



## EXPORT AND IMPORT DYNAMICS OF THE INDIAN SILK INDUSTRY: GROWTH, CONSUMPTION, AND GOVERNMENT ROLE

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### RESEARCH ARTICLE



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### Abstract

Silk is a way of life. It is an inseparable part of Indian Culture and Traditions. Sericulture is the art and techniques of silk production. Indian people are largely dependent on the sericulture farm activities as more than 70% of the people's livelihood security on this sector. It is agro based Industry. It has high potential for higher returns and plays a vital role in improvement of rural economy in India. India is ranked as the second largest producers in India and makes silk varieties in the world. Recently many of the farmers are trained on production of silk in the silkworms. And many improvements has been provided by the government and been providing to the silk industries. As a result this has increased the production as well as export to other countries.

**Keywords:** *Export, Import, Indian Silk Industry, Growth, Government Role*

### Introduction

The silk industry has a distinctive position in India, which plays a significant role in the Textile Industry. India is the second largest producer of silk contributes to about 18% of the world production. China is the leading supplier of silk to the world. The silk industry originated in China according to tradition knowledge of the silkworm. After that silk was entered into India during the 3<sup>rd</sup> century B.C. India stands to be one of the leading consumers of silk and silk products and also the largest exporter of silks. Geographically Asia is the main producer of silk in the world and manufactures over 95% of the total global output. Although there are over 40 countries on the world map that produce silk, bulk of its produced China and India, followed by Japan, Brazil and Korea. The five largest producing counties are China, India, Uzbekistan, Brazil and Thailand. An Indian state's productions of silk are Karnataka, Andhra Pradesh, Tamil Nadu, West Bengal, Jammu and Kashmir and Mysore.

Silk is the queen of all fabrics. Silk and Silk fabrics have attracted mankind and have found their place among the most valued and elegant human fabrics. It is historically one of the most important industries in India. Silk is the natural protein fiber mainly composed of fibroin and it is produced by certain insects, larvae to form cocoons. The method of production of silk by cultivating the silkworms is known as 'sericulture'. Sericulture is both arts and science of raising silkworms for silk production. India has a well-built tradition and culture bound home market of silk. Sericulture involves rearing of food plants- Mulberry plants, rearing of silk insects and finally post-cocoon processes such as twisting, dyeing, weaving, printing and finishing. Sericulture, the art and science of growing silkworms, food plants, rearing silkworms and production of silk is basically an agro industry. Silk has been intermingled with the life and culture of the Indians. India produces a variety of silks called as Mulberry, Tasar, Muga, and Eri based on the feeding habit of the cocoons. The industry has shown significant growth both domestically and internationally fuelled by new innovations in the field. In India, Mulberry silk is produced mainly in the state of Karnataka, Andhra Pradesh, Tamil Nadu, Jammu & Kashmir and west Bengal. The non- mulberry silks are produced in the state of Jharkhand, Chhattisgarh, Orissa and North-eastern states.

### Review of Literature

K.B. Umesh in this article entitled "The study on performance analysis of production and trade of Indian silk under WTO", has made an attempt to the performance analysis of considering both mulberry and non-mulberry silk sectors at all India level for two sub- periods. The analytical tools used for the study is growth model and co-integration technique. The overall growth in

production of cocoon and raw silk in India exhibited a decreasing production and exports there is a need to expand production and income enhancing support to the silk industry. DR. R. Anitha in this article entitled “The study on Indian silk industry in global scenario” has made an attempt to the variety of silks and silk filament for value added benefits such as processing and weaving. India’s export has adequately progressed during the period with both quantity and value of export showing high and significant growth. The analytical tools used for the study is percentage and table to analyze the strengths and problems of Indian silk Industry. The marketing and processing of cocoons, India can hope to develop its sale of domestic raw silk beyond its own borders.

Narendra Kumar Bhatia in his article entitled “The study on yield gap analysis of mulberry sericulture in northwest India”, has made an attempt to innovations in sericulture technology have improved silk productivity at national level, the statistical analysis of the data was carried out with the help of statistical software ‘STATISTICA’. The whole process of mulberry sericulture is divided into pre-cocoon and post-cocoon mulberry silk India is produced in twenty six states that are grouped into traditional and non-traditional states. B. Shreedevi in his article entitled “The study on production and export performance of Indian Silk Industry: an economic analysis”, has made an attempt to analyze Indian silk goods have high export potential because of its distinctness and low production cost. This study has been made to the production and export performance of Indian silk industry. The import value of raw silk into India showed a highest positive growth rate of 10.10% per annum against the export value of silk. The analytical tools used for the study is instability analysis and nominal production coefficient to estimate growth pattern and instability of raw silk production in different states and India as a whole. The study reveals the following findings farmers should be given training on production and marketing of quality silk products.

T.S. Sananse in his article entitled “The study on statistical trend analysis of global production export and imports scenario of raw silk”, has made an attempt to the global area, production, growth rate of global export and import of raw silk. This study estimates the growth rates and other statistics, all India and country wise production and productivity of raw silk export and import data at global level. Study is based on the secondary data. The analytical tools used for the study is simple growth rate and compound growth rate. The study reveals the following finding is the largest silk producers are Asian countries and china. The growth rate of import value on raw silk is increased to 5.50%. Tariq Ahmad Bhat in his article entitled the “Study on growth and instability in raw silk production and marketing in India”, has made an attempt to highlight the growth and instability of raw silk production and the raw silk marketing system is spread over the different states in India. The study is based on the secondary data. The analytical tools used for the study is compound growth rate and coefficient of variation. The study reveals the following findings the raw silk production has an increasing trend and raw silk exchange market has a direct impact on raw silk prices. Hence the states which have good marketing infrastructure yield good prices to produce.

K. Thiripura Sundari in his article entitled “The study on silk production the global scenario” has made an attempt to intangible value related to the preservation of mankind’s cultural heritage. The study is based on the secondary data. The raw silk production of various countries across the globe the industry has a strong equity orientation as large numbers of labour, marginal and small farmers are dependent on the silk industry. The study reveals the following findings raw silk production in India has increased from 18475 MT in 2006-2007 to 28523 MT in 2015-2016. Agatha Popescu in his article entitled “considerations upon the trends in the world silk trade”, has made an attempt to analyze the dynamics of the world silk production export, import and trade balance in the period and to identify the trends and estimate the forecast. The analytical tool is used for the index method, standard deviation, coefficient variation. The study reveals the following findings world silk production increased in the analyzed period from 20837.5 MT in 2007 to 192692.45 MT in the year 2016. Therefore, in this period the world silk productions increased 9.24 times.

### **Objectives of the Study**

The research aims at enriching the knowledge undertaking role of export and import performance of silk industry, the following are the objectives of the study.

- ❖ To study the role of silk industry in export and import.
- ❖ To examine the growth in consumption of silk in India.
- ❖ To analyze the overall export and import performance of the silk industry in India.
- ❖ To evaluate the role of government in the development of the silk industry.

### **Methodology**

The study is based on the secondary data. The secondary data were collected from the Ministry of textiles, central silk board, Ministry of commerce and international sericulture commission. The data have been analyzed through the many websites. The period of study is 2009-2018.

Findings of the Study

Export

YEAR	5001 (SILK-WORM COCOONS)			5002 (RAW SILK)			5003 (SILK WASTE)		
	VALUE	GR	%	VALUE	GR	%	VALUE	GR	%
2009	12.20		3.34	836.65		32.92	2492.2		3.08
2010	6.67	-45.33	1.83	234.50	-71.97	9.23	4407.1	76.83	5.45
2011	3.87	-41.98	1.06	258.18	10.10	10.16	4977.3	12.94	6.16
2012	9.86	154.78	2.70	290.08	12.36	11.41	6296.8	26.51	7.79
2013	17.4	76.47	4.76	439.71	51.58	17.30	9929.7	57.69	12.29
2014	5.63	-67.64	1.54	68.89	-84.33	2.71		9.89	13.50
2015	270.81	4710.1	74.11	143.46	108.3	5.64	8981.11	-17.7	11.11
2016	32.42	-88.03	8.87	43.93	-69.38	1.73	9771.24	8.80	12.09
2017	5.42	-83.28	1.48	90.06	105.0	3.54	10119.02	3.56	12.52
2018	1.16	-78.60	0.32	136.19	51.22	5.36	12938.84	27.87	16.01
<b>TOTAL</b>	<b>365.44</b>			<b>2541.7</b>			<b>80825.44</b>		
AV	<b>36.54</b>			<b>254.17</b>			<b>8082.54</b>		
SD	<b>82.80</b>			<b>237.36</b>			<b>3340.02</b>		
CV	<b>2.27</b>			<b>0.93</b>			<b>0.41</b>		

YEAR	5004 (SILK YARNS)			5005 (YARN SPUN FROM SILK WASTE)			5006 (SILK YARN & YARN SPUN FR SILK WASTE)		
	VALUE	GR	%	VALUE	GR	%	VALUE	GR	%
2009	1146.9		15.81	678		6.55	267.76		4.74
2010	1920.4	67.44	26.47	1634.54	141.08	15.78	319.27	19.24	5.65
2011	650.97	-66.10	8.97	856.55	-47.60	8.27	198.67	-37.77	3.51
2012	775.24	19.09	10.69	866.77	1.19	8.37	254.34	28.02	4.50
2013	898.36	15.88	12.38	1476.35	70.33	14.25	785.09	208.68	13.89
2014	360.87	-59.83	4.97	1056.19	-28.46	10.20	1048.79	33.59	18.55
2015	706.09	95.66	9.73	939.97	-11.00	9.08	1070.64	2.08	18.94
2016	310.75	-55.99	4.28	676.31	-28.05	6.53	467.62	-56.32	8.27
2017	135.68	-56.34	1.87	799.49	18.21	7.72	626.14	33.90	11.08
2018	349.78	157.8	4.82	1373.41	71.79	13.26	614.02	-1.94	10.86
<b>TOTAL</b>	<b>7255.0</b>			<b>10357.58</b>			<b>5652.34</b>		
AV	<b>725.50</b>			<b>1035.76</b>			<b>565.23</b>		
SD	<b>520.43</b>			<b>341.56</b>			<b>322.01</b>		
CV	<b>0.72</b>			<b>0.33</b>			<b>0.57</b>		

YEAR	5007 (WOVEN FABRICS OF SILK OR OF SILK WASTE)		
	VALUE	GR	%
2009	126489.02		16.20
2010	157592.94	24.59	20.19
2011	88523.25	-43.83	11.34
2012	77031.22	-12.98	9.87
2013	76994.88	-0.05	9.86
2014	69334.03	-9.95	8.88
2015	56121.17	-19.06	7.19
2016	46827.4	-16.56	6.00
2017	37963.37	-18.93	4.86
2018	43742.7	15.22	5.60
<b>TOTAL</b>	<b>780619.98</b>		
AVER AGE	<b>78062</b>		
SD	<b>38153.02</b>		
CV	<b>0.49</b>		

**Import**

YEAR	5001 (SILK WORM COCOONS)			5002 (RAW SILK)			5003 (SILK WASTE)		
	VALUE	GR	%	VALUE	GR	%	VALUE	GR	%
2009	12.21		98.71	93369.88		8.95	534.49		2.76
2010		-100		92758.83	-0.65	8.89	743.43	39.09	3.83
2011				111152.7	19.83	10.65	887.50	19.38	4.58
2012				123856.4	11.43	11.87	1725.30	94.40	8.90
2013				89644.36	-27.62	8.59	2896.25	67.87	14.94
2014				97081.93	8.30	9.30	2590.69	-10.55	13.36
2015	0.11		0.89	100616.3	3.64	9.64	3676.59	41.92	18.96
2016		-100		109226.5	8.56	10.47	1502.52	-59.13	7.75
2017	0.01		0.08	121814.3	11.52	11.67	1199.02	-20.20	6.18
2018	0.04	300	0.32	104139.9	-14.51	9.98	3636.57	203.30	18.75
<b>TOTAL</b>	<b>12.37</b>			<b>1043661</b>			<b>19392.36</b>		
AV	1.24			104366.1			1939.24		
SD	3.86			11988.6			1180.09		
CV	3.12			0.11			0.61		

YEAR	5004 (SILK YARNS)			5005 (YARN SPUN FROM SILK WASTE)			5006 (SILK YARN& YARN SPUN FRM SILK WASTE)		
	VALUE	GR	%	VALUE	GR	%	VALUE	GR	%
2009	16541.4		18.63	1369.91		6.83	1192.32		14.98
2010	17409.81	5.25	19.61	1788.53	30.56	8.92	1147.5	-3.76	14.41
2011	8746.07	-49.76	9.85	1172.69	-34.43	5.85	593.89	-48.24	7.46
2012	5151.06	-41.10	5.80	2334.59	99.08	11.64	539.89	-9.10	6.78
2013	5949.68	15.50	6.70	3290.99	40.97	16.40	766.15	41.91	9.62
2014	7193.69	20.91	8.10	2666.65	-18.97	13.29	517.35	-32.47	6.50
2015	5729.67	-20.35	6.45	1785.17	-33.06	8.90	650.87	25.81	8.18
2016	5473.04	-4.48	6.16	1430.31	-19.88	7.13	762.24	17.11	9.57
2017	8215.28	50.10	9.25	1933.43	35.18	9.64	1035.83	35.89	13.01
2018	8382.04	2.03	9.44	2289.39	18.41	11.41	754.82	-27.13	9.48
<b>TOTAL</b>	<b>88791.74</b>			<b>20061.66</b>			<b>7960.91</b>		
AV	8875.17			2006.17			796.09		
SD	4460.07			650.44			246.53		
CV	0.50			0.32			0.31		

YEAR	5007 (WOVEN FABRICS OF SILK OR OF SILK WASTE)		
	VALUE	GR	%
2009	69021.84		19.57
2010	56046.4	-14.45	16.74
2011	42589.84	-27.87	12.07
2012	36328.21	-14.70	10.30
2013	29764.7	-18.07	8.44
2014	21320.3	-28.37	6.04
2015	22307.41	4.63	6.32
2016	22333.88	0.12	6.33
2017	27326.34	22.35	7.75
2018	22690.78	-16.96	6.43
<b>TOTAL</b>	<b>352729.7</b>		
AV	35272.97		
SD	16802.17		
CV	0.48		

### **Export**

The above the table shows the total export of silk worm cocoons during the year 2009 (3.34%) and it's decreased in the year 2018 (0.32%). Average export of silk worm cocoons during the year Rs.36.54. Standard deviation of silk worm cocoons value is 82.80. And Co-efficient of variance is 2.27% on the total exports. The above the table shows the total export of Raw silk during the year 2009 (32.92%) and it's decreased in the year 2018 (5.36%). Average export of Raw silk during the year Rs. 254.17. Standard deviation of raw silk value is 237.36. And Co-efficient of variance is 0.93% on the total exports. The above the table shows the total export of silk waste during the year 2009 (3.08%) and it's increased in the year 2018 (16.01%). Average export of silk waste during the year Rs. 8082.54. Standard deviation of silk waste value is 3340.02. And Co-efficient of variance is 0.41% on the total exports.

The above the table shows the total export of silk yarns during the year 2009 (15.81%) and it's decreased in the year 2018 (4.82%). Average export of silk yarns during the year Rs. 725.50. Standard deviation of silk yarn value is 520.43. And Co-efficient of variance is 0.72% on the total exports. The above the table shows the total export of yarn spun from silk waste during the year 2009 (6.55%) and it's increased in the year 2018 (13.26%). Average export of yarn spun from silk waste during the year Rs. 1035.76. Standard deviation of silk value is 341.56. And co-efficient of variance is 0.33% on the total exports.

The above the table shows the total export of silk yarn and yarn spun from silk waste during the year 2009 (4.74%) and it's increased in the year 2018 (10.86%). Average export of silk yarn and yarn spun from silk waste during the year Rs. 565.23. Standard deviation of silk value is 322.01. And Co-efficient of variance is 0.57% on the total exports. The above the table shows the total export of woven fabrics of silk or of the silk waste during the year 2009 (16.20%) and it's decreased in the year 2018 (5.60%). Average export of silk during the year Rs. 78062. Standard deviation of silk value is 38153.02. And Co-efficient of variance is 0.49% on the total exports.

### **Import**

The above the table shows the total Import of silk worm cocoons during the year 2009 (98.71%) and it's decreased in the year 2018 (0.32%). Average import of silk worm cocoons during the year Rs.1.24. Standard deviation of silk worm cocoons value is 3.86. And Co-efficient of variance is 3.12% on the total imports. The above the table shows the total Import of Raw silk during the year 2009 (8.95%) and it's increased in the year 2018 (9.98%). Average import of Raw silk during the year Rs. 104366.10. Standard deviation of raw silk value is 11988.59. And Co-efficient of variance is 0.11% on the total imports. The above the table shows the total Import of silk waste during the year 2009 (2.76%) and it's increased in the year 2018 (18.75%). Average import of silk waste during the year Rs. 1939.24. Standard deviation of silk waste value is 1180.09. And Co-efficient of variance is 0.61% on the total imports.

The above the table shows the total Import of silk yarns during the year 2009 (18.63%) and it's decreased in the year 2018 (9.44%). Average import of silk yarns during the year Rs. 8879.17. Standard deviation of silk yarn value is 4460.07. And Co-efficient of variance is 0.50% on the total imports. The above the table shows the total Import of yarn spun from silk waste during the year 2009 (6.83%) and it's increased in the year 2018 (11.41%). Average import of yarn spun from silk waste during the year Rs. 2006.17. Standard deviation of silk value is 650.44. And co-efficient of variance is 0.32% on the total imports.

The above the table shows the total Import of silk yarn and yarn spun from silk waste during the year 2009 (14.98%) and it's decreased in the year 2018 (9.48%). Average import of silk yarn and yarn spun from silk waste during the year Rs. 796.09. Standard deviation of silk value is 246.53. And Co-efficient of variance is 0.31% on the total imports. The above the table shows the total Import of woven fabrics of silk or of the silk waste during the year 2009 (19.57%) and it's decreased in the year 2018 (6.43%). Average import of silk during the year Rs. 35272.97. Standard deviation of silk value is 16802.17. And Co-efficient of variance is 0.48% on the total imports.

### **Suggestions**

- India has high potential in silk the industry but lacking of investment in new or innovative technologies. Investment should be made in technologies to make this industry and more competitive.
- The silk mark is implemented in a strict manner so that quality silk can be recognised and exploitation will be reduced.
- India has huge potential for increasing export earnings as it has better comparative advantages.
- Awareness about the prices prevailing in different raw silk exchange markets.
- The increasing quality of silk production to meet the growing domestic and export demands of silk products in near future.
- The government is taking steps to improve the silkworm food plant and to the production of cocoons, and given incentives to approach the sericulture.
- Government should extend the credit facility for reares and reelers, and so participation of middle man will be reduced.
- The government is avoid increasing of prices on raw silk and customs duty imposed 10 % to 20% will be decreasing export and import is increasing.
- The silk industry has been promoting the employees giving the work and encouraging the persons.
- The government owned the sericulture farms should be converted into commercial farms and more such farms will be established and connected for the farms to each other properly.
- It must focus on higher production of silks and growth of the economy.
- Feedback or consultation from employees on production or manufacturing sector.

## Conclusion

The Indian silk industry plays an important role in the textile industry. The silk competition from synthetic fibre silk production is continuously increasing every year. Decline in production in China, Japan gave opportunity to India to increase production. Central silk board is many of the incentives for providing Indian silk industry to promote the activities. Under globalization, the world class quality and competitive price for its products will be sustained. And today the Indian silk industry production of silk saris and any other dress materials is an exclusive brand of Indian silk developed. The 85% of silk goods produced in India are sold in the domestic market and 15% are exported. In India, this Industry provides livelihood to 6 million families to provide an employment opportunity. India can take up the challenge of production of high quality silk in required quantities to meet the domestic requirement as well as to earn valuable foreign exchange. Though the volume of silk trade is comparatively low, the value of international trade in silk and silk products is significant. The world demand for silk is on the increase particularly since the past two decades. This agro based silk industry leads a significant role in national economy and national development.

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