

## Contents

### Preface

### Executive Summary

### Chapter – 1

#### Introduction, Objectives and Methodology 1

- 1.0 Introduction 1
- 1.1 Tamilnadu Powerloom Industry 3
- 1.2 SWOT Analysis of the textile manufacturing in Tamilnadu 4
- 1.3 Need for the study 6
- 1.4 Scope of the study 7
- 1.5 Objectives of the study 7
- 1.6 Government initiatives 8
- 1.7 Methodology and Procedures adopted for conducting the study 8
- 1.8 Sampling Procedure 9
- 1.9 Sampling Plan 10
- 1.10 Development of Questionnaire and Pre-testing 10
  - 1.10.1 Powerloom Units 10
  - 1.10.2 Focus Group Discussions (FGD) 11
  - 1.10.3 Secondary source data collection from Institutions 11
- 1.11 Consistency and Quality Checks 11
- 1.12 Data Processing and Report Preparation 12

### Chapter – 2

#### Dispersal and Structure of the Powerloom Industry in Tamilnadu 13

- 2.1 Differentiating features of the state's powerloom sector 14
- 2.2 Faster growth of powerloom sector 15
  - 2.2.1 Rise of spinning industry and fall of handlooms 15
  - 2.2.2 Factors contributing to the fast growth of powerlooms in Tamilnadu 16
  - 2.2.3 Export orientation of the powerloom sector 18
  - 2.2.4 Larger share in the domestic fabric and home textiles market 19
  - 2.2.5 Providing substantial rural employment 19
  - 2.2.6 Cluster and Sub-Cluster details 19

- 2.3 Current statistics on Number of powerlooms in Tamilnadu 20
  - 2.3.1 *Dispersal of Powerlooms under six major clusters* 21
  - 2.3.2 *Specific pattern of the industry in the six clusters* 22
- 2.4 Overall growth of the sector and its size structure 32
  - 2.4.1 *Size of the Powerloom Units* 33
  - 2.4.2 *Looms and size categories* 34
  - 2.4.3 *Pattern of Unit sizes in Different Clusters* 35
- 2.5 Powerloom co-operative societies in Tamilnadu 38
  - 2.5.1 *Nature of functioning of the Societies* 39

### Chapter – 3

#### **Structural Pattern, Business Models, Employment and Investment Capabilities in Powerloom Sector 41**

- 3.1 Ownership Pattern of the Powerloom units 42
- 3.2 Nature and Type of Production Activities 43
  - 3.2.1 *Predominance of job work activity* 44
  - 3.2.2 *Cluster wise variation in the production activity* 45
- 3.3 Location status & Type of building 45
  - 3.3.1 *Building Structures of Powerloom units* 46
  - 3.3.2 *Location aspects of powerloom units* 47
- 3.4 Employment in the Powerloom Sector 48
  - 3.4.1 *Women employment* 50
  - 3.4.2 *Average employment per unit* 50
- 3.5 Ownership/Lease Details in Powerloom Sector 51
- 3.6 Electricity and Fuel Requirements Pattern 52
  - 3.6.1 *Usage of Diesel Generators in Powerloom Sector* 53
- 3.7 Investment in land and building of powerloom units 53
  - 3.7.1 *An analysis of total investment in land, building and machinery by the powerloom units* 54

## Chapter – 4

### Looms, Weaving Preparatory Machines and their Technology Levels

55

- 4.1 Type of Looms 55
  - 4.1.1 *Definition of different type of looms* 56
- 4.2 Penetration of higher technology in the looms used 57
- 4.3 Estimated number of looms and their types 58
  - 4.3.1 *Type wise loomage in the clusters* 58
- 4.4 Pattern of new and second-hand looms installation 60
  - 4.4.1 *Proportion of new and second hand looms installation* 61
  - 4.4.2 *Cluster wise proportion of new and second hand looms installation* 61
- 4.5 Vintage of existing looms 64
- 4.6 Loom Width 65
  - 4.6.1 *Declining trend in narrow width looms* 66
  - 4.6.2 *Shift towards wider width looms* 67
- 4.7 Estimated width wise loomage 67
  - 4.7.1 *Estimated width wise loomage in different clusters* 68
- 4.8 Plain looms with Dobby, Jacquard and Drop Box Attachments 70
- 4.9 Semi Automatic Looms with Dobby and Drop Box Attachments 74
- 4.10 Automatic Looms with Dobby and Drop Box Attachments 75
- 4.11 Shuttleless Looms with Dobby and Drop Box Attachments 76
- 4.12 Preparatory machines installed and used in the powerloom Sector 76
  - 4.12.1 *Overall Sectoral Pattern* 77
  - 4.12.2 *Cluster wise variations in usage of pre-weaving machinery* 81

## Chapter – 5

### Products and Production Processes 84

- 5.1 Grey fabrics production 84
- 5.2 Yarn dyed textile items 85
- 5.3 Loomage under different product categories 86
- 5.4 Loomage on production of yarn dyed fabrics for dresses 87
- 5.5 Loomage on production of home textiles 89
- 5.6 Estimated variety wise production of textiles 90
- 5.7 Value of the powerloom production 91

- 5.7.1 *Cluster wise production estimates 92*
- 5.8 *Average production capacity and utilisation 94*
- 5.9 *Beam length(batch) of different textile products 95*
- 5.10 *Shift wise working pattern 97*
- 5.11 *Number of days and months worked 98*
- 5.12 *Number of looms attended by a weaver 98*
- 5.13 *Organisation of production activities by entrepreneurial, job work and master weaver units 99*
- 5.14 *Production activities within the units 107*
- 5.15 *Further details of Processing Activities 108*
- 5.16 *Variety wise reed-pick construction details, type of yarn, yarn count 109*
- 5.17 *Processing facilities for the powerloom sector in Tamilnadu 111*
  - 5.17.1 *Processing facilities in Coimbatore 114*
  - 5.17.2 *Processing facilities in Erode 115*
  - 5.17.3 *Processing facilities in Salem 116*
  - 5.17.4 *Processing facilities in Karur 117*
  - 5.17.5 *Processing facilities in Madurai 118*
  - 5.17.6 *Processing facilities in Chennai 119*

## **Chapter – 6**

### **Raw Material, Quality and Usage Pattern 124**

- 6.1 *Yarn consumption pattern 124*
- 6.2 *Raw material procurement by entrepreneur units 128*
- 6.3 *Form of yarn purchased 129*
- 6.4 *Yarn purchases on cash/credit 130*
- 6.5 *Production of spun yarn by reporting mills (SIMA) during 2001-02 132*
- 6.6 *Yarn production and supply by the mills located in Tamilnadu 132*
- 6.7 *Yarn deliveries by organised mill sector in South India 133*

## **Chapter – 7**

### **Marketing and Related Issues 134**

- 7.1 *Market segmentation 134*
- 7.2 *Yarn dyed fabrics segment 134*

- 7.2.1 *Export segment* 134
- 7.2.2 *Larger Units Operating in Export Market* 136
- 7.2.3 *Domestic segment* 136
- 7.3 Channels of marketing for powerloom products 138
- 7.4 Cluster wise marketing details 139
  - 7.4.1 *Coimbatore cluster* 139
  - 7.4.2 *Erode cluster* 140
  - 7.4.3 *Karur cluster* 140
  - 7.4.4 *Salem cluster* 141
  - 7.4.5 *Madurai cluster* 141
  - 7.4.6 *Chennai cluster* 142
- 7.5 Present inadequate marketing facilities 142

## Chapter – 8

### Awareness on Modernisation and Technology Upgradation 143

- 8.1 Powerloom owners awareness regarding WTO Regime and its implications 144
- 8.2 Modernisation plan of the powerloom units 145
  - 8.2.1 *Time for completion for modernisation in the unit* 146
  - 8.2.2 *Sources of finance for taking up Upgradation/modernisation* 146
- 8.3 Sources of Institutional Finance 147
- 8.4 Awareness regarding TUF scheme 147
- 8.5 Awareness regarding the services rendered by Powerloom Service Centres (PSCs) 148
- 8.6 Awareness regarding the services rendered by Computer Aided Design Centres 148
- 8.7 Awareness regarding the services rendered by PDEXCIL 149
- 8.8 Modernisation Issues 150
- 8.9 Issues relating to modernisation of looms 151
  - 8.9.1 *Problems relating to Upgradation of technology level of plain looms into semi automatic looms* 152
  - 8.9.2 *Lack of capital to invest in Upgradation by majority of powerloom operators in the state* 152
  - 8.9.3 *State Government subsidy scheme for Upgradation* 153
  - 8.9.4 *Demand for permitting the Upgradation by the addition of only two auto stop mechanisms and not three additional mechanisms* 153

8.9.5 *Wider width looms* 154

8.9.6 *Preference for Shuttleless looms over automatic looms* 155

## Chapter – 9

### Problems and Issues 156

#### 9.1 Infrastructure 156

9.1.1 *Electricity* 156

9.1.2 *Water* 158

9.1.3 *Communication, Shipping and Clearing* 158

9.1.4 *Intra regional problem* 159

9.1.5 *Inadequacy of PSCs in the state* 159

#### 9.2 Raw material 159

9.2.1 *Hank yarn availability and production* 159

9.2.2 *Stabilising the yarn prices* 160

9.2.3 *Quality of cotton yarn* 161

9.2.4 *Availability of blended yarn* 161

9.2.5 *Increased burden of excise duty on hank yarn* 161

#### 9.3 Backward linkage – dyeing/processing of yarn 162

9.3.1 *Dyeing of yarn and other pre – weaving processing* 162

9.3.2 *Yarn dyeing by spinning mills* 162

9.3.3 *Processing of yarn and fabrics for powerloom sector* 163

9.3.4 *Common ETPs and individual ETPs* 163

9.3.5 *Modernisation of sizing units* 163

#### 9.4 Forward linkage 164

9.4.1 *Fabric processing facilities* 164

9.4.2 *Lack of wider width fabrics* 164

#### 9.5 Labour 165

9.5.1 *Shortage of trained labour* 165

9.5.2 *Problems of training the weavers* 166

9.5.3 *Low wages to weavers* 167

9.5.4 *ESI and other government regulations* 167

#### 9.6 Technology Upgradation and modernisation 168

- 9.6.1 *Lack of awareness by smaller units* 168
- 9.6.2 *Availing of TUF Scheme loans* 168
- 9.6.3 *Collateral security* 169
- 9.6.4 *Modernisation outside the TUFs* 169
- 9.6.5 *Shrinkage of availability of second hand sulzer looms* 170
- 9.6.6 *Development of indigenous rapier looms* 170
- 9.7 *Quality improvements* 170
  - 9.7.1 *Improvement in the quality of fabrics* 170
  - 9.7.2 *Humidification in loom sheds* 171
  - 9.7.3 *Adoption of ISO 9000 quality systems* 171
  - 9.7.4 *Availing of testing facilities* 172
- 9.8 *Marketing and product diversification* 172
  - 9.8.1 *Developing of marketing complex* 172
  - 9.8.2 *Absence of marketing complex* 172
  - 9.8.3 *Product diversification* 172
- 9.9 *Government* 173
  - 9.9.1 *Role of state government* 173
  - 9.9.2 *Integrated approach* 174
  - 9.9.3 *Reservation for handlooms* 174
  - 9.9.4 *Non exposure to new schemes* 175
- 9.10 *Investment* 175
  - 9.10.1 *Lack of finance* 175
  - 9.10.2 *Working capital fund requirements* 175
- 9.11 *Entrepreneurial skills* 176
  - 9.11.1 *Management skills* 176
  - 9.11.2 *Lack of knowledge about markets* 176
  - 9.11.3 *Conflicts between job work versus manufacturing units* 176
- 9.12 *Machinery – Looms* 177
  - 9.12.1 *Lack of easy availability of spare parts* 177
  - 9.12.2 *Problems of machinery maintenance* 177
  - 9.12.3 *Trained manpower for advanced looms* 177
- 9.13 *Problems of small powerloom weavers* 178
  - 9.13.1 *Lack of job orders* 178
  - 9.13.2 *Manufacturing systems* 178

9.13.3 *Domination by manufacturer master weaver* 179

9.13.4 *Development of co-operatives* 179

## Chapter-10

**Focus Areas for Strategy Formulation** 180

10.1 *Infrastructure* 181

10.1.1 *Industrial Estates* 181

10.1.2 *Marketing Complexes* 182

10.1.3 *Expansion of PSC Capabilities* 182

10.1.4 *Power* 183

10.1.5 *Water* 184

10.1.6 *Provision of Common Effluent Treatment Plants* 184

10.2 *Technology Upgradation/ Modernisation* 185

10.2.1 *Looms* 185

10.2.2 *Pre-Weaving Machines* 186

10.2.3 *Yarn Dyeing Facilities* 186

10.2.4 *Post-Weaving Processing* 186

10.3 *Raw Material and Related Aspects* 187

10.3.1 *Yarn Pool Depot* 187

10.3.2 *Improvement in Yarn Quality* 187

10.3.3 *Availability of Blended and Other Special Yarns* 187

10.4 *Product Diversification* 187

10.4.1 *Product Flexibilities* 187

10.5 *Marketing* 188

10.5.1 *Marketing Information* 188

10.6 *Design Development Support* 188

10.7 *Training* 188

10.7.1 *Technical* 188

10.7.2 *Marketing* 189

10.8 *Proactive Role of State Government* 189

10.9 *Awareness on Government Proposed Schemes* 189