

Impact of Power Loom Industry During Covid- 19 Pandemic Period Major District in Tamilnadu

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Abstract: The Indian textile industry is as diverse a complex as country itself and it combines with equal equanimity this immense diversity into a cohesive whole. The world is battling with modern horrors like the COVID-19, which has left the entire world befuddled and in the lurch as to how one virus has brought the entire world to a standstill. This devastating virus which is declared by the WHO as the pandemic has taken over almost 195 countries in its grip. The entire world is facing Covid-19 Pandemic, which has not left any part of the world to face it. One side lives have been lost as a result of Pandemic, on the other side largest problem that the world is facing big downfall in the economy too. The objectives of the paper to find out the economic crisis have attacked various businesses in and around the world during the pandemic period. In all sorts of Travel, Hospitality, Hotels, Restaurants, Bar, Package food, retail, e-commerce, Automobile etc. One of the severely affected industries is Textile manufacturing too which is the second largest employment creating industry after agriculture. The textile and clothing Industry employs over 105 million people and also earn around US \$ 40 billion FOREX, apart from substantial revenue under GST and other taxes. But this industry is shut down since due to lockdown and all the stakeholders of the industry are suffering severely. In Tamilnadu Textile Industry has three main segments mill sector, handloom sector and decentralized power loom sector. This paper analyses the impact of Power Loom Industry during the Covid- 19 Pandemic Period in Tamilnadu.

Keywords: Problems and Prospects, impact of Powerloom Sector, Government policy & schemes in Covid- 19 Pandemic Period.

1. Introduction

The growth of the powerloom industry started with the loosening of the ground by the textiles mills. The textile industry in India traditionally, after agriculture, is the only industry that has generated huge employment for both skilled and unskilled labour in textiles. The textile industry continues to be the second-largest employment generating sector in India. It offers direct employment to over 35 million in the country. According to the Ministry of Textiles, the share of textiles in total exports during April–July 2010 was 11.04%. During 2009–2010, the Indian textile industry was pegged at US\$55 billion, 64% of which services domestic demand. In 2010, there were 2,500 textile weaving factories and 4,135 textile finishing factories in all of India.

India is first in global jute production and shares 63% of the global textile and garment market. India is second in global textile manufacturing and also second in silk and cotton production. 100% FDI is allowed via automatic route in textile sector. Rieter, Trutzschler, Saurer, Socktas, Zambiat, Bilsar, Monti, CMT, E-land, Nishinbo, Marks & Spencer, Zara, Promod, Benetton, and Levi's are some of the foreign textile companies invested or working in India. India's textiles sector is one of the oldest industries in Indian economy dating back several centuries. India's textile and apparel exports stood at US\$ 38.70 billion in FY19 and is expected to increase to US\$ 82.00 billion by 2021 from US\$ 22.95 billion in FY20 (up to November 2019). Exports of textiles from India expected to reach US\$ 82 billion in 2021 from US\$ 39 billion in FY19.

Indian textile industry:

The Indian textiles industry is extremely varied, with the hand-spun and hand-woven textiles sectors at one end of the spectrum, while the capital-intensive sophisticated mills sector at the other end of the spectrum. The decentralized power looms/ hosiery and knitting sector form the largest component of the textiles sector. The close linkage of the textile industry to agriculture (for raw materials such as cotton) and the ancient culture and traditions of the country in terms of textiles make the Indian textiles sector unique in comparison to the industries of other countries. The Indian textile industry has the capacity to produce a wide variety of products suitable to different market segments, both within India and across the world. The decentralized power loom sector is one of the most important segments of the Textile Industry in terms of fabric production and employment generation.

Employment opportunities:

It provides employment to 61.72 lakhs persons and contributes 62 percent to total cloth production in the Country. 60% of the fabrics produced in the power loom sector are of man-made. More than 60% of fabric meant for export is also sourced from power loom sector. The readymade garments and home textile sectors are heavily dependent on the power loom sector to meet their fabric requirement. There are approximately 5.24 Lakh Power loom Units with 24.69 Lakh Power looms as on December, 2015. The technology level of this sector varies from

obsolete plain loom to high tech shuttleless looms. There are approximately 1, 05,000 shuttle less looms in this sector. It is estimated that more than 75% of the shuttle looms are obsolete and outdated with a vintage of more than 15 years and have virtually no process or quality control devices / attachments. India has only 2% shuttleless looms as against the world average of 16%. Our competitors China, Pakistan and Indonesia have 15%, 9% and 9% respectively of shuttle-less looms. Karnataka has a significant presence of power looms. There are about 120000 looms engaged in weaving of silk and cotton. Power looms are mainly concentrated in Tamilnadu Urban and Rural Districts.

POWERLOOM SECTOR IN INDIA :

The powerloom sector has grown up from handloom sector traditionally with inherent technical knowhow passed on from forefather and is being continuing in many of the clusters. This sector plays a pivotal role in meeting the clothing needs of the country. The powerloom sector produces a wide variety of cloth, both grey as well as processed. Production of cloth as well as generation of employment has been rapidly increasing in the powerloom sector. There are 22.69 lakh powerlooms in the country as on 31st October 2010 distributed over approximately 5.11 lakh units. The powerloom sector contributes about 61% of the total cloth production of the country, and provides employment to about 56.64 lakh persons. More than 60% of the cloth meant for export comes from the powerloom sector.

POWERLOOM SECTOR IN TAMILNADU:

In the history of Indian Textile Industry, among the majority of the sub-sectors, Tamilnadu occupies a prominent position. Tamilnadu contributes about one-third of the total textile production in the country. The State textile industry is predominantly cotton based. Some of the textile products from Tamilnadu which are universally recognized for the excellent craftsmanship and their uniqueness are Kancheepuram Silk Sarees, Bhavani Carpet (Jamukalam), Madurai Sungadi Sarees, Coimbatore Kora Sarees, Paramakudi Sarees, Salem Silk Dhoties, Erode and Karur Home Textiles, Tirupur Knitwear Garments, etc. The State Textile Sector provides direct employment to around 40 lakh people. Powerloom sector is one of the most significant segments of the textile industry in Tamil Nadu. Tamilnadu holds the second position in the country in terms of number of powerlooms installed. There are 22.69 lakh registered powerlooms in India, of which, Tamilnadu has 4.46 lakh registered powerlooms with 11.16 lakh workforce. The cloth production in the powerloom sector in India is about 54000 million sq. metre, of which, the State contributes about 10800 million sq. metre.

2. Statement of The Problem

The textile industry contributes a major share to the GDP of India. Though there are various sectors operating in textile industry in India, the powerloom sector remarkably contributes i.e., 62% to the total share. The powerloom sector acts as a help to the society by creating lot of employment opportunities, both directly and indirectly. In this present scenario, the powerloom sector facing various problems relating to procurement and efficient utilization of raw material, labour, credit accessibility, management of finance and marketing.

Power loom

The power loom sector produces more than 60% of cloth in India and textile ministry's estimation says that more than 60% of the country's cloth exports originated from that sector. With its employment of 4.86mn workers, the power looms sector comprised approximately 60% of total textile industry employment. As per textile ministry of India up till March 31, 2006, the power looms sector — which produces various cloth products, including greige and processed fabrics — consisted of 430,000 units with 1.94mn power looms. The ministry projected the number of power looms to rise to 1.95mn in 2006-07. But modernization in looms is less and Indian industry still lags significantly behind US, China, Europe, Taiwan etc. Most of the looms we have currently in country are shuttle-less. There are less than 15,000 modern looms, whereas traditional looms are in large numbers. Value addition and the manufacturing of fabrics according to customer's compliances, is not possible due to obsolete technology of looms.

Government Policy & Scheme:

Textile sector is highly unorganized sector. The government has initiated special measures to help ameliorate the conditions in textile sector due to Covid pandemic and to boost production, marketing and job opportunities in the sector. The government has conducted a study viz. 'Impact of Covid-19 pandemic on Indian silk industry' to ascertain the crisis caused to the sector. The industry has faced various problems of production, cocoon and raw silk prices, transportation problem, non-availability of skilled workers, sale of raw silk and silk products, working capital and cash flow, reduced export/import orders, besides restrictions.

Index of Industrial Production (IIP):

Indian Textile Industry Structure and Growth The size of India's textile and apparel market recorded USD 108.5 billion in 2015 and is expected to reach USD 226 billion by 2023, growing at a CAGR of 8.7 per cent between 2009 and 2023. India is the second largest producer and exporter of cotton in the world at \$6.3 billion, marginally close to China. The Indian Textile Industry contributes approximately 5 per cent to India's Gross Domestic Product (GDP), and 14 per cent to overall Index of Industrial Production (IIP). The Indian textile industry has the potential to reach US\$ 500 billion in size according to a study by Wazir Advisors and PCI Xylenes & Polyester.

Significant in a Global Context

India's textile industry is one of the economies largest. In 2000/01, the textile and garment industries accounted for about 4 percent of GDP, 14 percent of industrial output, 18 percent of industrial employment, and

27 percent of export earnings. India's textile industry is also significant in a global context, ranking second to China in the production of both cotton yarn and fabric and fifth in the production of synthetic fibers and yarns. In contrast to other major textile-producing countries, mostly small-scale, non-integrated spinning, weaving, cloth finishing, and apparel enterprises, many of which use outdated technology, characterize India's textile sector. Some, mostly larger, firms operate in the "organized" sector where firms must comply with numerous government labor and tax regulations. Most firms, however, operate in the small-scale "unorganized" sector where regulations are less stringent and more easily evaded.

3. Scope of the Study

The Power Loom Industries have gained a lot of significance on account of several factors particularly due to rapid Development and balanced growth in rural and backward area in Tamilnadu. In this connection, it may be mentioned that the establishment of Power Loom Policy has given great importance for the growth and development of small Power Loom units. There are at present 841 sheds constructed in which more than 5,000 units are operating in 11 Power Loom areas Namakkal and Tiruppur, Erode, Coimbatore District spread in Tamilnadu.

The Power Loom units are the most exceedingly terrible sufferers after the advancement of Indian economy global organizations and the present monetary condition has likewise influenced Power Loom area and it is additionally important to assess the execution of undertakings, their development and issues experienced by them.

4. Hypotheses of the Study

□ H0: There is no significant difference between the impact of COVID-19 Lockdown and the operations of the power loom sector of in Tamilnadu

□ H1: There is a significant difference between the impact of COVID-19 Lockdown and the operations of the power loom sector of in Tamilnadu

Indian textile industry Reforms:

The unique structure of the Indian textile industry is due to the legacy of tax, labor, and other regulatory policies that have favored small-scale, labor-intensive enterprises, while discriminating against larger scale, more capital-intensive operations. The structure is also due to the historical orientation towards meeting the needs of India's predominately low-income domestic consumers, rather than the world market. Policy reforms, which began in the 1980s and continued into the 1990s, have led to significant gains in technical efficiency and international competitiveness, particularly in the spinning sector. However, broad scope remains for additional reforms that could enhance the efficiency and competitiveness of India's weaving, fabric finishing, and apparel sectors.

Structure of India's Textile Industry

Unlike other major textile-producing countries: India's textile industry is comprised mostly of small-scale, nonintegrated spinning, weaving, finishing, and apparel-making enterprises. This unique industry structure is primarily a legacy of government policies that have promoted labor-intensive, small-scale operations and discriminated against larger scale firms:

Composite Mills: Relatively large-scale mills that integrate spinning, weaving and, sometimes, fabric finishing are common in other major textile-producing countries. In India, however, these types of mills now account for about only 3 percent of output in the textile sector. About 276 composite mills are now operating in India, most owned by the public sector and many deemed financially "sick."

Spinning: Spinning is the process of converting cotton or manmade fiber into yarn to be used for weaving and knitting. Largely due to deregulation beginning in the mid-1980s, spinning is the most consolidated and technically efficient sector in India's textile industry. Average plant size remains small, however, and technology outdated, relative to other major producers. In 2002/03, India's spinning sector consisted of about 1,146 small-scale independent firms and 1,599 larger scale independent units.

Weaving and Knitting: Weaving and knitting converts cotton, manmade, or blended yarns into woven or knitted fabrics. India's weaving and knitting sector remains highly fragmented, small-scale, and labor-intensive. This sector consists of about 3.9 million handlooms, 380,000 "power loom" enterprises that operate about 1.7 million looms, and just 137,000 looms in the various composite mills. "Power looms" are small firms, with an average loom capacity of four to five owned by independent entrepreneurs or weavers. Modern shuttleless looms account for less than 1 percent of loom capacity

Fabric Finishing: Fabric finishing (also referred to as processing), which includes dyeing, printing, and other cloth preparation prior to the manufacture of clothing, is also dominated by a large number of independent, small scale enterprises. Overall, about 2,300 processors are operating in India, including about 2,100 independent units and 200 units that are integrated with spinning, weaving, or knitting units

Clothing: Apparel is produced by about 77,000 small-scale units classified as domestic manufacturers, manufacturer exporters, and fabricators (subcontractors).

Overview of the Indian Power Loom Sector:

Overview of the Indian Power Loom Sector India manufactures 5% of cloth through organized sector, 20% through Handloom sector, 15% through knitting sector and 60% of Indian cloth is produced through decentralized power loom sector. The decentralized power loom sector is the lifeline of Indian Textile Industry.

5. Review of Literature

Chaudhary, Saini, and Solanki (2015), attempted to understand the different problems of Handloom & power loom industries in Uttar Pradesh. The researchers opined that there is no appropriate marketing method in the handloom & Power loom Industries in Uttar Pradesh and the price of the yarn and fabric always fluctuates. Authors are argued that the middle man play critical role in marketing factors, infact they enjoying the main profit.

Muthu, (2015), examined the growth prospects of power loom sector and cloth production of decentralized power loom sector in India during the period between 2006-07 and 2012-13. The study shows that number of power looms was increased in this study period and government support has been continuously increasing for this sector. The suggestion has given to government to focus on technology up gradation and modernization of power loom service centres.

Sultana and Nisa (2016), Study reveals explored the socio economic conditions of the power loom weavers in the Mau city. Due to low manufacturing output the socio economic condition of weavers is going down. Researchers found many reason for low socio economic condition like poverty, lack of literacy, low electricity supply, lack of government support etc. and further researchers opined that, there is an immediate support from government to strengthen the power looms.

Suresh and Mangalam (2016), Attempted to evaluate the functioning of Power loom industry and the features influenced on successful operation of Power loom industries in Tamilnadu. The primary data collected through the entrepreneurs of power loom industries in study area. The researchers opined that the machinery they are using almost obsolete in nature and technology should be improved among the power loom entrepreneurs.

Khan and Sultana (2016), studied on socio economic development of power loom industry workers. The study focused on importance of income, debts, and savings of power loom workers. With the government support change can be bring in development of workers. The researchers observed that since decades Power loom weavers continue to commitsuicide because of financial crisis which has affected their Socio economic position. With the intervention of government can make changes in socio economic conditions of power loom workers.

Sudha and Sarvanaraj (2016), study focused on issues of Tamilnadu's Power loom industry. The authors conducted SWOT Analysis of Power loom Clusters and the study explained position of power loom industry in Tamilnadu.

Rani and Thilagavathi's (2017), Study focused on problems of power loom industries. The surveyed data shows that some problems are facing by power loom industries like financial, environmental and raw material problems.

6. Objectives of the Study

- To know the effects of COVID-19 on socio-economic conditions of power loom workers
- To study the impact of COVID-19 on the operations of the power loom sector of in Major District in Tamilnadu.
- To find the challenges or constraints faced by the power loom owners due to COVID-19 owners Lockdown.
- To offer suggestions for the betterment of powerloom industry.

7. Methodology

Secondary Data

Secondary data has been collected from Government publication reports, text books, Articles,

Primary Data

The primary data is obtained from Power loom units of selected study area. Papers, Journals, and Magazines etc. The primary data have been collected through well structured questionnaire, personal interviews, discussions and observations.

Selection of the Study Area and Sample Size.

Erode District, Tiruppur district, Namakkal district, Coimbatore District is one among the industrially developing districts. The district is well known for marketing of textile products of Handloom, Powerloom and Readymade Garments. The Handloom and Powerloom products such as Cotton Sarees, Bed Spreads, Carpets, Lungies, Printed Fabrics, Towels and Dhosis are marketed here in bulk. The district now has over 40,000 powerlooms, which manufactures about 47% of state's total textile needs. To boost the powerloom sector, the State Government had given approval for the establishment of the Erode Mega Powerloom Cluster, comprising a marketing complex (Texvalley) and a manufacturing cluster, at Gangapuram near Chithode in Erode district. The selected study area is in Tamilnadu State in India. Randomly 100 respondents were selected from Erode, Coimbatore, Tiruppur, Namakkal district in areas of Tamilnadu on the basis of maximum number of Power loom entrepreneurs

Techniques of Data Analysis

The data obtained from the field survey have been processed and compiled in suitable tables so as to derive appropriate inferences and conclusions. SPSS statistical tool has been used in data analysis to interpret data on basis of percentages and frequency.

8. Limitations of the Study

The study is limited only in TamilNadu. The conclusions must be drawn in due care when attempt is made to generalize the results. Further survey method was adopted for collecting data for this study, which has its own limitations. The respondents do not maintain any records and so they had to recall and furnish the information for the query put forth by the researcher. Hence, the present research the study confines to the power-loom sector

only, leaving the handloom sector untouched. The area covered for the present study is restricted only to the range of Tamilnadu.

Table- I PROBLEMS FACED BY THE OWNERS OF POWERLOOM SECTOR

Factors	Mean	Std Deviation	Mean Rank	Chi-square	df	Sig
Non-Availability of Raw Material	2.81	1.106	7.35	261.77	8	.000
Lack of expansion and modernization	2.72	1.091	5.23			
High rate of interest on loan	2.41	1.071	6.32			
Inadequate transport facilities	2.65	1.155	6.17			
Power holidays	2.64	0.999	7.45			
Labour problems	2.69	1.056	6.34			
Lack of Government support	2.63	1.185	6.28			
Price fluctuation in raw material	3.48	0.862	6.14			
Shortage of skilled labour	2.29	1.058	4.98			

The Results of Friedman’s Chi-square test showed that there is significant difference in the various problems faced by the owners of powerlooms sector ($X= 261.77; <0.05$). the mean ranks revealed the fact that the owners of powerloom sector are greatly affected by erratic Technical labour problems and price fluctuation of Raw Material is highly affected the power loom sector.

Data Analysis and Interpretation

Table 2: Age Wise Classification of Respondents

S.No	Age Groups	Number of Respondents	Percentage
1	Up to 25 yrs	06	6.00
2	25 to 35yrs	14	14.00
3	35 to 45 yrs	10	10.00
4	45 to 55 yrs	16	16.00
5	55 yrs and above	54	54.00
6		100	100

In the above Table 1 it is clear that, almost mixed age group respondents were engaged in the power loom units. Majority of 54.00 per cent of respondent were in the age group more than 55 years, 16.00 per cent respondent were between 45 to 55years age group, 14.00 per cent of respondent were coming under 25 to 35 years age groups, 10.00 per cent of respondent were between 35 to 45 years age group, finally only 6.00 per cent of respondent were coming under up to 25 years age group.

Table 3: Educational Qualifications

S.No	Qualification	Number of Respondents	Percentage
1	Upto 7th	9	9 %
2	Upto 10th	14	14%
3	Above PUC	39	39 %
4	Above Degree	11	11%
5	illiterate	27	27 %

	Total	100	100
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Table 2 Level of education of the head of the house hold member of the family also determines the performance of power loom units. In above chart shows that 39.00% of respondents were having education qualification above PUC, 27 respondents were illiterate. 14% or Respondents were Up to 10th, 11% respondents were qualified above degree, 9% respondents have up to 7th level education.

Table 4: Number of Power Looms Owned

S.No	Number of Power loom owned	Number of Respondents	Percentage
1	Up to 15	55	55
2	15 to 20	25	25
3	21 and Above	20	20
	Total	100	100

Table 5: Production Problems Facing by Power loom units during COVID-19 Lockdown

S.No	Qualification	Number of Respondents	Percentage
1	Scarcity of raw materials	35	35 %
2	Labour Problem	25	25 %
3	Shortage of power	5	5%
4	Transport problem	20	20%
5	High Cost of Raw Material	9	9%
6	No Orders	6	6%

In above Table 6 prevails the problems facing by respondents in production during the lockdown period which are adverse affect to entrepreneur performance in production. 35.00 per cent of respondents were faced the Scarcity of raw material problem due to lockdown, , 25.00 per cent of respondent have mentioned non-availability of Technical labour, 20.00 percent of the respondents were facing transportation problem, 9.00 percent respondents were facing the problem of high cost of raw material due to non availability in the market and 6.00 per cent of respondents were not having problem of no orders for the finished products.

9. Findings of the Study

- The study found that all the power loom units are closed down due to severe impact of COVID-19 lockdown.
- Majority of the units do not have stock of raw material to start over the operations immediately after completion of lockdown
- The study shows that power loom owners are broken financially and the Government support to overcome this difficult situation
- The skilled workers, who have worked at these power looms for generations, have been hit hard by the severe effect of COVID-19 lockdown as all the looms have become silent
- It is observed in the study that the sector has also been deprived of earning with
- The analysis shown that the power loom sector is scared on account of cash crunch, supply chain disturbance and man power related issues.

10. Suggestions

- The Central and state government has to announce extra package for the power loom industry during the Covid- 19 pandemic period.
- Banks and other financial institutions need to come forward and help the power loom sector to overcome this pandemic situation.
- The government has to do something for the labour who hit severely due to lockdown
- Finally, Government need to provide more financial provisions to power loom entrepreneurs to sustain in this critical situation.
- 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.
- To promote e-marketing of handloom products, a policy frame work was designed and under which any willing e-commerce platform with good track record can participate in online marketing of handloom products. Accordingly, 23 e-commerce entities have been engaged for on-line marketing of handloom products.

□ In the face of the unprecedented Covid-19 pandemic, it is not feasible to hold conventional marketing events such as exhibitions, melas, etc. To deal with this crisis, the Government endeavors to provide online marketing opportunities to our weavers and handloom producers.

11. Conclusion

The powerloom industry exhibits extreme diversity in terms of products, modes of production, as well as in relations within the production structure. The Power loom Industries have gained a lot of significance on account of several factors particularly due to rapid Development and balanced growth in rural and backward area in Tamilnadu. The study has proved that power loom sector operations and Government policy scheme engaged and motivated for on-line marketing of handloom product during the COVID-19 lockdown period. It reveals the current situation of power loom owners as well as the labours who were working there. A proper rejuvenating measure should be initiated to safeguard the power looms industry which is second largest business sector in India which is one of the major contributor to the economy in terms of production, employment and export. This should be the starting point for government policy exercises, which should come to recognize regional specificities as the greatest strength and provide concession for raw material purchase and free tax benefits, marketing facilities for development of the power loom industry.

References

1. Journals and Magazines
2. Agarwal R.K (2006), Customs Cut to Boost Textiles Industry, Man Made Textiles in India, Vol. 50(3).
3. ArunJariwala, (2007) Power loom Sector in India - An overview of the present developments and shape of things to come, Textile Review, Vol. 2 (6).
4. Credit news digest on India's textile by sector India Ratings and Research (Ind-Ra), February 2020 edition.
5. Raghavendra Hajgolkar and Talwar Sabanna (2017)
6. Government of Tamilnadu (2010-11), Department of Handlooms and Textile, Policy Note No.17
7. Books
8. Saksena, K.D (2002), "Dynamics of Indian Textile Economy Towards A Pragmatic Textile Policy", Shipra Publications, New Delhi.
9. Jitendra S. B. (2009). Assessing the Prospects of India's Textile and Clothing Sector. New Delhi : National Council of Applied Economic Research
10. Web Portals
11. Profile of the Indian Cotton Textile Industry, Cotton Textile Export
12. Promotion Council (www.texprocil.com)□
13. Shubha Madhukar (2004), www.domain-b.com/industry/textiles.
14. Reports and Dissertations
15. Government of India (2008-09), Annual Report of Ministry of Textiles, New Delhi
16. Thesis on Analysis of performance of power loom sector-2014
17. Government of Tamil Nadu (2009-10), Department of Handlooms and Textiles, Policy.
18. Government of India (2008-09), Annual Survey of Industries, Ministry of Statistics, New Delhi