



THE SILK INDUSTRY: INDIA'S ROLE IN THE GLOBAL LANDSCAPE AND FINANCIAL DECISION-MAKING DYNAMICS

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ABSTRACT

Silk industry is involved with this breeding of silk worms and manufacturer of the silk. India is the second largest producer of silk contributing to about 18% to the world production. What is however more not worthy is the fact that India is requirement of raw silk is much higher than it's current production and present. It has a strong traditional and culture bound domestic market of silk. About 60 lakh persons are engaged in various sericulture activities in the country. It is estimated that sericulture can generate employment of 11 man days per kg of raw silk production throughout the year.

This paper reviews recent research on silk industries by considering various SWOT analysis. The analysis revealed the strength on this industry, Silk industry region based, the sustaining Market demand high cost of raw silk and overview of the technology innovations on- farm experimentation.

KEYWORDS: *Silk industry, SWOT analysis, Industry analysis, Raw silk cost*

1. INTRODUCTION

The silk industry has a distinctive position in India and play the significant role in textile industry and export. India is the second largest producer of silk in the world with 19690 MT (2008 to 09) and also the largest consumer of silk in the world and contributes 15% of the total world raw silk production. Geographically Asia is the main producer of silk in the world and manufacturers. Over 95% of the total global output there are over 40 countries on the world map of silk bulk of it is produced in China and India followed by Japan, Brazil and Korea. China is the leading supplier of silk to the world with an annual production of 10400 MT 2008 out of which the mulberry raw silk production is 70980 MT.

India produces a variety of silks called Mulberry, Tasar, Muga and any base production of raw silk which is the yarn obtained out of cocoons bun by certain species of insects. The major activities of sericulture comprised of food plant cultivation is to feed the silkworms which spin silk cocoons and for unwinding the silk filament for value added benefits such as processing and weaving.

It has a strong traditional and culture bound domestic market of silk. India has silk production in Karnataka, Andhra Pradesh, Tamil Nādu, Jammu and Kashmir and West Bengal while the non-mulberry silks are produced in Jharkhand, Chhattisgarh, Orissa and in the North Eastern States.

2. RELATED WORKS

The below table reviews the findings in the field of silk Industries by different authors across the world.



Table 1: Summarizes the findings by various authors

S. No.	Area of Study	Focus	Reference
1	Production export and import of silk	Performance Analysis of production and trade of Indian silk under WTO regime.	K. B Umesh et al (2009)
2	Analyse the impact of globalization	Impact of globalization of silk industry in northeast India. An assessment from gender perspectives	Kishore Goswami (2006) [9]
3	Performance of silk Industry	Indian Silk Industry in the global scenario.	Dr. R Anitha(2011) [24]
4	Growth potential of silk industry	Perspectives of silk Industry in India An Analysis	Dr. K. Tripurasundari, P. Rajalakshmi (2016)
5	Corporate Social Responsibilities	Social impact on silk	Banerjee, S. (2019) [10]
6	Covid-19 Impact	Price impact because of COVID19	Meher, B. K., Hawaldar, I. T., Mohapatra, L., & Sarea, A. M., (2020) [11]
7	Covid-19 Impact	Digital change in the silk during Coronavirus pandemic	Hawash. B., Abuzawayda, Y. I., Mokhtar. U. A., Yusof, Z. M., & Mukred, M. (2020) [12]

2. OBJECTIVES

- (1) To analyse and understand the overview of Silk Industry
- (2) To assess the manufacturing of Silk Industry.
- (3) To study and understand the Silk Industry trends and their innovations.
- (4) To direct the SWOT investigation for the Silk Industries.
- (5) To talk about the best Silk organizations in India.
- (6) To understand the Social Responsibility in these Industries.
- (7) To report the Covid19 impact.

3. METHODOLOGY

The information presented and analysed are primarily based on secondary data gathered from various online sources such as websites, internet blogs, books, journals, discussions, and articles. Based on secondary data, this case study is developed and published sources are taken into development agenda. Using the information collected from journal articles, newspapers, and business websites including the website of Silk Industry detailed evaluations are presented.

4. OVERVIEW OF SILK INDUSTRY

Continuous increase in disposable incomes is a major Driver. The Indian Sericulture market was worth INR 205 Billion in 2017. The market is further projected to reach INR Billion by 2023, at a CAGR of around 18% during 2018-2023. India is currently the world's second largest consumer of raw silk and silk fabrics. The market for silk in India is driven by both exports and a very strong domestic demand. Fabrics made up of silk are quite popular in the domestic market during ceremonies, religious rituals, weddings, festivals, etc. Although silk is currently regarded as a luxury item in India with its price being significantly higher than other fabrics, we expect a continuous increase in disposable incomes to increase the consumption of silk fabrics in the country.

Based on the segment the market has been segregated as a Mulberry and Vanya. The Vanya segment has been further segregated as Tasar, Eri and Muga. Mulberry currently represents the biggest segment. Despite being the world's second largest producer of silk, the demand of silk outpaces it's supply in India. The current gap between production and demand is currently met by imports. On the basis of application, the market has been segmented as natural silk yarns, fabrics and madeups; readymade garments, silk carpets and others. Silk yarns, fabrics and madeups represent the largest application area. The market has also been segmented on the basis of various states. Karnataka was the leading producer of Vanya silk. The key markets and export destinations are as given below:

- Export of silk and silk products from India reached 291.36 million dollars in FY19 and 246.67 million dollars in FY20.
- The silk products exported include natural silk yarns, fabrics, made ups, ready made garments, silk carpets and silk waste.
- The total silk and silk products export accounted for 83.9 million dollars from April 2021 to June 2021 and for June 2021 it was 13.72 million dollars.
- Ready made garments formed the largest share in export from April 2021to June 2021 at 54.49 million dollars and silk waste at 7.45 million dollars.



The Indian silk promotion council has initiated programmes for growth and development of the Silk Industry. ISEPC organises trade shows and fairs across the world to promote trade with different countries. The council also facilitates meetings between exporters and potential customers.

5. REGION BASED SILK INDUSTRIES

Assam silk :denotes the three major types of indigenous wild silks produced in Assam— golden Muga, white pat and warm Eri silk. The Assam silk industry, now centered in Sual Kuchi, is a labour-intensive industry. Its registered trademark is SUALKUCHI'S.

In 2015, Adarsh Gupta K of Nagaraju's research team at Centre for DNA Fingerprinting and Diagnostics, Hyderabad, India discovered the complete sequence and the protein structure of Muga silk fibroin and published it in Nature Scientific Reports.

Mysore silk : Karnataka produces 9,000 metric tons of mulberry silk of a total of 14,000 metric tons produced in the country, thus contributing to nearly 70% of the country's total mulberry silk. In Karnataka, silk is mainly grown in the Mysore district. In the second half of the 20th century, it revived and the Mysore State became the top multivoltine silk producer in India.

Kanchipuram silk: Is located very close to Chennai, the capital of Tamil Nadu. From the past Kanchipuram Silk sarees stand out from others due to its intricate weaving patterns and the quality of the silk itself. Kanchipuram silk sarees are large and heavy owing to the zari work on the saree. Kanchipuram attracts large number of people, both from India and abroad, who come specifically to buy the silk sarees. Most of the sarees are still hand woven by workers in the weaving unit. More than 5000 families still indulge in silk weaving.

Banaras: Made in Varanasi, a city which is also called Benares or Banaras. The sarees are among the finest sarees in India and are known for their gold and silver brocade or Zari, fine silk and opulent embroidery. The sarees are made of finely woven silk and are decorated with intricate design and because of these engravings, are relatively heavy.

Their special characteristics are Mughal inspired designs such as intricate intertwining floral and foliate motifs, kalga and bel, a string of upright leaves called jhallar at the outer, edge of border is a characteristic of these sarees. Other features are gold work, compact weaving, figures with small details, metallic visual effects, phallus, Jal (a net like pattern), and mina work.

7. SILK INDUSTRY TRENDS AND INNOVATIONS

Technological innovations in the sericulture to create enormous impact on the global silk market. However high cost of raw silk may hamper the global silk market growth. Silk is the insect fibre with excellent strength and luster. It has exquisite qualities such as the inherent affinity for vibrant colours and dyes, natural sheen, light weight, high absorbance, excellent drape, resilience and others. Because of such features, silk is known as the queen of textiles world wide. Silk is made up of proteins secreted in the liquid state by a silkworm, a caterpillar. Covid 19 impact on silk market business like hospitality, retail, and tourism industry have been forced to reconsider their business policies and models. Also, global silk market has witnessed declined growth, throughout the pandemic period mainly because the difficulties in accessing transportation facilities. Furthermore owing to the uncertainty in the market, domestic and international buyers suspended or cancelled their orders, adding to the worst of the industry. Such elements have negatively affected the global market for silk fibers in the outbreak period. On the other hand, Government statutory bodies are upcoming with strategic steps to uplift the Silk Industry.

8. INVESTMENT STRATEGIES IN SILK PRODUCTION AND PROCESSING

Moving beyond raw silk to produce finished goods such as silk garments, accessories, and home decor can open up new revenue streams and reduce dependence on raw silk prices. Investing in specialized silk types like organic or handloom silk can cater to high-end markets and differentiate products from mass-produced alternatives. Investing in advanced machinery for silk reeling and weaving can enhance productivity and quality. Technologies like automatic reeling machines, electronic jacquard looms, and computer-aided design systems streamline operations. Investment in eco-friendly practices and technologies, such as water-saving dyeing processes and organic silk farming, can meet the growing demand for sustainable and ethically produced silk. Expanding rearing facilities, enhancing cocoon storage, and building state-of-the-art processing units can increase production capacity and efficiency. Investing in silk production in diverse regions within a country can mitigate risks associated with regional climatic conditions and diseases affecting silkworms. Investing in R&D for developing disease-resistant and high-yield silkworm breeds can significantly boost productivity. Funding research into new applications of silk, such as in biomedical fields or high-tech fabrics, can create new market opportunities. Investing in branding and marketing to position silk products as luxury items can command higher prices and build customer loyalty. Leveraging digital platforms for marketing and sales can reach a global audience more efficiently.



9. IMPACT OF FINANCIAL PLANNING ON SCALABILITY AND SUSTAINABILITY

Proper financial planning helps allocate resources efficiently across different stages of the production process, from silkworm rearing to final product manufacturing, supporting scalable growth. Strategic planning for investments in infrastructure, such as upgraded processing units and logistics, supports scalability by enabling larger production volumes and better market access. Effective financial planning allows for better cost control, which is essential for maintaining profitability, especially in an industry susceptible to fluctuations in raw material prices. Financial planning can facilitate investments in sustainable practices and technologies, ensuring compliance with environmental regulations and meeting consumer demand for eco-friendly products. Planning for long-term investments in R&D and market expansion helps build a sustainable business model that can withstand economic and market changes.

10. RISK MANAGEMENT AND FINANCIAL FORECASTING FOR SILK ENTERPRISES

Risks include raw material shortages, transportation delays, and disruptions due to geopolitical factors or natural disasters. Failure to keep up with technological advancements can result in lower productivity and competitiveness. Financial instruments like futures contracts can hedge against price volatility. Diversifying product lines and markets reduces dependency on any single segment. Developing multiple sourcing options and investing in local supply chains can mitigate the risk of disruptions. Investing in ongoing R&D and staying abreast of technological advancements ensures competitiveness and resilience. Analyzing market trends and historical data to project future sales and revenue streams. Forecasting production and operational costs, considering variables such as raw material prices, labor costs, and technology investments. Planning for future capital expenditures and determining the financial viability of new projects and expansions. Conducting scenario planning to assess potential impacts of various economic, market, and environmental conditions on the business. Aligning financial planning with long-term goals for sustainable growth, considering environmental and social governance (ESG) factors. Creating financial buffers and contingency plans to withstand economic downturns and unforeseen challenges.

11. SWOT ANALYSIS

Strengths, Weaknesses, Opportunities, and Threats (SWOT) analysis is a method of determining a company's strengths, weaknesses, opportunities, and threats. Silk Industries will be able to map the present business environment and identify internal strategic aspects such as strengths and weaknesses, as well as external strategic factors such as opportunities and threats using this technique. Here we discuss in detail the Strength, Weaknesses, Opportunities, and Threats of silk Industry.

Strength

- Low investment, short gestation period and higher returns. Mulberry takes only six months to grow for starting silkworm rearing and once planted it can support five crops in one year under tropical condition. Depending on the management, rearing at least for 15 years can be continued in the same land.
- Comparatively cheap labour.
- Strong fair trade movement and women entrepreneurship in the silk sector. Different activities of sericulture starting from mulberry garden management, leaf harvesting and silkworm rearing even reeling and weaving can effectively be supported by women workers.
- Large production base.
- Availability of silk worm breeds and hybrids.
- Availability of silks, land and labour.
- Large variety of silk weaving techniques is in existence.
- Strong domestic demand.
- Practically no risk in industry.
- Children and old persons of rears family can also participate in rearing process.
- Scope for professional training.

Weakness

- High dependency on import of raw materials.
- Skills training facilities are not sufficient for the entire country.
- Weaving skills are diminishing.
- No modern reeling facilities in use.
- Lack of quality based pricing system in the market.
- Sericulture close to now existent.
- Availability of expertise in marketing are low.
- Use of outdated technology and low quality seeds.
- Decentralized nature of the industry inhibits financial institute from extending financial support to the sector.
- Poor linkage among different stakeholders.
- Gaps in technology transfer and extension support



Opportunities

- The growth in cities and state are quick in terms of industrial enterprise and urbanization.
- More opportunities exist as there is more growth in the market in other field which directly
- New silk fields have been discovered in Assam because of the huge population

Challenges

- Operational safety parameters.
- Small towns and rural regions face challenges .
- Difficult to penetrate into the energy market.
- Lack of steady national policy that could promote sustainable exploitation of renewable energy in Industry.
- Doubt of decision makers regarding the potentially.

12. SOCIAL RESPONSIBILITY

The social responsibility focuses on to the tribal communities that shoulder the responsibility of crafting fine silk fabrics woven through traditional that keep the cultural authenticity alive setting them apart from the rest of the world. Community development to uplift the artisans. To ensure that artisans feel empowered and enjoys the crafts that it rightfully deserves. They build a community which can survive through natural calamities and support such crafts will help in the upliftment for these artisans. Sustainably reviving crafts through product development. Assamese textile is known for its fine quality, brightness of colour and durability. Regular visits to the artisans and suppliers helps them to create culturally authentic products for the global markets. Preserving and promoting of Assam Weaving heritage. Assamese weavers are true to their tradition and roots. One of the most important goals for us is to preserve and promote the Assam Weaving heritage around the world. Embracing Womanhood To empower women weavers. Work with suppliers whose first priority is to keep the women weavers safe and sound so that we as a social enterprise help in keeping the age-old tradition alive and empower them. They teach them how to read, learn and do basic savings so that their self esteem and confidence is boosted even further. We are grateful to our suppliers who help in providing basic incentives and regular health check ups as well. Appreciate and support slow design and process (Quality over Quantity) We take time to produce and will be carried out in small production but it will bring you closer to being ethically correct in the fashion world where everything is going in such fast pace. Its our duty as a young start up social innovative label to slow down the process. Positive impact on the environment. We respect our planet and ecosystem. Being conscious of our environment has brought us closer to being ethically accountability in the fashion world where everything is going fast. Being honest with the waste management and causing no harm is always in our mind. We make sure that our suppliers understand this ethos so that we support zero waste management and dye waste management. Social Donation Through Unique Product Innovation. In order to mark and honour the core identity that Assam carries that is its One-Horned Rhinos- which are on the brink of extinction- we designed a line of hair accessory, we call it 'Rhinears'. We are in a serious mission to donate a percentage of our profit through this product line for Saving The Rhinos in Assam

13. COVID-19 IMPACT

The global pandemic of Covid-19 has affected the existing modus operandi of various textile sectors by posting restriction of social gathering, migration of laborers as well as affecting all the stakeholders right from farmers to traders/exporters in the value chain of textile sector and at the same time it has opened new window of opportunities which were previously less explored. The government has conducted a study viz. 'Impact of Covid-19 pandemic on Indian silk industry' to ascertain the crisis caused to the sector. It has been observed that there was a production decline and monetary loss at every stage of the value chain. The industry has faced various problems like loss in production, crash in cocoon and raw silk prices, transportation problem, non-availability of skilled workers, problems in selling raw silk and silk products, working capital and cash flow problems, non-availability of raw materials, reduction in demand for silk fabric, cancellation of export/import orders besides export and import restrictions. Since, textile sector being highly unorganized sector therefore, the government has not made any formal assessment with regard to the losses incurred by the sector.

To withstand in COVID 19 pandemic, the Government of India has announced a special economic package viz. AatmaNirbhar Bharat Abhiyaan for boosting economy of the country and making India self-reliant. Relief and credit support measures have been announced for various sectors including MSMEs. The weavers & artisans/karigars can avail benefits of these relief and credit support measures to revive their businesses which have suffered due to lock down necessitated by Covid-19 pandemic. Taking a step towards realizing "Atmanirbhar Bharat", Handloom Export Promotion Council has endeavoured to virtually connect the Handloom Weavers and exporters from different corners of the country with the International Market. With more than 200 participants from different regions of the country showcasing their products with unique designs and skills, THE INDIAN TEXTILE SOURCING FAIR was organised on 7, 10 and 11th August. The show has already attracted considerable attention of the International Buyers. In order to support the handloom and handicraft sectors and to enable wider market for handloom weavers/artisans/producers, steps have been taken to on-board weavers/artisans on Government e-Market place (GeM) to enable them to sell their products directly to various Government departments and organizations.



14. RECOMMENDATIONS AND SUGGESTIONS

The Government should establish a price regulation mechanism for the silk weavers so that the small traders are not exploited. This can be done by setting up a Silk Auction Board on the lines of the Tea Auction Board. This will also make Assam silk a large global brand like the tea industry and transform it into a modern industry ensuing competition at the global level. Our nation has a very unique way of dealing with protests. From the streets of Srinagar to the grounds of Kudankulam down south, the first response of authorities always seem to be to meet the protest with force, terming everything a “law and order” problem. Such an attitude generally doesn't pay any long term dividends and in fact increases the distance between the Government and the governed.

Yet today this source of pride is in the news for all the wrong reasons. The glory that this sleepy town earned for Assam and for India throughout the years, is now slipping away. It is slowly turning into a story of despair and these protests and subsequent being fired upon is merely a manifestation of this despair. So what is it that ails the industry today or rather the bigger question is how do we develop and protect our indigenous industries. First and foremost, we must be able to understand the basic problems that plague this labour intensive industry today. An example in this regard is the non existence of price control. There is no price control board which regulates the price of these commodities. For example, the price of a piece of cloth is the same as it was five years ago with very minor increase. In this era of inflated economy, we can all comprehend how this non-increase in the basic prices of the commodity will hit the producers. Major fallout of this non-increase in price is degradation in the quality of cloth. To make up for the losses in the non increases of prices, a large number of producers are resorting to mixing other elements in the cloth. The price of the commodity depends on a few large traders who virtually have iron grip on the market. They fluctuate the prices according to their own needs so that the market prices move when they desire to do so. This hegemony deters the very growth of the industry and also acts against letting any new traders enter this trade since they know the profits will depend on the whims and fancies of a few large traders.

15. FINDINGS

India produces all the four varieties of silk, viz. mulberry, tassar, eri and muga. The synthetic silk produced by Japan and Italy, being less expensive has been in competition with pure silk. Sericulture is the art of rearing silkworms for silk production. It is an important industry as it provides employment to people in rural areas. Karnataka produces only mulberry silk and accounts for 70% of the silk production. The reasons for the concentration of the silk industry in Karnataka are: Availability of the silkworm ‘Bombyx Mori’ and the mulberry plant throughout the year. The climate is favourable for rearing of silkworm. Availability of alkaline free water. Introducing modern technology to cultivate. Introduction of modern technology of rearing of silkworms. The market for silk in India is driven by both exports and a very strong domestic demand. Fabrics made up of silk are quite popular in the domestic market during ceremonies, religious rituals, weddings, festivals, etc. Silk is used as a raw material for the manufacturing of both garments such as suits, sarees, etc. as well as in products such as curtains, bed sheets, pillow covers etc. Although silk is currently regarded as a luxury item in India with its price being significantly higher than other fabrics, we expect a continuous increase in disposable incomes to increase the consumption of silk fabrics in the country.

16. CONCLUSION

India is the second largest producer of silk, contributing to about 18 per cent to the world production. What is however, more noteworthy is the fact that India's requirement of raw silk is much higher than its current production at present. Thus, there is considerable scope for stepping up production of raw silk in the country, overcome the persistent conflict of interest between exporters of silk products and producers of raw silk. While sericulturists want imports of raw silk to be restricted to have better market for their produce, exporters want imports of cheaper raw silk so as to be able to export more silk products at competitive rates. India has all the four varieties of silk namely, mulberry, tassar, eri and muga. It is however, disheartening to note that we have not yet been able to fully exploit this advantage and make our presence felt on the international scene more prominently than at present. For this, one has to clearly understand the strengths and weaknesses of different segments of this sector. The strength of this industry lies in its wide base, the sustaining market demand pull especially from the Indian handloom weaving sector, the infrastructure created by the national sericulture project and the research and training capabilities.

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