degree of tannage and a firm leather require the tannage of plump fibres. On the other hand it is equally well known that plumping of the fibres closes the passages between the fibres and slows down the rate of penetration. Carried to excess, this can produce the effect of case hardening, where a raw untanned centre streak persists even after prolonged tannage. It seems apparent that the best compromise between these two effects is to set the grain surface in an unswollen condition under mellow conditions followed by a plump setting of the centre fibres for satisfactory firmness and compactness.

In view of the conflict between penetration and high tan fixation it is evident that it is not possible to operate a sole leather tannage under extreme conditions of plumping, even after the grain has been set under mellow conditions. We have shown (10) that sufficient plumpness of fibre can be obtained for high quality by adjusting to pH 3 with mineral acid, provided the salt content of the liquor is low as in wattle. The use of organic acids to achieve further plumping at this pH tended to reduce fixation owing to poorer penetration of the liquors into the centre.

(B) OPTIMUM TAN LIQUOR CONDITIONS :

ROUX (11) has shown that the rate of oxidation and the colour of wattle liquors are lowered considerably by reduction of pH, while recent work by EVELYN (12) has indicated that the viscosity of wattle liquors (and hence probably the molecular aggregation) tends to be reduced by lowering the pH, the effect being more marked in concentrated liquors. These considerations point to an optimum pH of tannage with wattle in the range 3.0 to 3.5.

ROUX and EVELYN (13) have proved that the average molecular weight and astringency of tan particles are greater in the initial suspenders of a normal counter current tanning process than in the stronger liquors, evidently due to the screening action of the hide into which the larger, more astringent particles cannot penetrate. These particles are absorbed on to the untanned surfaces of the fresh hide, accounting for hash grain and blockage of the surface channels. This screening action can be reduced by feeding the partly spent liquors through open textured hide parts such as bellies and shoulders, thereby rendering them more suitable for mellow initial graining liquors. Alternatively, phosphates or syntans may be used to reduce the affinity of the grain surface for these astringent tannins.

In the old fashioned sole leather process, the early tan liquors were required to act as deliming liquors, and a sufficient organic acid content was required to provide an adequate reserve against lime carried forward by the hide. We have shown that the buffering action of the hide itself can be used to provide both this reserve of acid as well as the adjustment of pH of the tan liquors, and that a mineral acid pickle before tannage can be substituted for the addition of organic acid to the tan liquors. The astringency of such low pH tan liquors on the initial grain tannage can be controlled by bringing forward salt from the pickle, in

counter current process the salt from the pickle is only carried to the first tan pit, and very little passes to the second tan pit. The acid binding capacity of the hide lowers the pH of the whole liquor series. The result is a tan liquor series optimum for mellow tannage of grain as well as subsequent plump tannage of centre fibres.

(C) TAN FIXATION AND YIELD :

ANDERSON (14) has shown that the reaction between collagen and tannin is a rapid one and that prolonged tannage with non bloom forming extracts in handlers and layers has little effect on tan fixation, but increases yield through increased tan concentration around the fibres. Thus there appears to be little advantage to be gained by prolonging the tannage beyond adequate strike through of liquor when filling for yield purposes can be achieved in the drum.

Increased tan fixation and firmness can be achieved by a series of hot pits operated at low pH and low salt content combined with elevated temperature. Alternative methods for achieving a similar effect are by chemical fixation (15, 16) or by drying out followed by retannage (17). Yield is not a serious problem to the modern tanner, who has an effective range of weight providing materials which can be drummed into the leather after completion of the tannage.

(D) PHOSPHATE PRETANNAGE :

In view of the relationship between pH and phosphate uptake, the efficiency of phosphate pretannage is enhanced by using it in an acid salt pickle which can be kept standing and replenished with phosphate after each pack. In this manner the phosphate required to improve colour and grain texture can be reduced to between 1% and 1.5% of the limed hide weight. Higher phosphate concentrations than these are likely to produce a leather which lacks firmness owing to restriction of plumping of the centre fibres.

THE OSMOTAN PROCESS

This process, developed by us some five years ago, has been successfully and continuously used on the large scale in South Africa and Australia for a considerable period. The process has been designed to combine speed of penetration of the tan liquors with a satisfactory degree of acid plumping, and in this respect it differs from those rapid methods which depend for speed on a fallen fibre structure. At the same time costly auxiliary chemicals are not used, even the deliming acid being inexpensive sulphuric acid.

Sulphuric acid is sparingly used for adjusting pH of suspender liquors partly because of its lack of buffering power and partly because its addition to the weaker tan liquors on a large scale tends to cause tan precipitation and increase sludge due to high local concentration. In the Osmotan process this is overcome by utilising the high buffering power of the hide to adjust the pH of the liquors, supplemented if needed, by feeding down from the strong liquors a small amount of acid which can be added to 100°Bk. liquors with little danger of precipitation. By feeding up acid from a sulphuric acid + salt pickle and feeding down a small amount of acid, it is possible to maintain a constant pH of 3.0 to 3.3 with

only an occasional routine check. If additional safety is required, the adjustment of the pH of the 100°Bk top liquor may be achieved with lactic acid instead of sulphuric acid.

If the pickled hides containing acid + excess salt were given a grain tannage overnight and then allowed to plump by washing out the salt, followed by tanning in the usual liquors at pH 3.3, the resulting leather would not differ markedly in character from the old fashioned hemlock tannage (5) nor from the method presently used by many British tanners.

The Osmotan process, however, takes advantage of the fact that, in order to plump, the hide will draw in surrounding solution so that by placing the surface tanned hide in tan liquors of low salt content at pH 3.3, these liquors are drawn in rapidly by the hide, thus greatly speeding up the rate of tannage. In order that the maximum advantage may be taken of this suction effect, it is obviously necessary to have available sufficient tannin in the liquor to saturate the fibres, and so the liquors must be planned to provide this reserve of tannin at the correct moment. The following methods have achieved success in large scale trials.

DETAILS OF THE OSMOTAN RAPID TANNAGE FOR SOLE LEATHER

Method A,

Using drums (Arrows show liquor movement).

TABLE 1

OSMOTAN METHOD FOR 100% WATTLE

Time	Butts	Bellies and Shoulders
1 day	Pickle in H_2SO_4 + 10% Salt on liquor	Pickle in H_2SO_4 + 10% Salt on liquor

(About ½% H_2SO_4 on limed stock weight usually required in pickle)

1 day	Grain Tannage pH 3.0 25°Bk	Grain Tannage pH 3.0 20°Bk
1 day	1st Plumping Pit pH 3.1 60°Bk	1st Plumping Pit pH 3.1 30°Bk
1 day	2nd Plumping Pit pH 3.2 67°Bk	2nd Plumping Pit pH 3.2 37°Bk
1 day	3rd Plumping Pit pH 3.3 74°Bk	3rd Plumping Pit pH 3.3 45°Bk
1 day	4th Plumping Pit pH 3.3 80°Bk	4th Plumping Pit pH 3.3 52°Bk

(Arrows show liquor movement)

Tannage completed by drumming 48 hours in 100°Bk wattle at normal pH.

NOTES :

1. It should be noted that deliming is not usually complete after 1 day in pickle, but becomes complete during the grain tannage.
2. Sufficient salt is carried over from the pickle to mellow the grain tannage.

THE LIRITAN RAPID PROCESS

The effect of the "Osmotan" process described above has been to reduce the time of vegetable tannage to the same as that normally required for soaking and liming. The main objective of subsequent work in South Africa has been to shorten the beamhouse process without interfering with yield or quality.

Over a period of two years, a large variety of soaking and liming processes were tried out, occupying various times from 24 hours to 9 days, and utilising a range of soaking and lime sharpening chemicals. It was found that any treatment tried which involved rapid unhairing and consequent harsh action on the grain surface caused a rapid surface fixation of tans which resulted in a reduced rate of penetration of the tans and a lengthening of the tan process. The poorly tanned centre streak of the hide affected the physical properties, giving rise to increased water absorption, and lower compaction on compression.

Comparative experiments using synthetic tannin and polymeric phosphate to reduce this high tan affinity caused by rapid liming processes, showed that phosphate added in the acid salt pickle gave as rapid a rate of penetration with harsh liming processes as had been achieved with long mellow processes without phosphate. In addition, there was a very marked improvement in colour and feel of the finished leather.

Table 2 gives a summary of results obtained on 2,400 samples of leathers taken from all parts of the butt area and not filled or bleached after tanning.

TABLE 2

EFFECTS OF VARIOUS TREATMENTS ON PHYSICAL PROPERTIES OF SOLE LEATHER

(*Note :* These leathers were not filled. Samples covered all parts of the butt area).

(a) Osmotan Process — No Calgon (1620 samples)

Liming Method	No of Samples	Rate of Penetration	Leather Yield	Water Absorption	Dry Rigidity	Compressibility of Dry Unrolled Leather 5000 lbs./ sq. ins.	Compressibility of Dry Unrolled Leather 10,000 lbs./ sq. ins.
3 Mellow 1 week pit limings ..	(180)	Good	Good	42.9%	33.7 Lbs.	6.3%	14.5%
6 Drastic 1 week pit limings ..	(360)	Fair	Good	42.2%	31.6 Lbs.	8.4%	16.2%
4 Long Float 48 hr. drum limings ..	(240)	Fair	Good	43.7%	32.9 Lbs.	6.5%	14.2%
8 drum 6 hr. paste + 42 hour long float limings ..	(480)	Poor	Poor	53.5%	36.3 Lbs.	5.0%	11.2%
6 drum ¼ hr. Paste + 47 hour long float limings ..	(360)	Poor	Poor	52.4%	30.6 Lbs.	5.1%	10.9%

Liming Method	No of Samples	Rate of Penetration	Leather Yield	Water Absorption	Dry Rigidity	Compressibility of Dry Unrolled Leather 5000 lbs./ sq. ins.	10,000 lbs./ sq. ins.
Phosphate Osmotan Processes							
2 Mellow 1 week pit limings ..	(120)	Good	Good	43.1%	30.3 Lbs.	7.2%	16.0%
10 Drum ½ hr. paste + 47 hour long float limings ..	(600)	Good	Good	42.4%	34.1 Lbs.	5.9%	14.2%
1 Drum ½ hour paste + 23 hours long float liming ..	(60)	Good	Good	45.4%	36.5 Lbs.	6.2%	13.5%

NOTES :

1. Water absorption determined by 24 hour soak of 2 inch square.
2. Dry Rigidity determined by force required to bend 2 inch square sample clamped on one edge.
3. Compressibility determined by thickness reduction after applying pressure.

The polymeric phosphate used in the second half of Table 2 was Calgon. Experiments carried out on various levels of Calgon showed that initial addition of 2½% on limed hide weight followed by daily replenishment with 1¼% Calgon on limed hide weight gave adequate protection of the grain. The salt content of the pickle could be reduced to 5% and replenished daily by Barkometer or Baume measurement prior to adding the 1¼% Calgon and approximately 1½% sulphuric acid to restore the pickle. Analyses of the leathers showed very good utilisation of Calgon by this method.

A final series of experiments was carried out to compare three commercial types of polymeric phosphate, using both mellow pit 1 week limings as well as a 24 hour beamhouse process as follows :—

24 HOUR BEAMHOUSE PROCESS

Place wet salted hides in slow running drum. Wash ½ hour with two changes of water. Drain. Add 1% sodium sulphide + 2% lime + 5% water. Drum ½ hour. Wash ½ hour. Place in rocker type or agitated lime pit sharpened with 1% caustic soda for balance of 24 hours. Unhairing should be complete after the first half hour, otherwise more sulphide must be used.

The avantages of this liming method, apart from speed, are firstly that one liming drum can be used for a large number of packs, secondly that the sulphide is almost entirely absorbed by the hair and can be handled separately from the main effluent, and thirdly that rounding and sorting can take place before the main liming process which can then be varied according to requirements.

The results are given in Table 3.

TABLE 3

COMPARISON OF VARIOUS POLYMERIC PHOSPHATES

(Mean of 60 samples in each case)

Phosphate used	Type of liming	Location of samples	Limed Moisture	Tanned Moisture	Tanned Wt. / Limed wt.	Yield *
None	Rapid	Butt	70.65%	45.52%	104.5	194.0%
None	Rapid	Belly	76.52%	51.80%	103.9	213.3%
None	Slow	Butt	71.34%	45.91%	111.9	211.2%
None	Slow	Belly	77.15%	53.82%	108.6	219.5%
					mean	209.5%
Calgon	Rapid	Butt	72.44%	47.76%	110.9	210.2%
Calgon	Rapid	Belly	79.15%	56.16%	109.3	229.8%
Calgon	Slow	Butt	72.08%	45.86%	110.6	214.5%
Calgon	Slow	Belly	78.16%	55.42%	110.5	225.5%
					mean	220.0%
Vitrafos	Rapid	Butt	71.89%	45.77%	110.7	213.6%
Vitrafos	Rapid	Belly	78.49%	57.64%	111.3	219.2%
Vitrafos	Slow	Butt	70.39%	42.90%	111.2	214.4%
Vitrafos	Slow	Belly	76.29%	54.09%	110.3	213.6%
					mean	215.2%
"696"	Rapid	Butt	72.04%	46.71%	107.2	204.3%
"696"	Rapid	Belly	77.03%	53.71%	106.4	214.5%
"696"	Slow	Butt	71.08%	45.31%	112.3	212.3%
"696"	Slow	Belly	76.99%	55.63%	110.7	213.6%
					mean	211.2%

* Yield calculated as moisture free leather/moisture free limed pelt.

In the case of Calgon and Vitrafos all samples were thoroughly penetrated after tannage, while there were a number of inadequately penetrated butt samples in the case of the "696" where rapid liming had been used. The analyses of liquors and leathers during tannage revealed a much lower uptake of "696" compared with Calgon and Vitrafos.

It would appear that the more highly polymeric phosphates such as "696" are less satisfactory than polymers of moderate size such as Calgon and Vitrafos.

F. 2—L.

THE LIRITAN WATTLE SOLE LEATHER PROCESS

South African tanners have confirmed the advantages of using a low percentage of polymeric phosphate in conjunction with the Osmotan process, even where a mellow pit liming is used. Improved colour and a finer grain have resulted. The 24 hour liming process cannot normally be achieved on the large scale owing to loss of time in handling. Extension to a 48 hour process can be recommended for large scale trial. The hides are transferred directly from the unhairing drum to a straight lime liquor pit. The following day they are fleshed, scudded and rounded, and placed overnight in a second lime liquor sharpened with 1% caustic soda. Agitation of the lime liquors is very desirable for rapid and uniform liming.

The recommended Liritan process is as follows :—

TABLE 4

LIRITAN RAPID SOLE LEATHER PROCESS COMBINED BUTT AND OFFAL TANNAGE

2 days — Beamhouse as above

	Butts	Bellies and Shoulders
1 day	Pickle in H_2SO_4 + 5% Salt + 2½% Phosphate	Pickle in H_2SO_4 + 10% Salt (Phosphate not usually reqd.)

(Regenerate pickle daily with 1½% Phosphate + approximately 1½% H_2SO_4 + approximately 3% salt for butts and 5% salt for bellies)

	Grain Tannage		Grain Tannage	
1 day	pH 3.0	20°Bk	pH 3.0	15°Bk
1 day	pH 3.1	67°Bk	pH 3.1	26°Bk
1 day	pH 3.2	74°Bk	pH 3.2	32°Bk
1 day	pH 3.3	81°Bk	pH 3.3	39°Bk
1 day	pH 3.3	88°Bk	pH 3.3	46°Bk
1 day	pH 3.3	94°Bk	pH 3.3	53°Bk
1 day	pH 3.3	100°Bk	pH 3.3	60°Bk

(Arrows show liquor movement)

NOTES :

1. Deliming is not usually complete with heavy hides until after the grain tanning pit. Sufficient acid is carried over from the pickle to take care of this.
2. pH adjusted in strongest liquors only and by modifying acid added to pickle.
3. The above system can be combined into a single press over battery of 4 tan pits.

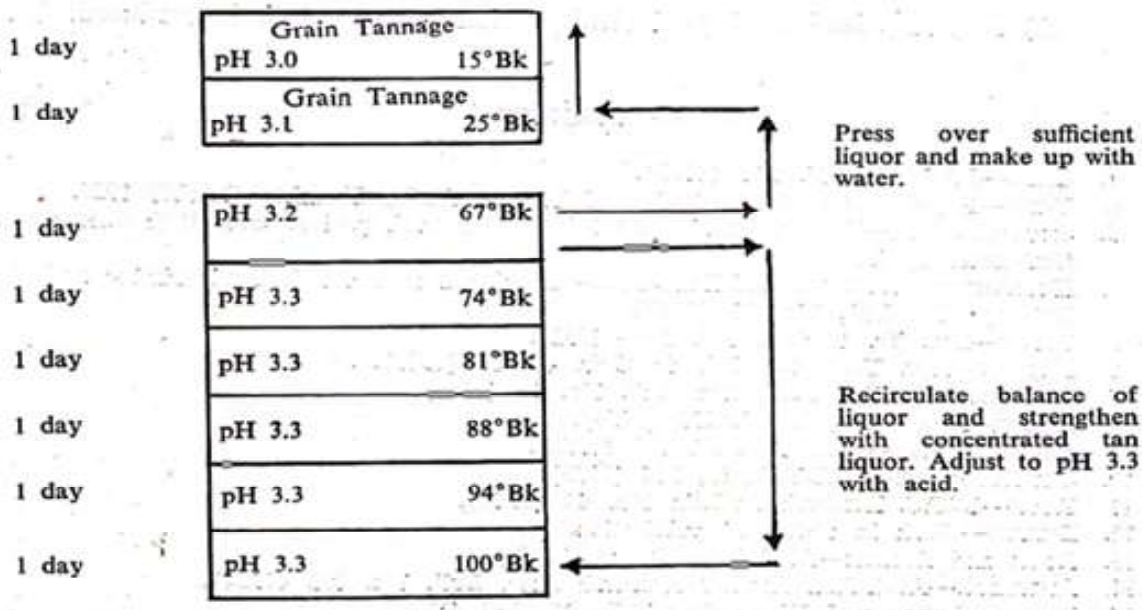
1 day. *Fixing and Filling.* Transfer to drum and add chemical fixing agents. Drum 1 hour. Add powdered extract and filler. Drum untill absorbed.

BUTT TANNAGE ONLY

Although the intervention of the belly and shoulder run has the advantage of spending the more astringent larger tan particles which are screened out by the closely woven butts, the Liritan process is being operated successfully on the large scale by a recirculation method. In order to avoid accumulation of salts it is desirable to take an extra day over the process in order to use two graining liquors as follows :—

TABLE 5

RECIRCULATION PROCESS FOR BUTTS ONLY



The beamhouse pickle, fixing and filling processes are as described above, and add on a further four days.

A further reduction in handling time and labour can be achieved by maintaining all the six recirculated liquors of the above process at 100°Bk, provided that the suspended hides are separated occasionally by passing a flat wooden blade between them. Such liquors should be discharged when the salt content reaches 1%.

ADVANTAGES OF THE LIRITAN PROCESS

(*a*) The deliming and pH liquor adjustments can safely be carried out with low priced mineral acid.

(*b*) Maximum value is obtained from the small quantity of Phosphate used.

(*c*) The process works well with a pure wattle tannage, which is low in cost per unit of tannin.

(*d*) Complete spending of the tan liquor is achieved.

(*e*) All the tan liquors are at pH 3.3 so that oxidation of tan is minimised, and a good colour is ensured.

(*f*) Although the process is a pit tanning process and not a drum process, the total time from salted hide to drying shed is 11 days. This can be shortened by a further 3 days by introducing a partial drum tannage if desired.

(*g*) When the process has settled down it requires very little supervision and control.

(*h*) A plump leather of good yield, substance and colour is produced.

REFERENCES

1. CHEN—J.A.L.C.A., *48*, 521 (1953).
2. FIKSL—Paper read to S. A. Section of Leather Trades Chemists, October 1956.
3. SHUTTLEWORTH—"Wattle Tannin and Mimosa Extract", p. 189. Grocott & Sherry, Grahamstown, 1955.
4. HUMPHREYS, ATKINSON and BLACKFORD—Circular from Forestal, Land, Timber and Railways Co. Ltd., No. 23 (1953).
5. PETRIE—Lea. Tr. Review, *106*, 667 (1952).
6. HOUBEN—Rev. Tech. des Ind. du Cuir, *40*, 29 (1948).
7. WOODHEAD—L.I.R.I. Tech. Res. Bull. No. 14 (1946).
8. LINDER—Das Leder, 1, 203, 233 (1950).
9. SHUTTLEWORTH—J.A.L.C.A., *47*, 603 (1952).
10. SHUTTLEWORTH—J.S.L.T.C., *37*, 206 (1953).
11. ROUX—L.I.R.I. Research Bulletin No. 64 (1948).
12. EVELYN—Work in course of publication.
13. ROUX and EVELYN—J.A.L.C.A., *52*, 58 (1957).
14. ANDERSON—Australian Leather Research Assc. Bull. No. 102 (1954).
15. BOWES, QUINN and WARD—J.S.L.T.C., *32*, 377 (1948).
16. BOHME and SCHWARZER—Das Leder, 2, 97 (1951).
17. SAGERSCHEN—Das Leder, *4*, 37 (1953).

3 KEY ECONOMY-SHAPING TRENDS OF 2021

Accelerating inequality, the market dominance of tech platforms and remote working are likely to be the longest-lasting legacies of the COVID-19 crisis, the WEF said in a report.

Releasing its Chief Economists Outlook report during the online Davos Agenda Summit, the WEF said that beyond managing the pandemic and vaccine rollout, these trends could shape a new era of fiscal, monetary, and competition policy.Deglobalisation is seen as the least likely of the current trends to continue in the longer term; particularly as international coordination is key to resolving global challenges such as vaccine manufacturing and distribution.

The report, compiled after consultations with leading chief economists from the public and private sectors, showed they are impressed at the speed and scale of fiscal policy measures taken in the wake of the pandemic.However, as the global vaccination campaign picks up pace, they see the second half of 2021 as the optimal time to begin transitioning from general emergency spending to more targeted spending on future growth sectors.

A majority suggests that taking action to pay down the significant national debts accumulated in the past year can wait until 2024 or beyond.With central bank financing of public debt through quantitative easing now at the core of monetary policy in response to the crisis, chief economists believe this could lead to less central bank independence over time.

Many also suggested that central banks should be pursuing environmental objectives directly through their asset purchases, which would represent a significant departure from past practice.Most chief economists expect a brighter outlook as the vaccine helps accelerate recovery, and as a new US administration contributes to tackling short-and long-term challenges, both domestically and globally, through revived multilateral institutions.

However, most of those surveyed see virus mutations as the biggest risk for 2021, slowing efforts to contain the pandemic and leading to new lockdowns.Another concern relates to poorly calibrated policy responses that risk failing to differentiate between the deep structural impact of the pandemic on some sectors and the temporary halting of activity in other sectors.

."This report makes clear that precisely calibrated and coordinated fiscal, monetary, and competition policy hold the key to global economic recovery and transformation."As the roll-out of vaccines picks up pace, there won't be a better time for governments to work together and invest in a fair transition to a greener, more inclusive economy," WEF managing director Saadia Zahidi said.

(Source : PTI – 25/01/2021)

WHAT WILL DRIVE INDIA'S GROWTH IN 2021?

If we work together with dedication, concentration and effort, we should be able to achieve our aspirational growth target of double-digits for a very long period of time, asserts K V Kamath, the distinguished banker.Before we look ahead to 2021, let us pause and look at the current financial year. Corporate numbers were a positive surprise.If we consider Q1 and the monthly performance thereafter, we saw a steady improvement on all parameters.

Particularly noticeable was the top line of corporate India broadly recovering to pre-Covid levels and the remarkable

improvement in absolute EBITDA numbers and margin.Similarly, GDP numbers were a positive surprise coming in much better than the expectations, indicating that we are most likely to be in a V-shaped recovery, giving us plenty to do in 2021.

What will drive growth in 2021 and the future ?

We have a huge opportunity to modernise and drive agriculture and animal husbandry, and harness water.In this process lies the possibility to move value-added agro-industries to rural India, providing employment and improving livelihoods.

On the infrastructure front, it is clear that India is yet to be built: Providing housing for all; expanding and modernising health and education; rebuilding urban India; connecting India, be it through vastly improved road networks, rail networks, high-speedrailways, modern metro and other transportation systems in cities, new ports, expansion of existing ports; improving airports and power supply; and in particular making India clean and green.

In short, a 25-year opportunity to grow.

On the manufacturing front, we are in an exciting phase.The pandemic taught manufacturing India to extract efficiencies and productivity gains.Other parts of the economy will leverage these learnings into their future operations and prosper from it.
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The next growth driver is possibly the most exciting of all: The services sector.The learnings from this sector and what is possible are already visible, be it in e-learning, e-health, work from home in the areas of information technology, banking and financial services and parts of government.These would grow at a rapid pace as they are scaled.

While we are doing all this, in parallel lies the task to prepare ourselves for the digital super cycle by laying the foundation of a digital India.The digital super cycle will encompass progress in all areas and will accelerate further on advancements in machine learning and artificial intelligence.

We are boarding this super cycle at an opportune and affordable time. To understand this, we only have to see the cost of access in India.Broadband cost in our country is the lowest anywhere in the world.This gives everybody, be it a person in the village or a person in urban India, equal access to the benefits of the super cycle.

In India, the digital super cycle will grow by also leveraging the vast pool of technology workers who can be redeployed for this effort.We will most likely now see products and applications and indeed platforms that will originate in India for use in India and for the world.We will also see a vast number of start-ups in these areas.

It would be right to say that the digital super cycle will be driven by what I would like to call start-up India.These firms would be fully capable of leveraging technology into a vast array of business applications.

Are there going to be any losers in this?Indeed, any business which is not capable of resetting its mind, adapting to the new normal and leveraging learnings at a never before pace, will be under challenge.In a way it is going to be a David and Goliath story.The small but nimble and agile challenger, able to build scale and capability and mount a challenge, is going to be the winner in this race.

We have so far looked at early advances in the digital super cycle using the phrase fintech.My belief is that fintech is going to be just a small part of this super cycle, which will encompass almost every area of life.We will be helped in this effort by the global backdrop, which is benign, our external account, which is surplus, and a low interest rate scenario where, at this point in time, the entire T-bill yield curve is below policy rates.

We are also in a period of ample liquidity, both global and local.The global liquidity allows us to scale up our FDI significantly.India's financial system is now well-placed with years of responsible growth to fuel an accelerated economic upcycle.If we work together with dedication, concentration and effort, we should be able to achieve our aspirational growth target of double-digits for a very long period of time.

While we do all this, we need to remember that there is a still a degree of pain in the system and those who need a helping hand, be it at the individual level or at the corporate level, continue to get the support they need.

(Source : Business Standard – 25/01/2021)

BUDGET 2021 : GOVT MAY TARGET FISCAL DEFICIT AT 4% OF GDP BY 2025-26

To enable widen the fiscal deficit beyond the permissible limit under the present legislation, the government may have to propose amendment to the FRBM Act in the Finance Bill.

The Centre is likely to lay down a road map in the upcoming Budget to reduce its fiscal deficit to 4 per cent of gross domestic product (GDP) by 2025-26.This is necessary because there will be demands for expansionary policies, even in the next couple of years.This implies the government is set to deviate from the long-standing medium-term target of 2.5-3 per cent of GDP as prescribed by amendments to the Fiscal Responsibility and Budget Management Act (FRBM). The government had changed the recommendations of the N K Singh Committee on fiscal consolidation and targeted bringing down the fiscal deficit to 3.1 per cent of GDP by 2022-23 (FY23).

However, to enable widen the fiscal deficit beyond the permissible limit under the present legislation, the government may have to propose amendment to the FRBM Act in the Finance Bill."Keeping the whole fiscal maths in mind, along with the numbers of the first three quarters, it is expected that the fiscal deficit of the current fiscal year may be higher than the Budget Estimates (BE) of 3.5 per cent."So, achieving a 3-per cent medium-term target looks unlikely.

"In the next five years, we will aim for around 4 per cent, which is good enough. The ultimate aim is economic revival and that is possible with structural reforms and spending.

"However, it has its unanticipated fiscal implications," a senior official said.

The change in the fiscal road map would come in the wake of contracting GDP growth and a big mismatch in revenue collection and expenditure due to the Covid-19 pandemic.The fiscal deficit in the first half of the fiscal year touched 10.71 per cent of GDP, based on the second-quarter national accounts data released by the National Statistical Office.The deficit has surpassed the BE by a whopping 35.1 per cent till November of the current fiscal year.

With the contracting economy, any amount of fiscal deficit would be a higher percentage of GDP than projected at the time of the Budget presentation last year.With GDP officially projected to decline 4.2 per cent at current prices to Rs 194.82 trillion in 2020-21 (FY21), even if the fiscal deficit does not go beyond Rs 12 trillion market borrowing, it would be 6.1 per cent of GDP.

"The economy has been slowing for the past three fiscal years and tax revenue growth has fallen, whereas expenditure has been rigid. In the given situation, if you have a revenue deficit, it means the government is financing the current deficit, which is not in line with the FRBM's mandate."Since India has a large infrastructure deficit because of the swallowed debt market, a rise in fiscal deficit, which is expected in FY21, is unlikely to reduce sharply," said India Ratings chief economist Devendra Pant.

He said as long as the share of the revenue deficit in the fiscal deficit went down, it was a welcome sign, assuming additional borrowing would be for financing infrastructure in the country.The revenue deficit was almost 40 per cent higher than the BE in the first eight months of the current fiscal year.The FY21 Budget used the escape clause to the maximum to widen the Centre's fiscal deficit by 0.5 percentage points beyond the fiscal consolidation road map for 2019-20 (FY20) and FY21.

The BE had pegged the deficit at 3.3 per cent of GDP for FY20, but the Revised Estimates projected it to be 3.8 per cent.The deficit turned out to be much more at 4.6 per cent of GDP that year.The fiscal deficit is the difference between a government's expenditure and revenues.When revenue is higher, the Budget is seen as fiscal surplus.The FRBM Act initially wanted the government to rein in its fiscal deficit to 3 per cent of GDP by 2008-09.The Budget that year did target reducing it by 2.5 per cent.

However, after the Lehman crisis and fiscal expansionary policies by the Centre, the fiscal deficit was over 6 per cent of

GDP that year.After that a 3 per cent deficit target remained elusive.The N K Singh panel, constituted to review fiscal consolidation, wanted the deficit to be 3 per cent by 2017-18 and keep it at that level for the next two years, that is, till FY20.It should then gradually come down to 2.8 per cent in FY21, and 2.6 per cent in 2021-22. In FY23, it should be 2.5 per cent.

(Source : Rediff.com – 25/01/2021)

HOW PSUS ARE CAUGHT BETWEEN GOVT AND MARKETS

In trying to meet its ambitious divestment target of Rs 2.1 trillion for the current financial year, the government plans to push ahead with stake sales of public sector units in the market.Raising income from divestment has become even more critical this year as the government seeks to finance infrastructure and other spending to revive the pandemic-hit economy.

But in doing so, it is facing a troubling issue.Public sector enterprises have seen their market capitalisation drop 16.6 per cent since the beginning of calendar 2020, against an 18 per cent rise in m-cap of all listed companies during the same period and this is true for peer-to-peer comparisons as well.

For example, State Bank of India, the country largest bank, has a market cap that is a third of its private sector peer HDFC Bank. This is the case with many public sector companies, where valuations is a concern and the government faces difficulty in realising returns for its equity.

Overall, central PSUs' share in total market capitalisation has more than halved from 15.9 per cent in March 2014 to 6.1 per cent in December 2020.The number of PSUs increased from 39 to 54 in the same period.As a result, the job of Department of Investment and Public Asset Management (DIPAM) has become even more challenging.

To deal with these anomalies, the government has mandated that PSUs outline a plan to monetise non-core assets and pay the government an assured sum as dividend.These have been made a part of the memorandums of understanding PSUs sign with the government.

But can PSUs, by themselves, do much?D K Srivastava, chief policy adviser at EY India, said PSUs can work on increasing their market cap only to a limited extent."Even if operational efficiency is high and financials are robust, movement of markets and market cap depends on the global economic situation," he said.

But the bigger problem is that PSU stocks are a victim of subdued investor sentiment owing to the perception that government directives or policy tweaks may not be in the interest of non-government shareholders."There is a need for PSUs to compete in the market and need for accountability of the company's board," said N R Bhanumurthy, vice chancellor at Bengaluru's B R Ambedkar School of Economics (BASE) University.

Not just the companies, but the government should also bring market-friendly reforms for sectors in which these PSUs are involved, he added.The demand for higher dividend pay-outs will also constrain PSUs' capacity to improve their performance.Earlier, PSUs were required to pay a minimum annual dividend of 5 per cent of their net worth or 30 per cent of profit after tax, whichever was higher.

Now they will have targets set for dividends they should pay the government every year.Recently, DIPAM has also asked companies to transfer interim dividend to the government quarterly and half yearly from an annual payment arrangement at present.This raise concerns that high dividend payout may impact PSUs' capex cycles.

In FY20, about 55 PSUs paid a total equity dividend of around Rs 47,000 crore against their net profit of Rs 82,750 crore, translating to a pay-out ratio of 57 per cent.In the past five years, these 55 listed PSUs cumulatively paid equity dividend worth Rs 2.75 trillion, against their cumulative net profit of Rs 3.85 trillion, which translates to a record pay-out of 71.5 per

cent, *Business Standard* had earlier reported."The government has been invested in these PSUs over a long period of time and these investments have yielded minimal return due to operational inefficiencies.

"So, the government is justified in seeking a steady dividend, but it should not resort to high one-time dividends that can impact a company's expansion plans," Srivastava said. But as Bhanumurthy pointed out, the finance ministry keeps writing to PSUs year after year to shell out more dividends, but companies keep ignoring the request stating they have planned expansion which have not been fully implemented.

In the current financial year, PSUs have the capital expenditure target of around Rs 6.7 trillion against Rs 7.1 trillion in the last financial year (which includes expenditure by Food Corporation of India).Finally, PSUs have to outline a roadmap for asset monetisation and the efforts taken to realise value from idle non-core assets such as land and property.

But legal hurdles have stalled the plan for years. To kick off sales of such assets, DIPAM had earlier classified PSU non-core assets as those that don't have any pending disputes or those that can be quickly resolved.It's also soon going to announce an online bidding platform to sell PSU assets that are litigation-free. State-owned firms have also been asked to settle long-pending disputes so that such land holdings can also be hived off.The problem here is that land title changes and settling litigation would require close cooperation with state governments.For instance, Scooters India, which will soon be shut, has land disputes with the Uttar Pradesh government for two land holdings which cannot be sold unless the dispute is settled.

"There's nothing much the companies can do," said Bhanumurthy. These are issues for which solutions have been attempted by various governments in the past, but with limited success. However, such an attempt would lead to less damage to public sector assets in future, he added.EY's Srivastava said there should be an active and aggressive plan to sell such assets that are under litigation and the central and state governments should form specialised teams to oversee this exercise.Once assets are monetised, the PSUs can use the proceeds for their own expansion and to pay the government higher dividends.

(Source : Business Standard – 24/01/2021)

INDIA'S GDP TO CONTRACT 8% IN FY21: FICCI SURVEY

India's gross domestic product (GDP) is expected to contract by 8 per cent in 2020-21, according to the latest round of FICCI's Economic Outlook Survey. The annual median growth forecast by the industry body is based on responses from leading economists representing industry, banking and financial services sector. The survey was conducted in January. The median growth forecast for agriculture and allied activities has been pegged at 3.5 per cent for 2020-21. "Agriculture sector has exhibited significant resilience in the face of the pandemic. Higher rabi acreage, good monsoons, higher reservoir levels and strong growth in tractor sales indicate continued buoyancy in the sector," FICCI stated on the survey findings.

However, industry and services sector, which were most severely hit due to the pandemic induced economic fallout, are expected to contract by 10 per cent and 9.2 per cent respectively during 2020-21. The industrial recovery is gaining traction, but the growth is still not broad based. The consumption activity did spur during the festive season as a result of pent-up demand built during the lockdown but sustaining it is important going ahead, the survey said.

Besides, it observed that some of the contact intensive service sectors like tourism, hospitality, entertainment, education, and health sector are yet to see normalcy."The quarterly median forecasts indicate GDP growth to contract by 1.3 per cent in the third quarter of 2020-21. The growth is expected to be in the positive terrain by the fourth quarter with a projection of 0.5 per cent growth," estimates the survey. Further, on the estimates of other macro parameters, the survey participants put the

median growth forecast for IIP at (-) 10.7 per cent for the year 2020-21, with a minimum and maximum range of (-) 12.5 per cent and (-) 9.5 per cent respectively.

WPI-based inflation rate is projected to be flat in 2020-21. On the other hand, CPI-based inflation has a median forecast of 6.5 per cent for 2020-21, with a minimum and maximum range of 5.8 per cent and 6.6 per cent respectively, the survey revealed. On the fiscal front, a slippage is imminent this year and the median estimate for fiscal deficit to GDP ratio was put at 7.4 per cent for 2020-21 by the participants with a minimum and maximum range of 7 per cent and 8.5 per cent respectively. Fiscal deficit for 2020-21 was budgeted at 3.5 per cent.

However, participants of the survey expect the economy to perform much better and have projected a median GDP growth rate of 9.6 per cent for the financial year 2021-22. The strong rebound in growth will be supported by a favourable base as economic activity normalizes post the sharp pandemic led contraction. The minimum and maximum growth was forecast at 7.5 per cent and 12.5 per cent respectively.

"However, a surge in the number of COVID-19 cases and the appearance of new strains can be a deterrent to the improving growth conditions. It is therefore important that preventive measures continue to be in place," Ficci said. A good vaccine coverage without many cases of adverse reporting will be a pre-requisite for the normalization process, it added.

However, economists participating in the survey were deeply concerned about the global liquidity situation which, at present, is significantly in surplus and is finding ways to enter asset markets. The participants called upon global central banks to remain watchful of the situation and not allow overheating of markets. Moreover, despite optimism on the growth front, economists cited persistent risks to unemployment and therefore felt the need for continuous monitoring on that front. Sharing their expectations from the Union Budget, a majority of the participating economists suggested increased public expenditure on building infrastructure. They suggested that the government restructure its expenditure in favour of capital spending (in roads, railways, urban and rural infrastructure, housing) along with providing a clear roadmap and financing plans of the National Infrastructure Pipeline announced in the latter part of 2019.To enhance revenue collections, economists suggested that government utilizes the current buoyancy in market sentiments to their favour by pushing for disinvestments.

They also underlined the need for continuous focus towards ease of doing business while simultaneously reducing the cost of doing business in India. They also suggested a relief package for the services industry particularly those which were most impacted/continue to be deeply impacted by the pandemic including travel & tourism, hospitality, transport, education and healthcare sectors. Economists participating in the survey have called for increased budget allocation for critical social sectors such as health and education given the current situation.

They said the spending on creation of agriculture infrastructure must be expedited which would result in enhanced capacity of cold storage and warehousing facilities in the country. "Employment creation and consumption revival remain the key areas for ensuring a sustainable turnaround in economic prospects.

Therefore, they called upon the government to announce temporary fiscal stimulus to support consumption in the form of income tax breaks or direct income transfers," the economists in the survey said. To ease the employment situation in both rural as well as urban areas, they called for greater budget allocations to MGNREGA along with introduction of an urban employment guarantee scheme similar to its rural equivalent.

(Source : Financial Express – 26/01/2021)

HIGH FISCAL DEFICIT TO POSE CHALLENGE IN LOWERING INDIA'S DEBT/GDP RATIO: FITCH

Fitch Ratings on Wednesday said India's high fiscal deficit would pose a challenge in lowering the debt to GDP ratio, which is expected to rise above 90 per cent in the next five years. It said India entered the pandemic with little fiscal headroom from a rating perspective. Its general government debt/GDP ratio stood at 72 per cent in 2019, against a median of 42 per cent for 'BBB' rated peers.

Fitch said the budget points to a loosening of fiscal policy to support the country's ongoing economic recovery from the pandemic and will consequently lead to a rise in public debt.

The debt/GDP trajectory is core to our sovereign rating assessment, meaning higher deficits and a slower consolidation path will make India's medium-term growth outlook take on a more critical role in our analysis, Fitch Ratings said in a statement. It now expects public debt/GDP to rise above 90 per cent of GDP over the next five years, based on the revised budget targets. However, recent reforms and policy measures, including those announced in the budget, could also influence the rating agency's growth expectations and its debt trajectory forecasts.

Fitch estimated India to clock a 11 per cent growth in the fiscal beginning April and then grow at 6.5 per cent a year through to 2025-26 fiscal. The agency had in June last year revised India's 'BBB-' rating outlook to negative from stable based on its assumptions of the likely impact of pandemic on public finance. " The budget's deficit projections for the fiscal years ending March 2022 (FY22) to FY26 are about 1pp (percentage point) a year above our previous estimates between, which could make it more challenging to put debt/GDP on a downward trajectory," Fitch said.

India has exceeded its fiscal deficit target of 3.5 per cent in the current fiscal by a wide margin due to higher spendings to stimulate the economy amid the pandemic. The fiscal deficit – the excess of government expenditure over its revenues – has been pegged at 9.5 per cent of the gross domestic product (GDP) in the current fiscal ending March 31, as per the revised estimate.
For the 2021-22 fiscal, beginning April 1, the deficit has been put at 6.8 per cent of the GDP, which will be further lowered to 4.5 per cent by 2025-26 fiscal ending March 31, 2026.

Fitch said the budget, presented in Parliament on February 1, has the potential to lift growth prospects. Higher expenditure will support the near-term recovery and increased infrastructure spending could boost sustainable medium-term growth rates. Labour market and agricultural reforms that were legislated in September 2020 could also lift medium-term growth.

However, recent adverse court rulings have highlighted implementation challenges to these reforms, and there is a risk that fiscal spending could also fall short of planned levels. Meanwhile, the budget's proposed increases in import tariffs could dampen trade and economic growth, it said. "Although there are implementation risks around aspects of the budget, we regard the government's overall fiscal projections as broadly credible. The budget's higher deficit forecasts are partly driven by positive steps toward greater transparency, as previously off-balance-sheet items, such as loans from the Food Corporation of India, have been brought on budget," Fitch added.

Fitch said the extent to which policy changes address weaknesses in India's financial sector will also influence the country's medium-term growth potential. "We believe the proposed injection of Rs 20,000 crore (USD2.7 billion) of new capital into state banks will be insufficient to alleviate the anticipated incremental stress on capital levels in 2021 and 2022. State banks are likely to continue to experience asset-quality problems, weak profitability and small capital buffers and, as a result, we project credit growth to remain soft in the absence of further government action".

The proposed establishment of an asset reconstruction company and an asset management company to deal with bad banking sector assets should be credit positive, dependent on the details of its structure and implementation.

(Financial Express – 10/02/2021)

INFLATION STAYING ABOVE 6% SEEN AS RISK TO RBI'S INTEREST RATES PATH

India's central bank may have to propose raising interest rates if inflation holds above its target for a third straight quarter, prompting monetary and fiscal policy makers to double down on efforts to keep prices in check, according to a person familiar with the matter.

Headline inflation has stayed above 6% for the past two quarters, and breaching that level during the January-March period would require the Reserve Bank of India to inform the government in writing why its Monetary Policy Committee failed to meet its goal of keeping price-growth within the 2%-6% band mandated by law. The central bank would also be required to suggest remedial action, which in this case would be to raise interest rates to douse price pressures, the person said, asking not to be identified as the deliberations are private. Any rate hike proposed as a remedy risks snuffing out a nascent recovery in Asia's third-largest economy, the person said.

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India's law also requires the RBI to give an "estimate of the time period within which the inflation target shall be achieved" after remedial actions have been put in place. A spokesperson for the RBI wasn't immediately available for a comment. The Ministry of Finance declined to comment.

The RBI kept rates steady last week for a fourth straight meeting to support growth, while separately announcing a plan to sap excess liquidity it had allowed as part of measures to counter the impact of the pandemic. The government of Prime Minister Modi, for its part, has cut custom duties on items like pulses, edible oil and oilseeds to help ease some of the price pressures.

Consumer prices for January are expected to have risen 4.4%, according to the median estimate in a Bloomberg survey before data to be published Friday. That would be the second month within the RBI's range after December's 4.59% increase.

What the amended RBI Act, 1934, says:

- Where the RBI fails to meet the inflation target, it shall set out in a report to the federal government:
- the reasons for failure to achieve the inflation target
- remedial actions proposed to be taken by the Bank; and
- an estimate of the time-period within which the inflation target shall be achieved pursuant to timely implementation of proposed remedial actions

The central bank's inflation expectations survey of households shows price pressures are entrenched. While a sharp drop in vegetable prices during December helped lower inflation expectations of households for the current period and three-month horizon, the one-year ahead inflation expectations were sticky at 10.1%.

"This signals that households feel uncertain about the medium-term inflation outlook and prefer to build in a certain amount of risk perception in their assessment of inflation risks," said Kaushik Das, chief India economist at Deutsche Bank AG in Mumbai. "This is not surprising, as global oil prices are now trading above $60 per barrel and any sustained increase could result in prices of transportation and consequently food prices going up with a lag."

Against this backdrop, a change to the mid-point of the CPI inflation target from 4% to 5%, could lead to inflation expectations going awry, he said.

(Business Standard – 11/02/2021)

-: J I L T A : -

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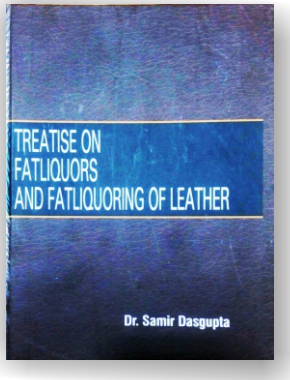

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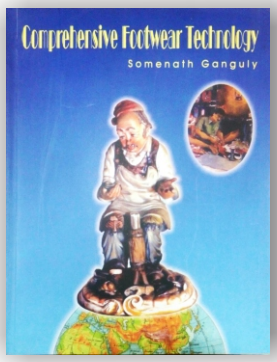

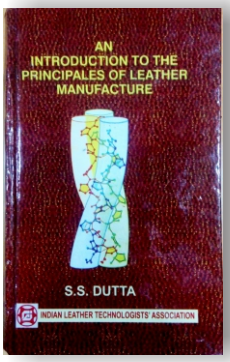

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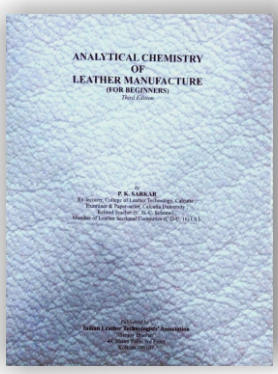

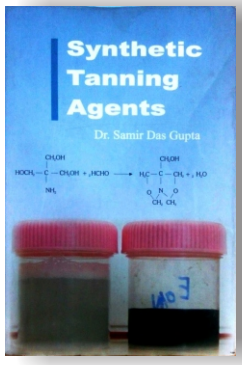

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Author
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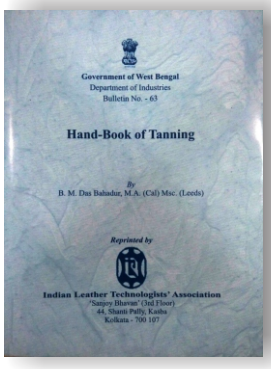

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Registration No. KOL RMS/074/2019-21

History and Activities of Indian Leather Technologists' Association

The Indian Leather Technologists' Association (ILTA) was founded by Late Prof. B. M. Das, the originator of Das-Stiasnay theory and father of Indian Leather Science on 14th August' 1950.

The primary objectives of the oldest Leather Technologists' Association which celebrated its Diamond Jubilee year in the 2010, are :

- To bring all concerned with the broad spectrum of the leather industry under one umbrella.
- To organize seminar, symposium, workshop in order to create information, knowledge and latest development for the benefit of all concerned. To offer a common platform for all to interact with each other in order to understand each other's problems and prospects.
- To publish monthly journal as a supplement to those above objectives. The monthly journal of ILTA is known as journal of Indian Leather Technologists' Association and is the most widely circulated technical journal concerning leather technology.
- To publish text books for the benefit of students at various levels of study, for the researchers and industry.
- To have interface between urban and rural sector.
- To assist Planning Commission, various Government Institutions, Ministry and autonomous bodies to formulate appropriate policies acceptable and adoptable to the industry.
- To organize practical training and to provide skilled manpower and to motivate good students for study.
- To conduct activities related to the growth of the export of leather and leather goods from India.
- As the part of many social activities ILTA has donated Rs. 1 lac to Consul General of Nepal towards relief of earthquake effected of Nepal on 15th Sept, 2015.

INTERNATIONAL & NATIONAL SEMINAR

- ILTA is the Member Society of International Union of Leather Technologists & Chemists Societies (IULTCS), a 115 years old organization and for the first time the IULTCS Congress was organized in January 1999 outside the developed countries in India jointly by ILTA and CLRI.
  2017 IULTCS Congress is scheduled to be held in India again.
- 8th Asian International Conference on Leather Science & Technology (AICLST) was organized by ILTA in 2010 during its' Diamond Jubilee Celebration year.

SEMINAR & SYMPOSIUM

ILTA organizes Seminar & Symposiums on regular basis to share information, knowledge & latest development and interactions for the benefit of all concerned. Few are as under :

- Prof. B. M. Das Memorial Lecture every year during the Foundation Day Celebrations on 14th August every year.
- Sanjoy Sen Memorial Lecture on 14th January every year, the birthday of our late President for several decades.
- Prof. Moni Banerjee Memorial Lecture on 15th March every year, the birthday of this iconic personality.
- Seminar on the occasion of India International Leather Fair (IILF) at Chennai in February every year.

It has also organized :

- Prof. Y. Nayudumma Memorial Lecture.
- Series of Lectures during "Programme on implementing Emerging & Sustainable Technologies (PrIEST)".
- Seminars in occasion of India International Leather Fair, 2014 and 2015 at Chennai etc. Many reputed scientists, industrialists and educationists have delivered these prestigious lectures. Foreign dignitaries during their visits to India have addressed the members of ILTA at various times.

PUBLICATION

ILTA have published the following books :

- An Introduction to the Principles of Physical Testing of Leather by Prof. S. S. Dutta
- Practical Aspects of Manufacture of Upper Leather by J. M. Dey
- An Introduction to the Principles of Leather Manufacture by Prof. S. S. dutta
- Analytical Chemistry of Leather Manufacture by P. K. Sarkar
- Comprehensive Footwear Technology by Mr. Somnath Ganguly
- Treatise on Fatliquors and Fatliquoring of Leather by Dr. Samir Dasgupta
- Synthetic Tanning Agents by Dr. Samir Dasgupta
- Hand Book of Tanning by Prof. B. M. Das

ILTA has a good Library & Archive enriched with a few important Books, Periodicals, Journals etc.

AWARDS OF EXCELLENCE

- ILTA awards Prof. B. M. Das Memorial, Sanjoy Sen Memorial, J. M. Dey Memorial and Moni Banerjee Memorial Medals to the top rankers at the University / Technical Institute graduate and post graduate levels to encourage the brilliants to evolve with the Industry.
- J. Sinha Roy Memorial Award for the author of the best contribution for the entire year published in the monthly journal of the Indian Leather Technologists' Association (JILTA).

LEXPOs

To promote and provide marketing facilities, to keep pace with the latest design and technology, to have better interaction with the domestic buyers, ILTA has been organizing LEXPO fairs at Kolkata from 1977, Siliguri from 1992 and Durgapur from 2010. To help the tiny, cottage and small-scale sectors industries in marketing, LEXPO fairs give the exposure for their products. Apart from Kolkata, Siliguri & Durgapur, ILTA has organized LEXPO at Bhubaneswar, Gangtok, Guwahati, Jamshedpur and Ranchi.

MEMBERS

The Association's present (as on 31.03.2018) strength of members is more than 600 from all over India and abroad. Primarily the members are leather technologists passed out from Govt. College of Engineering & Leather Technology, Anna University, Chennai, Harcourt Butler Technological Institute, Kanpur, B. R. Ambedkar National Institute of Technology, Jalandhar and Scientists from Central Leather Research Institute.

ESTABLISHMENTS

In order to strengthen its activities, ILTA have constructed its own six storied building at 44, Shanti Pally, Kasba, Kolkata – 700 107 and have named it "Sanjoy Bhavan".
This Association is managed by an Executive Committee duly elected by the members of the Association. It is absolutely a voluntary organization working for the betterment of the Leather Industry. None of the Executive Committee members gets any remuneration for the services rendered but they get the satisfaction of being a part of this esteemed organization.

ILTA
Since 1950

Indian Leather Technologists' Association
[A Member Society of International Union of Leather Technologists' and Chemists Societies]

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