

Impact of COVID-19 on International Silk Industry and Consumer Market Trends

International Silk Union Secretariat

April 29, 2020 Hangzhou China

For the silk industry, every crisis is also a turning point, which can accelerate the innovative development and transformation. In 1845, the pebrine disease of *Bombyx mori* first broke out in Vacluse, France, and then spread all over the world. It brought a devastating blow to the production in major sericulture countries and regions like Europe, Japan and China. Under the effort of well-known microbiologist Louis Pasteur and other scientists, they used the selection method to control microbial infections, the hazard rate of silkworm disease in most sericulture countries reduced from 20% in the mid-19th century to the level of 1%, which renewed confidence in the silk industry. The silk industry in France, China, Japan, India and other countries achieved sustainable development.

The COVID-19 has been fierce since early 2020, international silk industry and consumer market have been severely hit. China, Italy, France, Brazil and other major silk producers/consumers have been severely affected by the epidemic. Enterprises in various countries faced more difficulties in epidemic prevention, resumption of work, orders, and markets, both the upstream and downstream industries of silk are facing a serious crisis. However, the outbreak of COVID-19 also prompts changes in the silk marketing channels and consumption patterns. Many companies combine the Internet and new technologies to innovate and develop, transform and upgrade to adapt to market changes, fighting the economic crisis brought about by the epidemic.

In order to fully understand the impact of COVID-19 on the international silk industry, study the future trends of the silk industry and consumption, from March 11

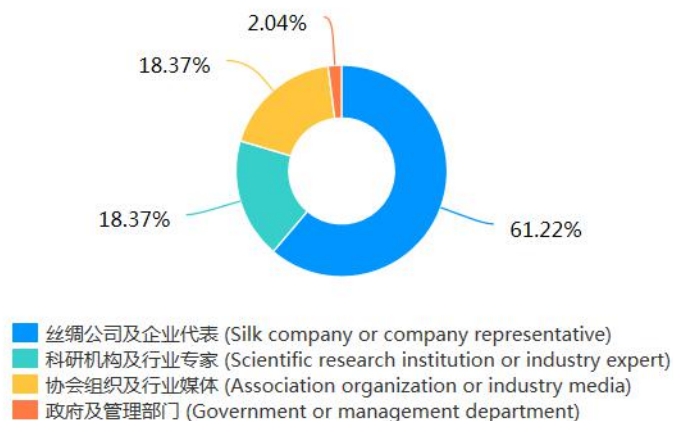
to April 10, 2020, International Silk Union(ISU) launched the research of *Impact of COVID-19 on International Silk Industry and Consumer Market Trends*. The questionnaire covers the basic information of the enterprise, and the impact of COVID-19 on the enterprise and international silk industry. With the support and participation of ISU member units and the industrial organizations, enterprises and research institutions of various silk production/consumption countries, more than 40 silk-related units and 30 silk industry experts from China, Italy, Japan, Brazil, India, Thailand, Vietnam, Cambodia, Laos and Indonesia participated in the survey. Through the analysis and summary of the silk production/consumption data, response measures, and expert opinions of participating countries and regions, this research report is formed, hoping to provide suggestions and reference for relevant government departments, industry associations and business operators.

1. Impact of COVID-19 on the international silk industry

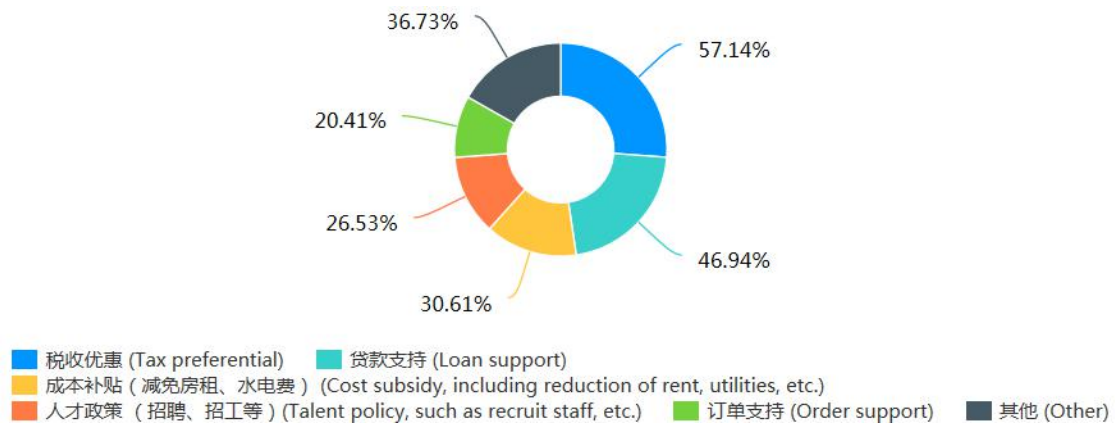
Q: What changes do you think the COVID-19 will bring to the international silk industry and consumer market? What companies should do to resume production and increase sales? What governments and industry associations should do to strengthen the safeguards and provide support? What measures the companies should strengthen to response the epidemic?

This report summarizes the experts opinions from some countries and regions. For details, see **Annex 1**.

Q: What is your identity

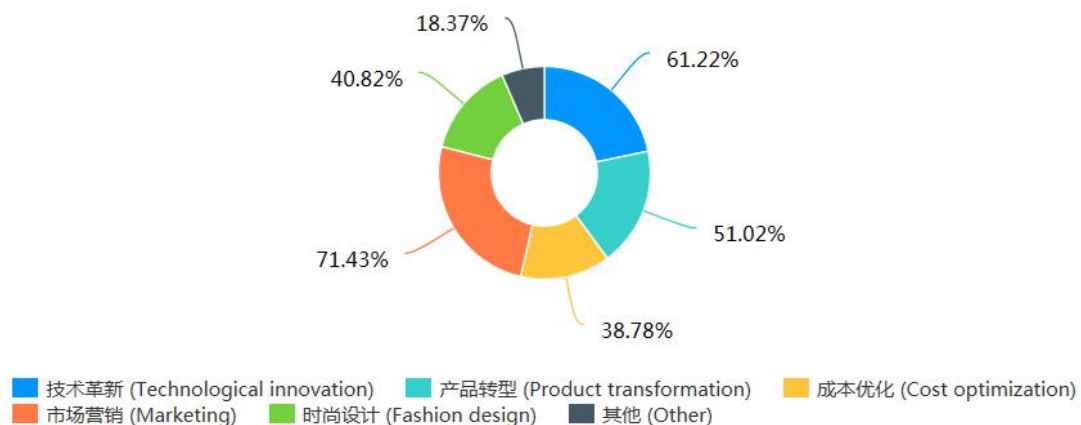


Q: In response to the COVID-19, what support has your country and city provided for silk enterprises



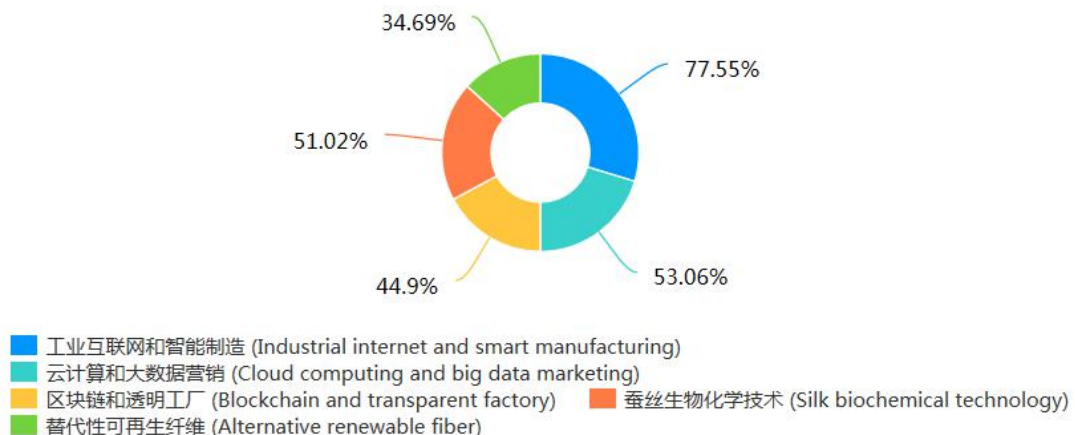
Concerning the answer “other”, many experts from Brazil, India, Thailand, and Laos stated that the local government did not provide relevant support before the submission of the questionnaire.

Q: In response to the COVID-19, what measures do you think are the top priorities for silk enterprises



Concerning the answer “other”, some experts expressed that the **production reduce** and **price stable** are the top priorities for silk enterprises.

Q: In the future development of the silk industry, which of the following new technologies should actively absorb and adopt



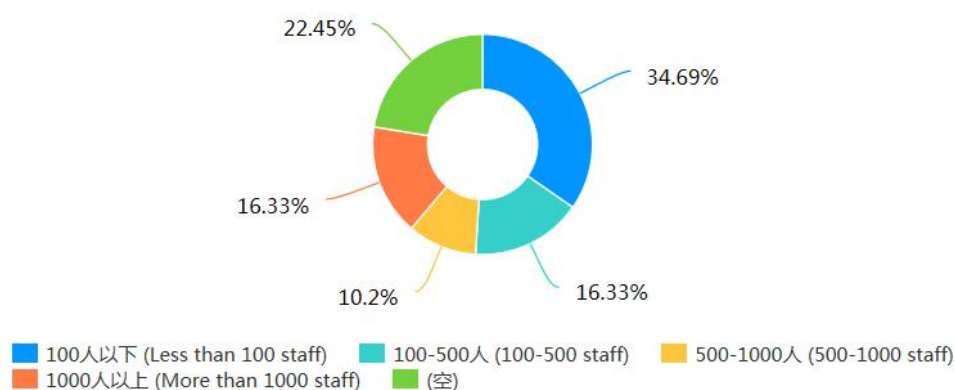
2. Basic information of the enterprise or unit

Q: Business scope

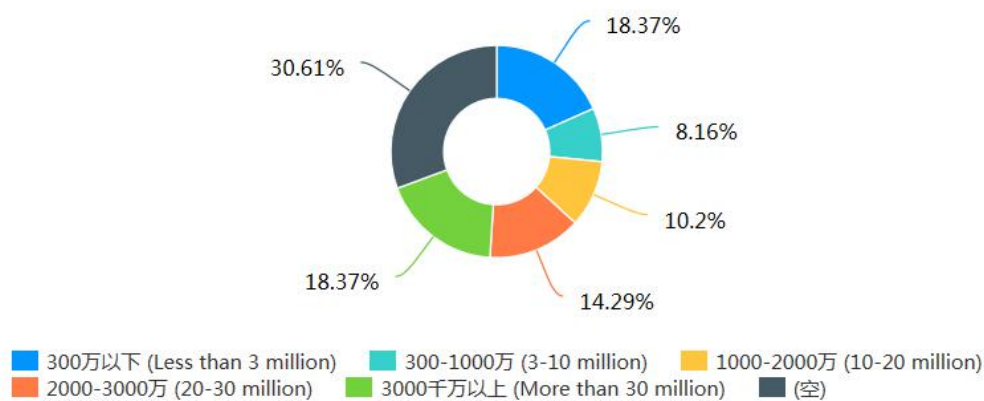


"空" in the diagram means that some scientific research institutions, industry associations and units are not involved in production and trade, and have not answered this question. It also has the same meaning in the following diagram.

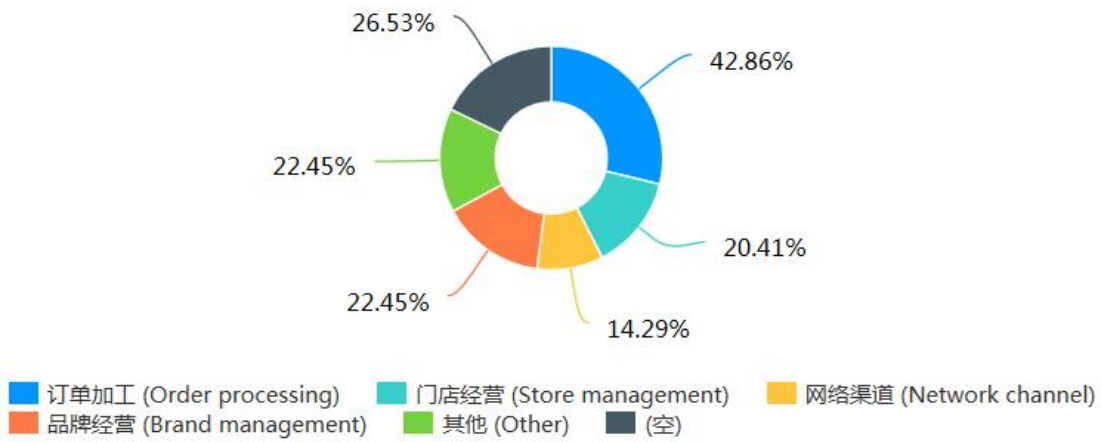
Q: Enterprise scale



Q: Annual operating income in 2019 (USD)

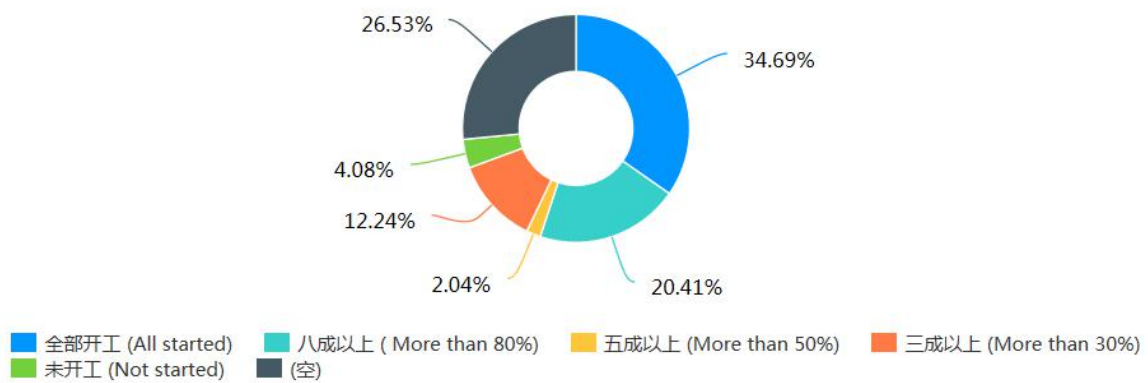


Q: Enterprise' main distribution model

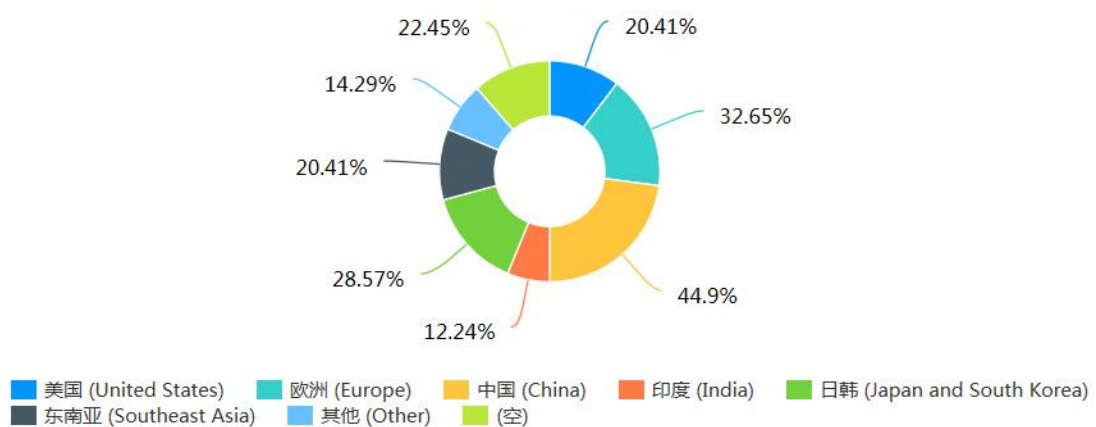


3. Impact of COVID-19 on enterprises

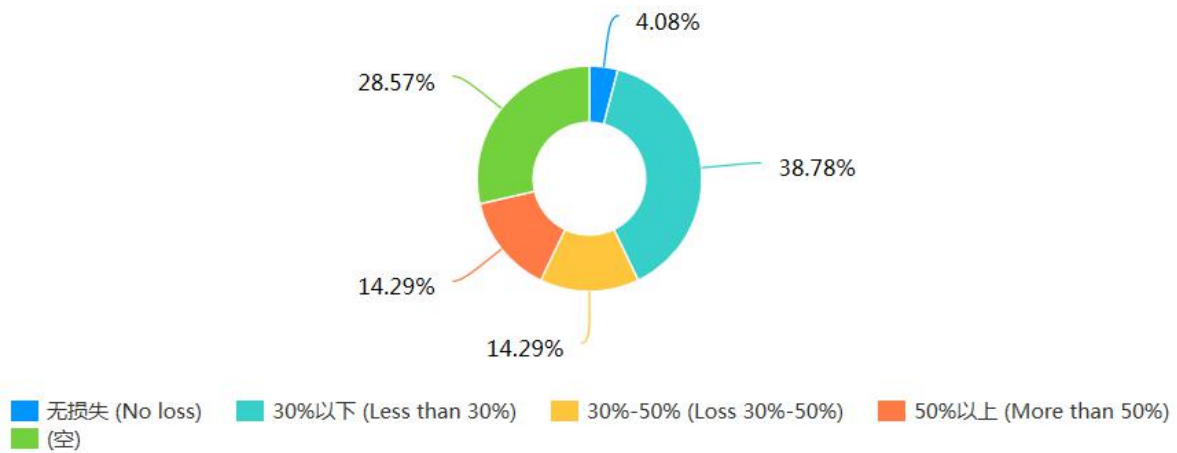
Q: Up to now, the situation of business start-up



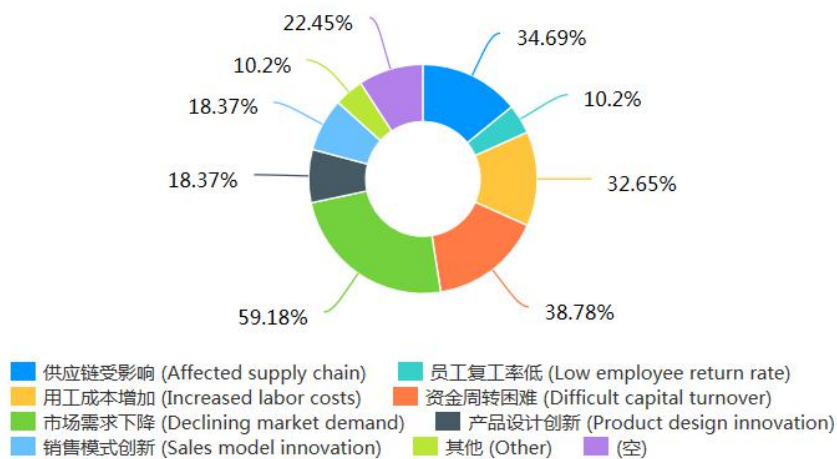
Q: Enterprise orders source or the major services regions



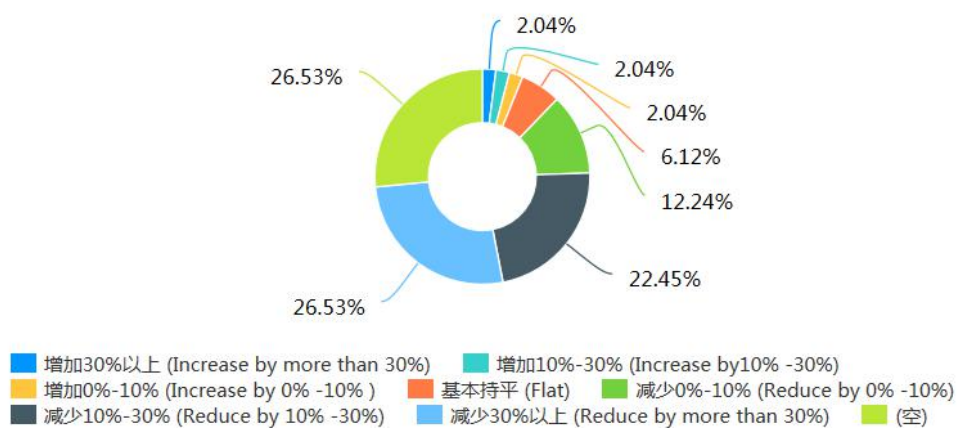
Q: Enterprise's expected lose of production and operations in 2020 because of COVID-19



Q: Enterprise's current major difficulties



Q: Enterprise's predict on operating income in 2020 compared to the previous year



Conclusion and suggestions

The global epidemic has continued to deteriorate, international silk industry has been severely affected from production to trade. Offline consumption is still frozen, the development of industries and enterprises are facing difficulties. The silk industry/enterprises in various countries have responded actively through transformation and upgrading, reform and innovation. Government departments and industry experts have actively planned the countermeasures. The main situation and related suggestions are as follows:

(1) Governments and industry organizations of various countries help enterprises actively respond to the crisis.

The survey shows that the epidemic has a significant impact on silk enterprises. According to the survey, 39% of the enterprises have difficulties in capital turnover. 35% of the enterprises' supply chain are affected, and 33% of the enterprises have higher labor costs. The policy support of various countries is mainly reflected in the taxes and loans, and a series of support policies have gradually been introduced in social security, water and electricity, rent, and talent. Among them, in order to ease the pressure on enterprises, the National Cocoon and Silk Coordination Office issued the "*Notice on the Further Work of Cocoon and Silk Industry Development*" to stabilize cocoon production, focus on poverty alleviation, and encourage "consumption replenishment"; Italian government reinforce temporary lay off funds; Vietnamese government pay three months basic salary for who can not work because of epidemic; Silk industry organizations of various countries have fully exerted their functions as platforms in up and down, docked with enterprises, and helped the government to implement the accurate policies. Industry experts believe that: the end of the epidemic is unclear, silk enterprises should make full use of the current policy support, actively apply for low-interest loans, reduce foreign investment, optimize the internal structure of the enterprise, rationally control production costs and expenditures, avoiding difficult capital turnover or broken capital chains.

(2) Global raw silk price falls sharply, and the voice of raw silk storage is increasing.

According to the raw silk index of China Cocoon and Silk Exchange, as of April 21, 2020, the price of grade 3A raw silk fell from RMB 380,000 per ton at the beginning of the year to RMB 246,000 per ton, a drop of over 35%. According to Vietnam Sericulture Association, cocoon prices drop 50% compared with that before COVID-19. The global price of raw silk continues to fall, fabric manufacturers are facing a shortage of orders, unable to continue production, and the reeling enterprises' inventory increases, which will inevitably affect the upcoming cocoon market and farmers' enthusiasm. In Liuzhou and other places in Guangxi, China, the price of the first batch of spring silkworm cocoons dropped by nearly 50% compared with last autumn. Italy, China, India and other countries state that stabilizing silk prices is a top priority. China, as the wind vane of silk price, many enterprises and organizations call on the National Cocoon and Silk Coordination Office to start collecting and storing national reserve silk as soon as possible, and expected that the leading enterprises with sufficient cash flow could purchase raw silk in a timely manner and increase their inventories, responding the turbulence of silk price.

(3) Global economic situation is severe, silk enterprises face the order and business crisis.

The epidemic causes a disruption in global supply chains and blocks the trade. 1/3 of the interviewed enterprises indicate that the expected lose of production and operations due to the epidemic in 2020 is more than 30%, and annual operating income is expected to decline by more than 30%. Orders from Europe, the United States, Japan and South Korea are mostly delayed or canceled, the enterprises are actively accepting orders from Southeast Asia and Africa, or domestic digestion. In addition, some silk enterprises in China, Cambodia, Laos and other countries mainly focus on industrial tourism, family farm experience, and traditional handicraft display. The impact of the epidemic on the tourism industry directly triggers the bankruptcy crisis of related enterprises. In response to the business crisis caused by the epidemic, Chinese enterprises have adopted measures such as "Four days work and three days off", "Shift holiday" and "Downgrade salary", etc. Italian companies

encourage staff to work at home.

(4) Silk enterprises are actively transforming and developing to revitalize market demand.

Silk is a traditional industry, and silk products belong to enjoyable consumption that improves the quality of life. The recovery of silk consumption will also be the slowest of all affected industries, experts believe that the traditional production/trade enterprises are in urgent need of transformation and upgrading.

Production: Actively adopt information management, achieve rapid response from upstream to downstream of the supply chain and reduce inventory;

Trade: Establish long-term and stable domestic and foreign trade partners, expand cooperation areas, and enhance anti-risk capabilities;

Products: Improve products quality, strengthen innovation, research and development. Focus on the development of silk products for medical protection, sanitation and health, such as silk masks, silk home textiles, etc;

Sales: Relying on the internet, make full use of the sustainable fashion concept of silk, and explore the path of "Internet + Traditional industries", attracting young consumers.

(5) Experts call on the industry to build confidence and work together to fight the epidemic.

The global epidemic crisis sees no turning point, which seriously affects the sustainable development of silk industry. Industry experts call for the global silk industry to establish strong confidence, find opportunities in challenges, innovate traditional models, standardize operation management, expand sales channels, and enhance brand concept, promoting the response mechanism of the market. Facing the uncertainty of the current market, the industry should be united, strengthen cooperation, fight against the epidemic, and stabilize the production and trade.

Annex 1: Selected Experts Opinion

Q: What changes do you think the COVID-19 will bring to the international silk industry and consumer market? What companies should do to resume production and increase sales? What governments and industry associations should do to strengthen the safeguards and provide support? What measures the companies should strengthen to response the epidemic?

CHINA

Yu Yuenan

Vice president of China Textile Commerce Association(CTCA)

President of Silk Professional Committee of CTCA

Silk domestic trade enterprise losses are relatively small, during the epidemic, it was the off-season of silk sales. The main losses came from rents and employee salaries. The loss of above-scale domestic trade enterprises is expected to be 200 million yuan. In the future, the main challenge faced by domestic trade enterprises is that overall consumption will be suppressed, which will affect the sales of silk. The annual sales are expected to fall by more than 10%. Silk is a luxury item in textile products, not a necessity of daily life. The overall consumption shrinkage will affect silk consumption. The scale of silk domestic trade enterprises is relatively small. Most traditional enterprises have relatively low capital leverage ratio and strong anti-risk ability. It is expected that the epidemic will not lead to a large-scale closure of silk domestic trade companies.

With the large-scale outbreak of international epidemic, Chinese population turnover recovery is fully delayed, which has affected the restoration of consumption. The losses of silk enterprises in domestic trade production and sales are expanding. Shrinking the enterprises expansion and opening up online sales will become an important strategy for silk domestic trade enterprises this year to reduce losses and overcome difficulties.

Chen Xiangping

President of Sichuan Silk Association

Honorary president of Sichuan Academy of Silk Sciences

Vice chairman of International Silk Union

Committee member of International Silk Union Education Research Professional Committee

What changes do you think the COVID-19 will bring to the world silk industry and consumer market?

1. Promote the accelerated transformation of the silk industry into a modern industry, and promote the industry's development of medical protection and health products.

2. The sales model will be upgraded to digitalization and networking, the sales channels will accelerate the expansion of online stores, the service methods will rapidly change to new service industries such as customization, and the logistics methods will become more social and convenient.

What companies should do to resume production and increase sales?

1. Make full use of the preferential policies issued by governments at all levels for SMEs to respond to the epidemic.

2. Pay attention to the progress of epidemics abroad and arrange production and orders reasonably.

3. Actively connect with large logistics platforms to solve problems such as raw materials and products transportation.

4. Adjust product structure to produce marketable and high value-added products.

What governments and industry associations should do to strengthen the safeguards and provide support?

Governments: Under the premise of ensuring epidemic prevention, relax the logistics restrictions of enterprises and restore the production order as soon as possible; Preferential policies and measures should be operable; And issue related policies or measures to stimulate domestic consumption.

Industry Associations: First, guide members in scientific prevention and control, and do a good job in internal management and situation reporting; Second, classify and assist enterprises to solve problems such as material security, logistics transportation, and supply of production materials; Third, do a good job of guiding public opinion and reporting information, enhance the confidence and determination of enterprises to win the epidemic battle and achieve sustainable

and stable economic development, strengthen communication with the industry authorities, and reflect the demands of enterprises in a timely manner.

What measures the companies should strengthen to response the epidemic?

1. Strengthen internal management and comprehensively improve the level of management informatization.
2. Expand sales channels and innovate sales models.
3. Improve equipment level and labor productivity.
4. Improve product and service quality

Fei Jianming

Honorary secretary-general of ISU

Honorary president of Hangzhou Oriental Silk Culture and Brand Research Center

International Silk Union launched the research of “Impact of COVID-19 on World Silk Industry and Consumer Market Trends”, it's the first time in international silk industry, and it will certainly beneficial to the interaction, interconnection, collaboration, and overcome difficulties.

Three months after the COVID-19 raged in China, it has been controlled and slowly calming down. But the epidemic has begun to spread around the world, and Japan, South Korea, Italy, Iran, France, Spain, and the United States have fallen. The COVID-19 is unavoidable in the world. Almost none of the world's major producing and consuming countries are spared. In the past two weeks, US stock has plunged, and the European stock has also suffered a severe setback. The crisis in the world economy will surely far exceed the financial crisis in 1997 and 2008. Therefore, my colleagues in the silk industry must take precautions and be fully prepared.

My basic judgments and suggestions are as follows:

1. Affected by the spread of COVID-19, the demand and sales of world silk products will decline substantially in 2020. The main reasons are production standstill, industrial chain disruption, consumption drop, and weak customer willingness to place orders, etc. Whenever a major disaster has passed, there are two types of industries that recover fastest. One is national key projects. Often, one project creates more GDP than a small industry. Another is the industry related to the national economy and people's livelihood with the indispensable commodity in people's lives. However, silk is not listed, so the recovery process will be slow.
2. Most Chinese silk enterprises have begun to resume production, but they should keep in

mind to set production based on sales. If the company has the orders in hand, it should be quickly produce and deliver. Notes that we must not blindly produce, silk products have high value and large capital consumption. A large amount of inventory may cause overwhelmed by the flow of funds, not the epidemic.

3. Silk companies can choose to partially switch production to maintain cash flow. Some silk clothing companies in China have switched to producing masks and protective clothing. This is a very good way of survival and can also contribute to the conquest of the epidemic. As the epidemic spreads globally, with the approval of the government for production, qualified masks and protective clothing will be the commodities exported by foreign trade this year, and silk companies can do a lot.

4. Silk companies urgently need to change their marketing methods. Silk companies generally rely on offline sales, and few companies have online exceeding offline. Therefore, silk companies must take this crisis and make a big determination to make a fundamental change. This is not only the way to survive in a crisis, but also for traditional industries to transition to modern industries.

5. Silk enterprises should control the cost strictly than ever before. In difficult times, enterprises must reduce all unnecessary expenses, strictly control the purchase price of raw materials, strictly control the quality, reduce quality costs, and control the total wages of enterprises. Increase income and decrease expenditure, living within the means, every penny you save may help your company persist to the spring.

We should make the worst assessment, try the greatest efforts, and strive for the best results under the impact of COVID-19 on world silk industry and consumer market trends. Come on!

Wang Xiaohui

President of Chongqing Cocoon and Silk Industry Association

President of Chongqing Wintus New Star Enterprises Group

If the government's policies for enterprises cannot be implemented, then the role of the government is minimal. Faced with the market, the enterprise should help by themselves. Enterprises should strengthen product category docking, multi-party communication, and develop innovative cascading prices products and customer groups that are suitable for multiple regions, multiple levels, multiple attributes. In view of the medical products market that is now peaking, we

believe that: first, it is minority; second, it is no price; third, it is no consumption value; last, it has the time and space restrictions. so, It is impossible to form a new round of peak of silk consumption. In response to the current changing epidemic in the world, what enterprises should do is to survive effectively, reduce investment expansion, or even not invest. Only in this way can we have next year and future. After losing this year, we can't take it in next year. It 's better to be painful sobriety than to be emotional and face-saving.

Zheng Jinhuan

President of Journal of Silk, Zhejiang Sci-Tech University

At present, the COVID-19 is under initial control in China, but the overseas epidemic situation continues to spread. The silk industry has suffered a sharp decline in foreign trade exports on the basis of the early impact of domestic shutdowns. The industry development is facing huge challenges.

1. Silk companies need to actively resume production, analyze and find new consumer demand, adjust product structure, and focus on tapping and nurturing domestic market demand. As the domestic epidemic subsides, the consumption of Chinese residents will gradually become active, and even rebound consumption may occur. Enterprises should pay close attention to the domestic market and the multi-level consumer demand of domestic residents;

2. Pay more attention to scientific and technological innovation, focus on the bottleneck problems in the design and research of new technology, new technology, new products, and transformation and upgrading, including the development of silk protection products and multi-functional silk fabrics in response to the epidemic and other infectious diseases. Industry, academia and research cooperate closely to further speed up the development and marketization of new technologies, improve internal skills, improve the competitiveness of silk products, and prepare for the recovery of the international market in the future;

3. Vigorously cultivate and strengthen online marketing. In the future, online consumption will be the main choice for young consumers. How to make the comprehensive and multi-level scenario between silk products and consumers to reach a more efficient marketing model is worth paying attention;

4. It is hoped that the government will introduce relevant measures to further increase financial support for the silk industry on the basis of implementing measures such as national tax

support and financing convenience to help the silk industry to successfully pass this special difficult period. In addition, it is also hoped that industry associations, related universities, research institutes, and industry periodicals will provide silk enterprises with more timely information, technical services, and technological support.

Zhong Bingzhang

Curator of Chengdu Shu Brocade Embroidery Museum

Executive director of Chengdu Shujiang Jinyuan Embroidery Co., Ltd.

The company's non-legacy industry (Shu brocade weaving skills) is a traditional industry, similar to Nanjing brocade, Song brocade, Zhuang brocade and so on. One of its important duties is the inheritance and protection of skills. In terms of product attributes, it can be included in both non-legacy and handicrafts, most of them cannot be mass-produced, such as hand-brocade, hand-embroidered, etc., so the scale and production capacity are small. Most are small and micro enterprises and the workshop-style production in front of shop and factory behind, low innovation ability and traditional sales model are the current status of the industry.

COVID-19 will have a huge impact on the Chinese economy, especially the Chinese consumer market will be severely blocked in the short term. People will focus on rigid demand for a long period of time, and high-end consumption represented by silk and brocade will shrink sharply, especially in terms of exports.

Enterprises have to change their sales model. Firstly, reconstruction of consumer relations under the internet environment. The premise of this reconstruction is to have a brand, a certain production scale and a more stringent product quality control system. Secondly, product sales and innovation model changes. Utilizing the cultural endorsement of the long history of traditional products, cross-industry cooperation, expand the brand awareness under the premise of gaining benefits, achieve a win-win situation. Thirdly, expand the scope of product services. Carry out online standardized customization + offline personalized customization business, and dig deeper into subdivided demand markets.

It is hoped that the government will increase its efforts in the protection and inheritance of non-heritage culture and give preference to policies and funds.

Li Qizheng

Secretary-general of International Silk Union

Associate editor of Journal of Silk

Director of Hangzhou Oriental Silk Culture and Brand Research Center

The social and economic impact of COVID-19 is just the beginning. At present, we can see that the silk consumption market has entered a frozen period because of the economic frustration, purchase power drop, traffic and trade stall.

At the same time, we also see that the domestic epidemic situation in China has been effectively controlled, and silk enterprises are actively seeking countermeasures. As silk belong to textile, some silk companies have the ability to produce and process civilian masks and protective textiles.

Enterprises such as Cathaya, Wensli and High Fashion have adjusted their production priorities. On the one hand, it eases social needs, and on the other hand, it creates new economic growth points for companies to survive the crisis.

Silk is a traditional industry with a long history, which has a strong vitality. The epidemic has also accelerated the transformation of the era. In the Cloud Time and House Time, people's pursuit of comfort life is bound to strengthen.

As we all know, silk is the textile fabric with the best affinity to human skin, but it is expensive and hard to handle, which is an important reason for many young consumers to hold back. According to the understanding of relevant silk sales enterprises, the following types of silk products have the advantages of growth:

1. Heavy weight (over 20 m/m) silk home textile;
2. Washable silk protective mask;
3. Knitted / elastic home silk pajamas;
4. Technological silk biological products (Silk fibroin mask, sericin skin care products, etc.);
5. Development and utilization of low-carbon environmentally friendly renewable silk fabrics.

For professional research institutions and media in the industry, it is necessary to strengthen the research, popularization and publicity on the functionality and comfort of silk products.

For the government and relevant management departments, it is necessary to strengthen management and market supervision, fight against phenomenon of false label, adulteration and fake products. We believe that with the joint efforts of many parties, the silk industry will overcome difficulties and embrace the new era.

Chen Zhangren

General manager of Hangzhou Fuqiang Silk Co., Ltd.

The COVID-19 is force majeure, and its impact on SMEs business is inevitable. The sudden outbreak brought operational difficulties to the silk industry, including reduced orders, increased costs, a shortage of funds, reduced sales, reduced customer communication, and failure to properly function product development, and the company's losses in the first half of the year will increase. Facing difficulties, enterprises need to establish sufficient confidence, firmly believe that there are always more ways than difficulties, take the initiative to adjust product structure, actively expand the market, continue to develop new varieties, and do everything possible to communicate with customers, strive for more orders. It is necessary to continuously strengthen management, especially to stabilize the workforce, enhance corporate cohesion, and jointly overcome difficulties.

Zhang Zuqin

Executive vice president and secretary-general of Hangzhou Silk Industry Association

The epidemic will make the industry or enterprises to think. Some parts of Hangzhou rely on silk brands or businesses that rely more on urban tourism. This epidemic has the most serious impact. We can use short videos and live broadcasts to transform the consumer market. Production enterprises will closely follow the changes in the situation this time and bear social responsibilities. While ensuring the supply of epidemic prevention materials, there are also new ideas for the development of new functional products.

The policy response and landing speed of Hangzhou municipal government is very fast, the association actively cooperates to make a good bridge and play a role in up and down. Although offline activities cannot be carried out in the near future, information services and corporate resumption support can be provided online. At the same time, do a good job of screening and try not to burden the enterprise.

Li Jinzhou

Director of chartered media of CCTV

1. Companies that value brands will get new opportunities, forcing companies to value various media communication combinations. The market segment with accurate personalized positioning will get great development.

2. The first task of companies in restoring production is to ensure safety, while doing good quality, we must also pay attention to publicity and brand communication. In addition to traditional offline sales methods, increase online sales channels is needed. Channels alone are not enough. Now the silk industry is also a buyer's market. The wine is also afraid of deep alleys, and it needs to propaganda if it is good. Relying on authoritative media to show the excellent quality of the company may be a shortcut.

3. The government can help at the level of taxes, financial, talents, and product promotion. The association can open up some online communication opportunities. After the epidemic, it can do some domestic and international exchange activities.

4. For large enterprises, it is the best time to expand the upstream and downstream industrial chains. For SMEs: 1) Open up new paths, ensure quality, focus on publicity, and find a way out; 2) If there is no core competitiveness, then look for industry peers to hug and warm up. Regardless of the size of the enterprise, according to their actual situation, pay attention to the corresponding matching publicity methods to make the enterprise even more powerful. For example, large enterprises can use CCTV's authoritative columns for a comprehensive interpretation, but of course they also need to meet the broadcast standards. Small businesses can use self-media.

ITALY

Guido Tettamanti

Secretary-general of Italian Silk Office

COVID-19 is similar to an earthquake, in this moment everything is very confused and we may only wait for the decline of the epidemic. Our Government is taking its actions, as the days go by, they are becoming more and more similar to the Chinese ones.

The day we shall come out of this turmoil, it will be important to sit down and to try to define common strategies for our beloved silk. Our fiber suffers from various problems, we hope that this terrible crisis will convince us to work seriously on them.

Emilia Simoncini

Asia purchasing manager of Ratti Spa

1. COVID-19 epidemic has and will shift consumers' priorities towards other needs.
2. There is still a huge uncertainty about the future which, together with the bad impact on economy (worldwide), so it is difficult which companies could increase sales. Unfortunately I am afraid that lots of traditional companies will face big difficulties.
3. Companies can provide their workers and employees with protective masks, enhance smart-working from home, thus avoiding too many contacts among employees; check temperature before entering the company and, get more info from hospitals on how to better check their own employees and workers' health status.

Daniele Furlan

CEO of High Fashion Europa Srl

The future is for the quick reactive campaign, able to adapt to the update demand from the market. Understanding, listening and quick action will be the key.

Stefano Vitali

CEO of Tessitura F.lli Vitali Spa

It is very difficult to make any forecast in this moment, first of all we must come out of this turmoil. Unfortunately in 2020 we know silk consumption will reach its lowest point probably, since the Second World War. We must be aware of this. At the appropriate time, it will be very important to define proper silk policies for image, sustainability, quality, reliability of our beloved fiber. And the attitude of Chinese authorities, as the leading country for silk, will be decisive.

BRAZIL

Member unit from Brazil

COVID-19 is decreasing the speed of production and consumption of all industries and all over the world. This sudden decrease will create the environment to enhance the concept of Circular Economy that enables economic growth detached from consumption of natural resources. On fashion the necessity of sustainability was pointing out to the necessity of consumption decrease on medium and long term and big retailers such as H&M and Zara were adapting

themselves to it. COVID-19 will make it necessary that this changes would happen in short term. Silk industry has lots to contribute with Circular Economy and it would be great to have silk as a protagonist of a “post COVID-19 sustainable fashion concept” where products are designed, produced and used to last longer.

Julia Baruque Ramos

Associate Professor of University of São Paulo

To study the inclusion into the fibroin of new antibacterial and antiviral properties or to study new finishes in order to attain these properties.

INDIA

Sharvan Gupta

Chairman of Kailpar Engineering Co., Ltd.

As per current global situation it's tough & wait for virus settled & demand picks up. If prices goes down too much then demand will not be there but industry peoples loose more. We had seen same recently. So I feel price stability is more important now which is a tough subject. Silk industry research of different category of fabric is going down day by day due to poor margins. If research people concentrate on silk blended fabric with some innovation of color observance more as in polyester fabrics or something price affordability to add middle class customers to use it then demand should be created.

V. Shyam kumar

Professor and researcher of Karnatak University

As COVID-19 has transformed into a global pandemic, safety of individuals working in the field has become primary concern. As sericulture is a labour intensive industry which involves human intervention in each step of silk production to processing and sales. In my opinion safety precautions and educating the workers in industries about the virus infection is most essential.

The government should support the industries by providing tax benefits to cope up with the decreased production

The companies should show compassion and strengthen and support the workers and ensure them safe environment for working in silk industries.

Dilip Barooah

Managing director of Fabric Plus Pvt. Ltd.

1. Consumer market is likely to shift towards sustainable silk
2. Focus more on sustainable manufacturing
3. Restructure export-import policy
4. Be positive, this too shall get over

THAILAND

Piyanut Jingjit

Assistant professor of Rajamangala University of Technology Thanyaburi

The crisis of COVID-19 has widely and hardly impacted to national and world economy. The economic of many nations have turn downward sharply, which made people cut down the spending for luxury goods. Silk and silk products are among the luxury goods that consumers would definitely postponed their purchase.

To increase the sale of silk products during this crisis would be toward medical care products.

The government could support the industry by reduce tax and vat for the whole pipeline of the silk productions.

During this epidemic, companies should slow down the production of luxury product and turn to focus on research and development of silk for health care and medical use.

VIETNAM

Dang Vinh Tho

President of Vietnam Sericulture Association

In order to help the companies and the workers, the Government of Vietnam worked out many policies to support:

1. Delay/postponed land rentals, VAT tax.
2. Loan with low rate and extend the due date of loan.
3. 3 months basic salary for who no work because of Covid-19.

In sericulture, the seriously impacted on farmers and companies:

1. Cocoon prices drop 50% compared with before Covid-19.
2. Cocoons can not be exported.

Kai Tran

Assistant to Chairman of Hoi An Silk Village

Changes: Customer's consumption will go down due to their financial affect during the epidemic. The supply chain is broken due to many countries being affected, they stop export/import process. During the quarantine period, human resource is stopped, the whole process is on pending state.

Company does: Focus on customer basic needs, what they really need after the epidemic would be over, since customer start to save money, it will take time for customer financial recovery.

Price: Reasonable price.

CAMBODIA

Seng Takakneary

Founder and managing director of SentoSaSilk

At the moment, people will prioritize about their life and spend money to save their life. What we need to produce at this point is something to increase the immune system, germs repellent products, and suits to protect the users from germs. At this point, no one wants to leave the house...therefore maybe fashionable indoor dresses will be fine. Create a fashion face mask that goes with the dress, and etc., Market silk as germs repellent.

PAV Eang Khoing

Silk production director of Artisans Angkor Co., Ltd.

1. Face to difficulty in tourist market. so business will be resume
2. Due to this situation it very hard to decide base on economic crisis so it can be resume the scope of business (production) push more sale activity.
3. Need help to support of promotion, Market, Connection, Loan, technical service.
4. Educate all the staff to understanding them about the virus and its epidemic and also provide face mask and Alcohol for clean their hand.

Simheang Tex

Founder of KeiMeas Handicrafts

I think it time to promote silk to the world that we should use silk to make our clothes better than polyester fabric because we have to save the world environment and help us to protect our skin more healthy. In Cambodia use silk fabric to design traditional dress for join the wedding party and some big events. A lot Cambodia people don't know about silk useful they just use for their high show and life style. But now as I am a cloths designer I prefer to promote silk products and clothes to the market by I using silk to make my own clothes and let people know and asked me about my clothes. But we also hope that our government will support our business innovation and help to promote our products to the market too.

LAOS

Noynith Chanthamith

General manager of Lao Sericulture Co., Ltd.

In case of Mulberries our main customer is tourist who visiting Laos. In this situation not many foreigner coming to visit, Laos selling consumption dropped a lot. We now try to promote online market For the government side, it would be great if the government could have some promotion subsidies for domestic market and oversea online market or tax reduction.

INDONESIA

Kunjaya Putera Wijoyo

Chairman and general manager of PT. Sutra Alam Nusantara

The sericulture in Indonesia has just started. Due to the large area of mulberry trees planted and the fertile land in Indonesia, it will surely become the largest production base of sericulture and raw silk in Southeast Asia. At present, we are in the development stage, only a small amount of silk cocoons are produced, and there are not related to production and sales. Facing COVID-19, our development slowed down. If we can plant mulberry trees and raise silkworms as scheduled, there will be better development. Currently it can only be determined based on the Chinese market.