Problems and Prospects of Powerloom Industry - A Case of Gadag District

Abstract:

The handloom industry has been one of the oldest industries of India. Although the industry was reduced to ashes during the colonial rule but it got tremendous boost up after the Independence during the planning era. The industry today provides employment to about 10 million people and contributes over 23 per cent of the total cloth production of the country.

The production of handloom and powerloom cloths has increased from 5,085 million square meters in 1990-91 to 10,381 million square meters in 1997-98, exhibiting more than two-times increase during the last seven years.

The number of handlooms is estimated to be about 38 lakhs and of power looms 3.4 lakhs. The industry provides employment to over 60 lakh workers and produces Rs. 1,000 crores worth of goods annually.

The handloom industry is widely distributed in the country, mostly concentrated in small towns and rural areas. Five states like Tamil Nadu, Orissa, Uttar Pradesh, Assam and Andhra Pradesh account for over 50 per cent of the production capacity. Among other states Manipur, Maharashtra, West Bengal, Nagaland, West Bengal, Kerala, Rajasthan, Haryana, Jammu and Kashmir, Rajasthan, Madhya Pradesh and Karnataka are important for handloom industry. The power looms are mostly concentrated in Maharashtra, Gujarat, Madhya Pradesh, West Bengal and Tamil Nadu which are also important for textile mill industry.

INTRODUCTION

In order to give boost up to the handloom industry, a scheme was introduced in 1992-93 to develop 3,000 handloom development centers and 500 quality dyeing units which will benefit 30 lakh weavers. During the year 1997-98, 260 handloom development centers and 78 quality dyeing centers have been sanctioned. An integrated Village Handloom Development
Scheme, project packaging scheme and National Silk Yarn Scheme were launched between 1991-95 with an outlay of Rs.63 crore and Rs.20 crore respectively for the Eighth Plan period.

A project of development of handloom products using jute fiber titled 'Development and Transfer for Technology for use of Jute Fiber in Handloom Textiles' was sanctioned by the Government during 1993-94 with an outlay of about 10.30 crore. Besides, a scheme for setting up jute handloom development centers was introduced in January 1995.

The decentralised power loom sector plays a pivotal role in meeting clothing needs. It contributes about 72.6 per cent (including hosiery sector) of total cloth production in the country as against 5.5 per cent by mills and 21.7 per cent by handloom sector.

In order to develop this sector, the Government has launched various schemes like setting up of Power loom Service Centre (PSC), Computer Aided Design Centre (CAD), Power loom Workers Insurance Scheme, Power loom Development Export Promotion Council.

**Evolution of weaving looms:**

History of weaving looms can be traced back to 17th century. The first power loom was invented by Edmund Cartwright in 1785. Originally Power looms were with shuttle, and they were very slow. But as the industrial demands for faster production accelerate, faster looms without shuttle came in use in early part of 20th century. As developments and innovations take place, various types of looms were developed for faster production. Today, Air-jet, Water-jet, Rapier and other computer operated looms are used to maximize production of special materials.

**Indian scenario of weaving looms:**

Though weaving is one of the important sector for Indian textile industry, it has not been given due attention like spinning sector. Moreover structure of the industry plays a major role in making it competitive. Nature of this sector is mainly unorganized. The sector consists of fragmented, small and often, un-registered units that invest low amount in technology and practices especially in the power loom, processing, handloom and knits. India has world’s largest installed base for looms. There are approximately 5mn looms in the country. India has 1.8mn Shuttle looms which is 45% of world capacity, and 3.90mn handlooms which is 85% of world capacity.
**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. (Texmin, 2005). 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.

**Shuttleless looms:**

Shuttleless weaving looms are up to three times more efficient than shuttle looms, but the penetration of modern shuttleless loom is very less. In 2001, there were some 27,000 shuttleless cotton looms in Indonesia, 21,000 in Thailand and 10,000 in India. In world share of shuttleless looms India ranked 9th. Following chart shows comparison of shuttleless loom proportion of India with other countries. A impracticable remarked power loom or perish, which implies Power loom Industries play an important role in the economic development of any nation. Without Power loom industries, economic development is impossible. Development of industries are not only indispensible for India, but also there is good scope for the development of industries. India has many favorable and conductive factors for rapid development of industries. Again in a developing economy like India, industries are indispensable.

The development of Power loom Industries in Gadag District sector contributes to the expansion of existing employment, output and export and fostering Industries, so as to fulfill the socio economic objectives of the nation for balancing the regional
development especially in rural, semi urban and backward area. Rapid Power loom Power loomization will contribute to the growth of large number of Power loom Industries in Gadag.

Amid the previous five decades, Power loom Industries in Gadag District have gotten extraordinary consideration during the time spent Power loomization and local improvement in a large portion of the creating nations. Power loom Industries have in this manner, a vital task to carry out in program of improvement. The Power loom Industries in Gadag District essentially, are in vogue since they are accepted to gangs certain uncommon highlights viz., less capital escalated, more work concentrated, embrace ideal innovation, scatter in provincial and in reverse territories, diminish local uneven characters. Adaptable in activity, send out orientated, generally spread business and impartial convey the financial abundance of the nation. The Power loom Industries in Gadag District assume a critical job in the assembling most recent assets, streamlining capital, making conceivable quick increment underway, fare, business and enterprise.

The Power loom Industries in Gadag District segment throughout the years has developed consistently and involved an imperative spot in the economy. Commitment of the segment as far as age of work amid the period 2015-2018 remained at 64.64 lakhs. Yield of Rs 61,324 crores and fare of Rs 63,968 cores are very critical.

**Statement of the Problem**

Vital objectives behind fostering Power loom Industries in Gadag District development in our country is to initiate regional imbalance by countermanding or neutralizing as for as Power loom Industries polarization of Power loom activities within developed regions. A balanced regional development through locational dispersal of industries has been one of the principal objectives of the Power loom Industries five year plans. One of the Encouraging Power loom Industries in Gadag District development in backward areas ensures maximum utilization of local resources.
both human and material and in consequence helps to bridge inter-regional gaps. The government policies and plans recognize the Power loom Policy programme as a tool for rapid Power loom through decentralization of Power loom Industries in Gadag District to rural and backward areas. The government policies and plans recognize the Power loom Policy programme as a tool for rapid Power loom through decentralization of Power loom Industries in Gadag District to rural and backward areas. With a view to achieve this, the government has provided various incentives and Power loom Industries from time to time.

The share of rural and semi urban Power loom areas to total functioning Power loom areas stood around 6 to 32 percent and 17 to 30 percent respectively by the end of 70’s. While the share of urban stood around 31 to 41 percent. By the eleventh plan document, one can observe that the number of Power loom areas and areas are fairly large, but their functioning has not been uniformly satisfactory and, sheds and plots developed have not been fully occupied and become functional. In spite of this development, at the end of eleventh plan 2012-2018, the units in Power loom areas in the country have contributed for 9 percent of estimated total output of SMSI, 12 percent of the total employment generated by the Power loom Industries in Gadag District sector. In addition to that, the performance of semi-urban and rural Power loom areas has been relatively less encouraging.

The low utilization of sheds erected in the Power loom Industries and the lack of occupants in Power loom Industries in backward area would indicate the need for reappraisal of the content and place of the programme. Besides this, the growth of small Industries industry has not been taken place to the desired extent. Shortage of skilled labour, poor infrastructure facilities, etc., have inhibited the development of Power loom Industries in Gadag District in Power loom Policy in the state.
Moreover, the entry of multinationals to the Indian Power loom scene is a major threat to the small units. Now they have to improve themselves in terms of quality to face the competition by multi-national companies and become successful. Under these circumstances, a study on challenges and strategies in Developing Power loom Industries in Gadag District in Power loom areas housed under the umbrella of Karnataka State Industries Development Corporation Limited is more keenly felt.

The study provides useful suggestions to the policy-makers of the Government to revamp existing visions towards SMSI in Power loom divisions. A micro study like this has not been carried out by any other researchers so far and documented. Hence, the present study is a pioneering one throws light on the issues like evaluation of the performance of Power loom Industries in Gadag District to plug the results to the future prospects. The next 47 years until a design by Kenworthy and Bullough made the operation completely automatic. This was known as the Lancashire Loom. By 1850 there were 260,000 in operation in England. Fifty years later came the Northrop Loom that would replenish the shuttle when it was empty and this replaced the Lancashire loom.

The major components of the loom are the warp beam, heddles, harnesses, shuttle, reed and takeup roll. In the loom, yarn processing includes shedding, picking, battening and taking-up operations. Shedding. Shedding is the raising of the warp yarns to form a loop through which the filling yarn, carried by the shuttle, can be inserted. The shed is the vertical space between the raised and unraised warp yarns. On the modern loom, simple and intricate shedding operations are performed automatically by the heddle or heald frame, also known as a harness. This is a rectangular frame to which a series of wires, called heddles or healds, are attached. The yarns are passed through the eye holes of the heddles, which hang vertically from the harnesses. The weave pattern determines which harness controls which warp yarns, and the number of harnesses used depends on the complexity of the weave. Two common methods of
controlling the heddles are dobbies and a Jacquard Head. A loom from the 1890s with a dobbey head. Illustration from the Textile Mercury.

Rev Edmund Cartwright's invention of the power loom, this used water as power then steam power. It speeded up weaving process. Weavers were able to use all the thread that spinners could produce. His modifications to the loom he patented in 1785 was described in his own words. It was to be forty years before his ideas were modified into a reliable automatic loom. Cartwright was not the first man to design an automatic loom, this had been done in 1678 by M. de Gennes in Paris, and again by Vaucanson in 1745, but these never developed and were forgotten. Those designs preceded John Kay's invention of the flying shuttle and they passed the shuttle through the shed using levers. It was not a commercially successful machine. His ideas were licensed first by Grimshaw, of Manchester who built a small steam-powered weaving factory in Manchester in 1790. The looms had to be stopped to dress the warp, but the factory burnt down before anything could be learnt. A series of inventors incrementally improved all aspects of the three principle processes and the ancillary processes.

Grimshaw 1790 Manchester- dressing the warp

Looms and the Manchester context

The development of the power loom in and around Manchester was not a coincidence. Manchester has been a centre for Fustians by 1620 and acted as a hub for other Lancashire towns, so developing a communication network with them. It was an established point of export using the meandering River Mersey, and by 1800 it had a thriving canal network, with links to the Ashton Canal, Rochdale Canal the Peak Forest Canal and Manchester Bolton & Bury Canal. The fustian trade gave the towns a skilled workforce that was used to the complicated Dutch looms, and was perhaps accustomed to industrial discipline. While Manchester became a spinning town, the towns around were weaving towns producing cloth by the putting out system. The business was dominated by a few families who had the capital needed for the investment in new mills,
and buy hundreds of looms. The mills were built along the new canals so immediately had access to their markets. Spinning developed first, and until 1830 the handloom was still more important economically than the power loom when the roles reversed.[4] Because of the economic growth of Manchester, a new industry of precision machine tool engineering was born and here were the skills needed to build the precision mechanisms of a loom.

Draper's strategy was to standardise on a couple of models which it mass produced. The lighter E-model of 1909 was joined in the 1930 by the heavier X-model. Continuous fibre machines, say for rayon, which was more break-prone, needed a specialist loom. This was provided by the purchase of the Stafford Loom Co. in 1932, and using their patents a third loom the XD, was added to the range. Because of their mass production techniques they were reluctant and slow to retool for new technologies such as shuttleless looms.[6]

**Decline and reinvention**

Originally, power looms used a shuttle to throw the weft across, but in 1927 the faster and more efficient shuttleless loom came into use. Sulzer Brothers, a Swiss company had the exclusive rights to shuttleless looms in 1942, and licensed the American production to Warner & Swasey. Draper licensed the slower rapier loom. Today, advances in technology have produced a variety of looms designed to maximise production for specific types of material. The most common of these are Sulzer shuttleless weaving machines, rapier looms, air-jet looms and water-jet looms.

**Social and economic implications**

The power loom reduced demand for skilled hand weavers, initially causing reduced wages and unemployment. Protests followed its introduction. For example, in 1816 two thousand rioting Colton weavers tried to destroy power loom mills and stoned
the workers. In the longer term, by making cloth more affordable the power loom increased demand and stimulated exports, causing a growth in industrial employment, albeit low-paid. The power loom also opened up opportunities for women mill workers. A darker side of the power loom’s impact was the growth of employment of children in power loom mills.

**Definition and Justification for Power loom Small and Medium Industries**

The Power Loom has been appointed an exceptional job in the post autonomy modern economy of the country. The recovery and restoration of these modern has been a vital target of organizers. This has been by virtue of a portion of the intrinsic points of interest of the division, similar to low capital power, high business age, decentralized mechanical action and extending of the innovative base. The worry and endeavors of the state to advance this segment are likewise reflected in different mechanical approach goals since 1948 to New Power loom Policy of 2016-2021.

Gandhi has initially persuaded Power loom Industries in Gadag Districts the best instrument for giving solid articulation to the 'Swadeshi Spirit' and his adherents likewise supported and acknowledged that the idea of Power loom Industries in Gadag District may utilize different specialists, and may use the power.

**REVIEW OF LITERATURE:**

Review of the literature is the backbone of any empirical work and it presents scanning of related literature pertaining to the study. There are certain studies undertaken at the individual and institutional level relating to the growth of entrepreneurship in small and tiny industrial units. The findings of the study enabled the researcher to identify some concepts for the present study. Reviews of such studies have been presented here.

1. **Reath (1999)**, in their study entitled “A Classification of Hand-Loom Fabric” outlines modern textile manufacturers have borrowed the traditional names of certain types of
fabrics and applied them to Powerloom products which bear but a superficial resemblance to the original stuffs.


3. M.M. Mahta (2000) studied the trends in size of cotton spinning and weaving units at different clusters like Bombay (Mumbai), Ahmedabad, Madras (Chennai) and other important clusters of the country for the period of 1905 to 1944. He emphasised on the size of the industrial units in weaving industry.

4. S.V. Chorghade (2001) in his research work studied the “Powerloom Industry In Maharashtra”. Maharashtra state has a lion’s share in the growth and development of the Powerloom industry. He attempted to undertake a detailed study of structure and problems of Powerloom industry in Maharashtra.

5. Cantillon (2001) was probably the first to introduce the term entrepreneurs and applied it to the individuals engaged in production (with inputs of land, labour and capital) of goods for the market place.

6. Schumpeter (2002) a new idea had later emerged which defines entrepreneurship and entrepreneurs. As the means (or) instruments by which the economy and society are transformed and improved. He clarified entrepreneur as an innovator with potentialities of doing new things as an economic leader, and a chief conductive function in the process of economic development.

7. Robinson (2003) finds “entrepreneurs were not found to be the simple innovators rather they were the persons with the will to act, to assume risks and to bring about change through the organization of human efforts. The definition of entrepreneurs had passed through a great development age and was improved upon by incorporating the terms like ambition, energy and mitigation.”

8. Minami (2004) emphasizes, the electrification promoted the use of motor-driven machines in Japan, which led to rapid decentralized industrialization in the early 20th century Japan. Although this study does not analyze the development of this weaving district in the subsequent periods, it is known that many WMCs actually followed the factory production system introduced by the joint stock firms and used power looms, which meant the demise of the out-weaving systems in favor of factory systems in this weaving district.
9. P.R. Ojha (2004) studied the dividend distribution of 51 cotton textiles companies. He analysed the dividend distribution of the companies on the basis of size, region, ownership group, management pattern and age of the companies.

10. Arulanandam (2005), in “The study of Handloom Industry in Tamilnadu” has made an attempt to study the various aspects of the handloom industry in Tamilnadu. A coherent picture of the industry in Tamilnadu by analyzing the structure and organizational set up, local production techniques internal marketing problems, export potential and the role of co-operatives has been given in it.

11. Rakesh Khurana’s (2006) the book entitled, “Management of Decentralized Sector: A case of Handlooms” serves as a background to the handloom sector in particular. It deals with production and project management. Besides, there is a deep analysis of concepts like production mill, raw material management and project formulation in it. Moreover, it comprehensively deals with the marketing problems, planning, controls, organizational structure, human resource management and the ideal and practical corporate strategy. Even though the book is primarily focused as the case study of the handloom sector, the author has laid the foundation for the programmes for management development in the decentralized sector.

Objectives of the Study

Power loom Industries pays a major fragment of India’s Textile texture specially in Gadag District. It is the greatest division giving business chances to the Indian loom Industries. 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.

In the perspective on the abovementioned, the present investigation is done with the beneath referenced targets is relied upon to toss a light on act, issues, prospects and issues identifying with business in Power Loom Industries in Gadag District especially in Power Loom territories that have stayed lethargic and turned out with recommendations for execution at various dimensions for growing right kind of Power
Loom enterprise required in provincial and in reverse zones. To investigate the execution of Power Loom in the development of units in Gadag Districts

1. Growth and development of Power Loom Industries in Gadag District.
2. To enquire into the socio economic background of Power Loom Industries entrepreneurs emerging in Gadag Districts.
3. To Study the Power Loom Industries efforts and performance in Gadag District.
4. To study the problems being faced by the Power Loom Industries in Gadag Distrit and Karnataka state.
5. To evaluate the Performance and Prospects of Power Loom Industries in the state.
6. To offer suggestions based on findings.

Hypotheses of the Study

So as to accomplish the above goals, the accompanying speculations have been set for the investigation.

1. The locational advantage have its own effect on the business people execution.
2. The family foundation of the business people has its own effect on the enterprising execution.
3. The pioneering execution is affected by the Power loom Industries to which they have a place.
4. Formal training has affected the effective business.
5. The much better execution of the business visionaries is influenced by such a significant number of issues.

Methodology and Sampling Design

Power Loom Industries in Gadag District with the capital not exceeding Rs.500 lakhs Small and Medium Industries with the capital not Power Loom Industries Rs.500 lakhs which incorporates modest units, auxiliary ventures, send out arranged businesses, ladies endeavors, Power Loom administration units have been considered for the assessment of execution, issues and prospects of Power Loom Industries in Gadag
District. So as to test the speculations and meet the targets of the examination, the information has been gathered from the both essential and optional sources.

**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 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 spread in Gadag districts of Karnataka State. The study is confined to Power Loom Industries in Gadag District functioning in Power Loom areas of SMSI in Karnataka State. Moreover, the researcher hails from the same state and problems can be better perceived.

**Analysis of the Data**

So as to demonstrate the deductions or invalidate the theories, the information gathered was dissected with the Power Loom Industries assistance of factual procedure like proportions, rate, development rate, weight focuses and positioning strategy.

**Limitations of the Study**

The study is confined to Power Loom units in Gadag district only, since the units are facing identical problems and enjoying identical facilities. Moreover, time and money constrains have also affected the researcher’s decision to limit the study the Power Loom Industries. Lack of knowledge about the importance of research among the respondents also affected the study. Some Exporters are reluctant to give the data due to known and unknown reasons. The analysis of data is purely based on the information given by the respondents during field survey.
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Conclusion

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REFERENCE


