Plotting and Studying the Problems Faced by the Handloom Industry Using Ishikawa Diagram

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Abstract

Handloom industry is a traditional and also a cottage industry in India. It provides employment to the large section of poor people. However, the role and significance of the industry to the national development is declining. In fact, the industry is facing lot of problems such as men, material, methods, machines, money, marketing and management. In this article, the problems faced by the industry and the solutions to solve the problems are plotted in Ishikawa diagram and presented.

Key words: Handloom industry, Ishikawa diagram, Priority rating.

Introduction

Handloom industry is a cottage and rural based industry and the handlooms are part of an age old Indian tradition. 35 lakhs handlooms still exist in the country and 65 lakhs people are engaged in the profession. This industry contributes 15 per cent of the total cloth produced in this country. There are 470 Handloom clusters spread in all over the country in highly decentralized manner. Indian handloom industry is the largest in the world and it is low capital intensive industry.

Conceptualization of the Problems

At present, in the whole of Textile industry, the Handlooms - cottage sector has to co-exist with other two sectors, namely unorganized power loom sector and organized mill sector. If we look at globally, due to the huge competition of these two sectors, many developed countries gave up the handloom industry, and there are no handlooms exist at present in many of the countries. In India also, number of handlooms in different clusters is decreasing day by day. In the last fifteen years it has come down to 43.32 lakhs from 65.5 lakhs Handloom workers engaged in this sector. As the handloom industry occupies an important place due to the economic importance, it has been realized that India cannot leave away this industry as other countries did it. On the other hand, India has to pay much more attention to safe guard this industry.

The causes for declining of handloom industry with respect to men, material, machines, methods, money, marketing and management categories have to be grouped in order to find the corresponding remedies. This type of analysis will help to effectively address and solve the problems faced by the handloom industry. Ishikawa - Fish Bone Diagram, which is one of the problem solving tools of the Total Quality Management (TQM), is used to plot the problems and identify corresponding solutions.

Ishikawa – Fish Bone Diagram – A Quality Control (QC) Tool

Industries commonly use the seven quality control tools known as “7 QC Tools” for problem solving. They are Brain storming, Histogram, Check sheets, Pareto diagram, Ishikawa diagram, Control charts, and Scatter diagram. The Japanese quality expert “Ishikawa” formulated a diagram and called by his name, which is helpful to represent the problems and remedies of an organization in a diagrammatic way. The basic lines drawn to represent the categories and sub categories in the diagram looks like the bone of the

Fish and hence it is also called "Fish Bone Diagram". The major categories, under which the problems and the solutions can be grouped, are listed first. The problems under each category are listed next. Keeping the problem diagram, the solutions are also analyzed and they can be also represented in the same diagrammatic way. Fish Bone diagram helps in understanding the problems of the industry in collective and comparative way. It also helps to find out the solutions in the similar manner. The solutions of the problems are then implemented and the results are interpreted.

Problems faced by the Handloom Industry and its Solutions

In the old method, the problems faced by the Handloom industry are listed under different heads like Man power, Material, Machines, Methods, Money, Market, and Management. The corresponding solutions suggested by a section of people are collected. The problems and the corresponding solutions are presented in the form of Table.

In the 'Ishikawa – Fish Bone Diagram' method, the first diagram showing the problem faced by the industry is prepared and used as questioner. It is supplied to the different section of people in the industry inviting them to suggest solutions to the problems as per their point of view. The collective solutions are also presented in the form of second diagram. A table and the two diagrams are shown below for example.

Table – 1

PROBLEMS	SOLUTIONS
Man Power • In many clusters, only old age people do the Handloom weaving. • Young people are not taking weaving craft as their profession.	• The old generation has to transfer their skills to the youths. • Uneducated and less educated youths can very well be encouraged to take up the weaving profession as self employment venture.
Material • Handlooms are not meant for producing ordinary cloth with medium count yarn. • They are still producing proto type fabrics, which become boring to Customer.	• Handloom can produce very intricate fabrics either finer or coarser counts. • Diversified and value added products are possible to weave in handlooms.
Machines • Trained weavers are also continuing to weave simple plain fabric. • They are using very old gadgets, which make them to feel more strain.	• After practicing weaving for two/three years they must use Jacquard and Dobby. • The weavers must use technically improved, ergonomic devices.
Methods • They are not familiar with the Techniques like Tie-dye and Natural dyeing. • They are not upgrading their skills time to time to switch on to fine weaving.	• Intricate techniques and Traditional values have to be transformed as per new trends. • They must be imparted training to upgrade their skills to produce value added items.

Money • Weavers are not paid as per their skills. They are less exposed to the other clusters. • They are unable to start their own business in small scale.	• Weavers have to be paid on par to their capacity and competency. • They must be encouraged by banks to avail loans to stand on their own legs.
Market • Weavers are mostly dependent on middleman to market their products. • They have very poor marketing and Sales knowledge.	• Direct market linkage has to be created between weaver and wearer. • They must be imparted training in marketing and sales activities.
Management • Handloom units have poor linkage chain from raw material to finished products. • The weavers do not know the strength of collective bargaining system.	• Cluster formation and group approach methodologies have to be adopted. • Their confident and capacity have to be built up through workshops and seminars.

The above mentioned problems have been plotted in the Ishikawa diagram – 1 and the solutions have also been plotted in the Ishikawa diagram – 2

Diagram – 1
Ishikawa Diagram showing the different Problems faced by the Handloom Industry

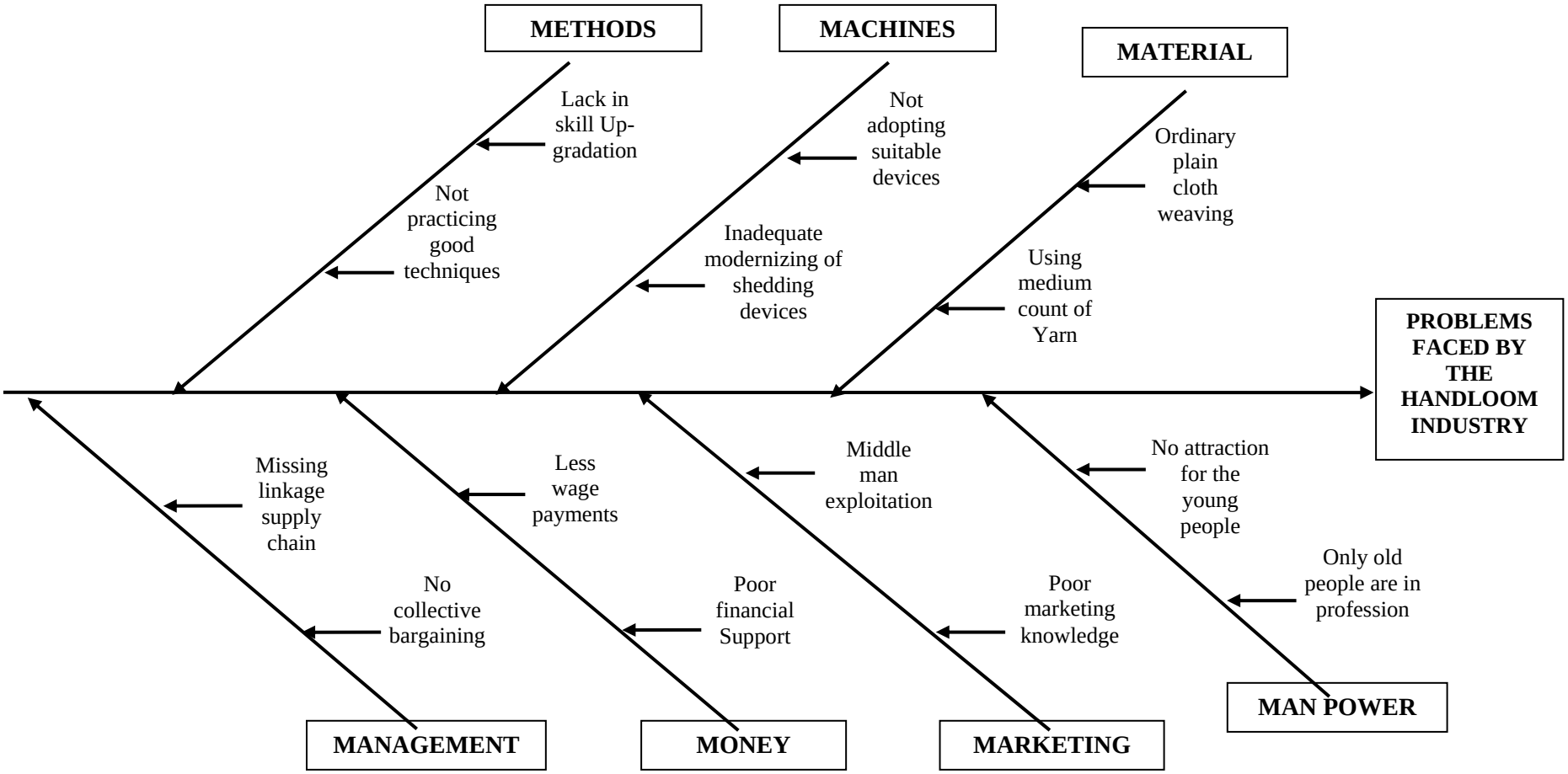
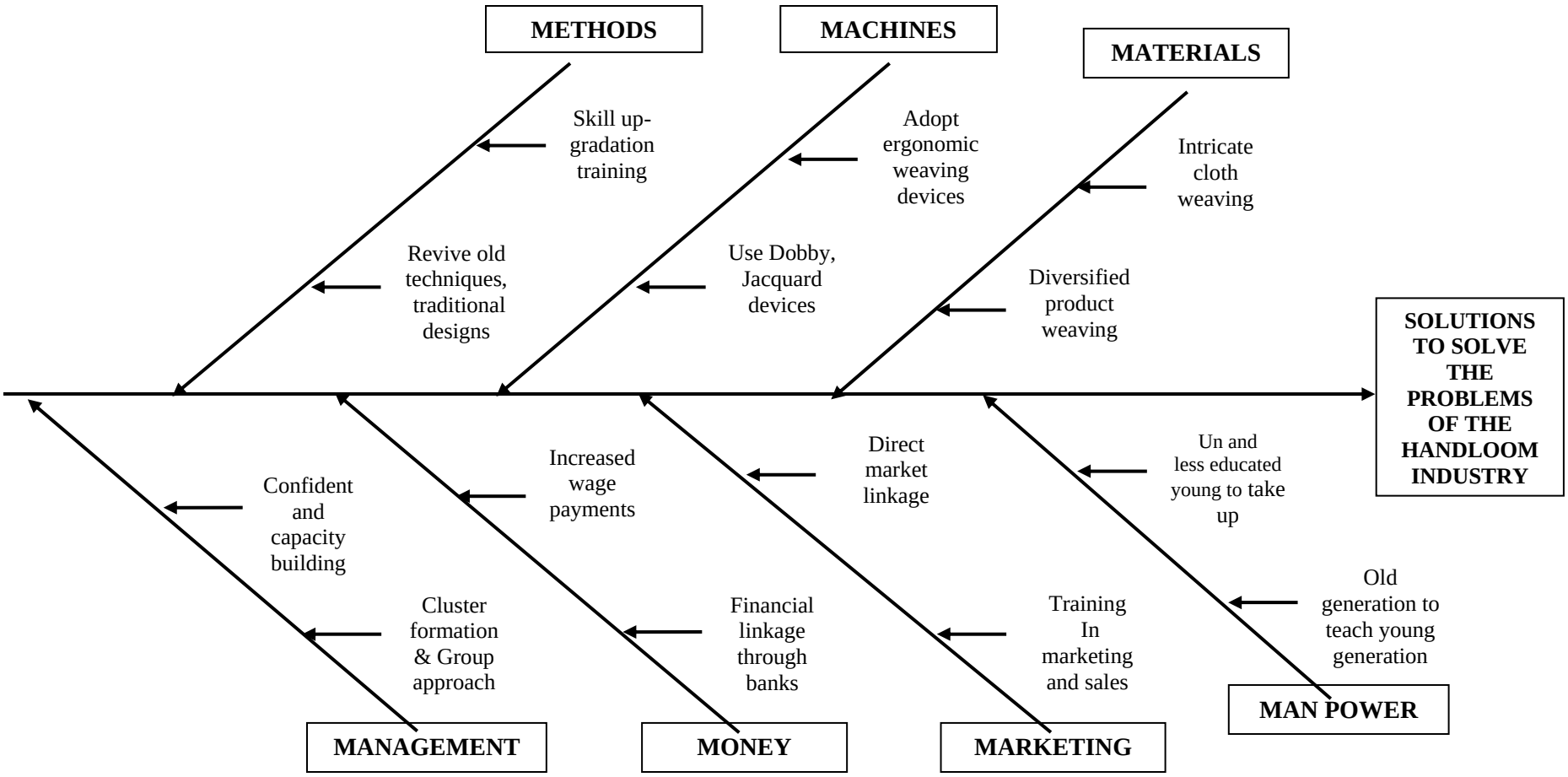


Diagram – 2
Ishikawa Diagram showing the solutions to solve the Problems of the Handloom Industry



Analysis and Interpretation

In order to analyze the seriousness of the problem, primary data was collected from 20 respondents by using the interview schedule. Four southern States – Tamil Nadu, Andhra Pradesh, Kerala and Karnataka were selected for this study. 10 Private and 10 Government officials were interviewed The seven categories namely man power, method, machines, methods, money, market and management under which the different problems faced by the handloom industry are grouped, have been put forth before them requesting to give their priority rating to address the above problems. Rating 5 is given for the problem which is to be addressed on top priority and rating 1 is given for the problem which is of least priority. The ratings given and its category wise total are presented in the Table 2.

Name of the State / Category of the Problem	Tamil Nadu	Andhra Pradesh	Kerala	Karnataka	Total	Ranking
Manpower	3	2	4	4	13 / 20	**4**
Material	5	4	5	4	18 / 20	**1**
Machines	4	4	3	5	16 / 20	**2**
Methods	3	5	3	3	14 / 20	**3**
Money	2	2	2	2	8 / 20	**7**
Market	2	2	3	3	10 / 20	**6**
Management	3	3	3	2	11 /20	**5**
Rating 5 is given for the Problem to be addressed on top priority and rating 1 is given for the problem which is of least priority						

Table – 2:

Priority Rating of the Officials about Addressing of Problems of the Handloom Industry

Conclusion

From the analysis, it is understood that material problem has to be addressed first followed by machines and methods and then – manpower to safe guard the handloom industry. The other problems of this industry, namely management, market and money are in the next order of priority. Hence, it is pertinent to study first about Material – Product innovation, Methods & Machines – Process modernization and Manpower –

Personal skill up gradation in the Quality Engineering (QE) point of view and also to study next about Management, Market and Money in the Quality Management (QM) point of view to solve the problems faced by the handloom industry.

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