Arani Silk Micro and Small Enterprises cluster is a traditional handloom weaving cluster, which has been surviving with its own resilience and vulnerability, employing thousands of dexterous weavers by carving a niche for itself in the market. Though the cluster has survived for years there is a rising threat to its future survival due to the changing trends in the business environment.

This study was undertaken to map the cluster stakeholders, analyze their linkages, in order to design a suitable micro credit product that shall serve the working capital requirements of the weavers of this cluster with the following objectives.

Objectives

- To identify, map and analyse the linkages of the stakeholders in the cluster
- To review the progress of select weaver cooperatives in the cluster
- To analyse the socio-economic profile of the weavers functioning in the two principal production systems in the cluster
- To perform a SWOT analysis of the cluster in terms of its markets, technology, innovation, skills and business environment
- To study the present funding options for the weavers and suggest a suitable microfinance product suiting the funding requirements of the weavers
- To suggest suitable policy measures for strengthening the linkages among the stakeholders

Design of the study:

The study is descriptive and was conducted in Arani block, Tiruvannamalai district was purposively chosen for study. The study has adopted a multi-stage random sampling. The Arani silk cluster consists of both
private weavers (independent and attached to master weavers) and weavers attached to the Cooperative Societies. Though the weavers were attached to a private master weaver or cooperative society, due to lack of continuous orders, they resort to individual weaving. The weavers also entertain individual orders that they directly receive from the customers for occasions like festivals and marriage. Since weaving is a household industry, a minimum of two to three other members of the family had knowledge of weaving and were involved in the production process. So at times, in the case of weavers attached to cooperatives, when the looms are free, they were utilized by other members of the family for weaving the orders they receive from private sources.

As per the data published by Assistant Director, Handlooms (Vellore), which wields the administrative control of Arani Silk Cluster, as of 2007, there were 2342 households engaged in weaving. The draft cluster development plan for Tiruvannamalai district declares that 56% of the weavers were attached to Cooperatives and 44% worked under the private fold. Also it states that only 43% of the looms were active. Considering the above, in stage-1, the households engaged in weaving at Arani were classified into active and inactive, which resulted in a number of 1007 which formed the universe for the study. In stage-2 to form a representative sample and facilitate statistical validity about half of these households were decided to be the sample for the study, which were 504 weaver households. In stage-3, about 56% of the sample was constituted by weavers who were members of Cooperative society, which resulted in a number of 282 weavers and 44% of the sample was constituted by weavers who were under the private fold which resulted in a number of 222 weavers.

The detailed analysis of data for Cooperatives and Weavers has given a comprehensive understanding of the status of various stakeholders of the cluster. The salient findings have been presented in this section separately for cooperatives and weavers.
8.1 Silk Weaver Cooperatives in Arani:

8.1.1 Silk Purchases:

- Among the three cooperatives studied, the silk purchases of Athimalaipattu Cooperative Society and Annai Anjugam Cooperative Society have witnessed a consistent growth rate every year, whereas the Arani cooperative society has shown a decline in 2010-11. The decline may be attributed to the steep decline in production. The overall silk purchases also showed a declining trend.

8.1.2 Production:

- Annai Anjugam and Athimalaipattu societies have shown a positive growth in production throughout the study period. In the case of total production, there has been a steep negative growth in 2010-11, for Aranf Cooperative Society, which is also reflected in the overall trend. This may be due to the losses incurred by the Cooperatives in the previous period and it would have been decided to scale down the production.

8.1.3 Sales:

- The annual growth rate in sales is found to have been fluctuating for Arani Co-op Society due to the stiff competition and also because of the lack of modern designs. The decline in 2010-11 appears to be a major decline. The sales has almost halved when compared to the previous year. Also it is important to notice that the overall sales trend is increasing negatively which strikes a note of caution.

8.1.4 Profit:

- Arani Silk cooperative society has witnessed a steep decline in profits in 2009-10 and 2010-11. The other two societies have shown a steady increase in their profits.
8.1.5 Cash Credit:

- There has been a fluctuating trend in the total cash credit availed by Cooperatives during the study period (vide table 3.6). In 2007-08 there was a decrease in the loan availed by Annai Anjugam society as the society was not producing to its capacity which is also evident from the decrease in production.

8.2 Profile of the Weavers:

8.2.1 Personal Profile:

- About 71.03 percent of the weavers were in the productive age group (up to 45 years).
- Only about 4.96 percent of the respondents were found in the older age group of above 60 years. Among those who weaved for private master weavers, only 31.35 per cent were in the active weaving age group, which may be due to the fact that due to the constraints faced in the market and the control being wielded by the master weavers, they have been seeking other unskilled employment in other areas which leaves their artistic skill redundant.
- Between men and women, majority (21.43 per cent) of the women were members of cooperatives. Among the male weavers a little more than one-third of the respondent weavers were members of cooperatives.
- Even among the respondents of this study, the trend is reflected, with majority (71.23 per cent) of them being male.
- In Tiruvannamalai district, the main weaving communities are Mudaliars, Chettiar and Vanniars.
- Only about 1.98 percent of the respondents were graduates.
- It is found that nearly half of the respondents lived in semi-Tiled houses, wherein a part of their house has a Tiled roof and the other areas are tiled. About 29.76 per cent of them lived in Tiled houses and about 3.57 percent of the respondents lived in leased houses.
Among the Arani weavers, a little more than half of the respondents had a family size of 5 to 6 members which included their aged parents. Also 29.37 per cent of the weavers were staying in joint families which had a size of 7 and above persons in the household.

In the case of more than half of the respondents, about 2 to 3 members of the family were involved in weaving activity apart from the respondent. In the case of about a little more than one fifth of the respondent’s, only one member from the family was involved in weaving, which in most of the cases were their spouse or wards.

8.2.2 Production:

Since Arani is gaining vibrancy due to its increasing ties with the Chennai based textile retail giants continuously procuring from the cluster, about 80.36 per cent of the respondents were engaged full-time in weaving.

A little less than one-fifth of the respondents were part-time weavers due to the reasons like lack of continuous orders, inadequate access to finance, ill health and better wage employment opportunities in the nearby industrial zones.

In Arani, with the increasing orders from Chennai based textile retailers, there is a necessity to weave in multiple looms to execute such orders during marriage seasons. But, the numbers of looms that are active keep dwindling.

Official estimates reveal that the active looms in Tiruvannamalai district are only 43 per cent.

About 40.28 per cent of the respondents operated two looms closely followed by those who operate a single loom (31.74 per cent) and about 27.98 per cent of the respondents were found to operate three looms. Among these majority of the weavers are concentrated on silk saree weaving since its movement in the market was better than that of silk skirts.
It is found that a little more than three-fourths of the weavers were found to have employed Jacquard in their looms, followed by those who used the traditional adai technique (11.90 per cent). About 10.91 per cent of the respondents were found to use both adai and Jacquard, since they had more than one loom in operation.

About three-fourth of the weaver respondents obtained their raw materials either from Cooperatives or master weavers (vide table 4.18). Only about 8.93 per cent of the respondents were making their purchases from open market.

A little less than three-fourths of the weaver respondents produced on a fully commercial basis, whereas a little more than one-fourth of them produced also for their family and relatives, hence categorized as Mixed producers.

A great majority of the respondents specialized both in products (95.63 per cent) since both of them were inseparable elements. When a special variety of product has to be created the specialization of process follows. But innovations in production technology or processes are very rare. Except for computerization of designing, much of innovation has not crept in the cluster, in recent periods. A new dyeing technology has recently been introduced by CSB which is yet to get popularized.

A dominant majority (95.63 per cent) of the weavers diversified their production in terms of changing the colour combinations, designs, patterns, variety, etc., as per the trends in market and based on the inputs given to them by their respective masters (either the master weaver or the Cooperative Society). But still there were a few respondents who produced only traditional varieties and did not diversify, due to the traditional attitude and attachment towards production of a selected variety, lack of knowledge to make product modifications, lack of funds to make the necessary changes, non-availability of technical support, non-availability of technical knowledge/labour, etc. About 4.37 per cent of the respondents did not attempt any product diversification.
• A little more than one-third of the respondents drew support from cooperatives for product diversification, followed by master weavers (29.37 per cent), for 14.09 per cent of the weavers, the sub-contracting large manufacturers (13.04 per cent) like RmKV, Pothys, Chennai Silks, etc., where the source of support. While nearly five percent of the respondents took the support of technical institutions like CSB and WSC, about 10.12 percent of the respondents drew support from their skilled employees.

• Provision of raw materials (95.04 per cent) and design inputs (91.27 per cent) were found to be the major service rendered by the channel members followed by credit facilities (73.61 per cent). Other services provided by the channel members are technical assistance (72.82 per cent) and training inputs (46.23 per cent).

8.2.3 Employment and Income:

• Majorities (58.33 per cent) of the weavers were employed for more than 300 days in a year (vide table 4.19). The weavers, under both the production systems, worked for more than 300 days in a year, for earning a higher income. The weavers in the private fold earn 40 per cent lesser wages when compared to weavers of Cooperatives; hence they have to produce more to earn more wages. Moreover they do not enjoy the benefits of social security measures like bonus, insurance and loan facilities given by Cooperatives.

• A little more than half (52.38 per cent) of the respondents earned above Rs.30000/- as annual income. About 38.89 per cent of the respondents earned between Rs.20001 to Rs.30,000/- as income per annum.

• It could be observed that in a dominant majority of the weaver households (68.45 per cent) income from weaving appears to be the major contributor with more than 80 per cent of the household income coming in from weaving activity.
8.2.4 Marketing and Advertisement:

- It was observed that all the available channels for marketing were utilized by the weavers. Since the possibility of selling through outlets of Cooperative Societies is restricted to its members, only about 40.48 per cent of the respondents were able to utilize that facility. The channels of master weavers (32.94 per cent) and local traders (2.38 per cent) were open also to the members of Cooperatives i.e., the weavers were free to supply their produce to these local traders and master weavers. About 14.09 per cent of the weavers were selling their products to the Chennai based textile retail giants like Pothys, Chennai Silks, RmKV, etc.

- Only about 16.67 per cent of the respondents have rated advertising as an important tool for attracting customers; the main reasons being high cost of advertising and lack of immediate tangible benefits.

- All the respondents have felt that the price factor and modification/production of the product according to the tastes/needs of the customers was the chief attraction to the customers. But due to the availability of cheaper substitutes, ‘price’ has also loomed up as a top factor in the minds of all respondents. Thus the unique product quality of Arani silk has occupied only the second place, with 86.71 per cent of the respondents rating it to be the major factor of attraction.

- It is found that a thumping majority (77.78 per cent) of the respondents exhibited a unfavourable attitude towards zari testing and stated that the facility was not essential. About 22.22 per cent of the respondents were convinced with the present method of X-ray Flourescence testing.

- Only less than half of the weavers have realised the importance of Silk Mark and Handloom Mark initiatives, which strikes a note of caution for building awareness.

- A dominant majority of the weavers interviewed (88.10 per cent) were not aware of the Geographical Indication Registration and its importance.
8.2.5 Backward Linkages, Diversification and Transfer of Know-how:

- About a little more than half of the respondents have acquired their basic training in weaving from their family (52.58 per cent) and the rest (47.42 per cent) have begun their career as workers in looms and have graduated to be weavers of their own at a later period of time.

- A little less than three fourth of the weaver respondents have not made any modification in their looms in the recent period.

- The weavers are complacent with the available technology and resort to repairing the looms locally at times of necessity. The main reasons for aversion to modification in looms were lack of awareness, procedural difficulties in obtaining the government support, financial constraints and skepticism about the viability of new technology.

- It was found that a vast majority (88.10 per cent) of the respondents were not using computerized designs. Usage of Computerized designs is slowly picking up with the silk cooperatives.

- Only 11.90 per cent were found to use manual designs since they shall be using the *adai* technique.

- It was observed that majority of the respondents (43.65 per cent) have received support in the form of supply of design and materials required for diversification followed by 29.17 per cent of the respondents who received complete support for product diversification from Cooperatives / master weavers with whom they worked. About 10.71 per cent of the respondents have received advice on equipments to be used and processes to be adopted.

- The cluster members predominantly perceived introduction of new designs/colour patterns as product diversification. Product and process innovation are yet to be realized as the important components of diversification.

- It was observed that majority of the respondents (79.96 per cent) have not undergone any formal training programme and about 16.27 percent of the
respondents underwent training programmes organized by CSB/WSC. A very few of the respondents recalled the Cluster Development trainings organised through their cooperatives.

- It is striking to note that a dominant majority of the weavers interviewed (88.10 per cent) were not aware of the Geographical Indication Registration and its importance.

8.2.6 Problems in Production:

- Escalating cost of raw materials (yarn and zari) has been ranked as the topmost problem (37.10 per cent) in the perception of the cluster members.

- Three fourths of the weavers have ranked working capital issue as the second major problem facing the cluster in terms of production, since this affects the productivity of the cluster.

8.2.7 Problems in Marketing:

- In the case of problems faced in marketing, the increasing prices of finished goods due to the escalating cost of raw materials looms up as the top most problem in the minds of majority (74.21 per cent) of the respondents.

- Increasing use of fake zari, an effect of the escalating cost of raw materials, which affects the quality image of the cluster products, has been ranked as the second major problem by 72.02 per cent of the respondents.

8.2.8 Future Threat for weaving:

- In about one-fourth of the cases, four or more members from the family were involved in the enterprise. Though more number of people get involved in the activity, the returns are not commensurate with the number employed.

- Of late, the weavers themselves discourage their wards/spouse to involve in the activity and encourage them to pursue education and take up other employment avenues, even unskilled labour in the nearby industrial parks.
It was attempted to understand whether the weavers would encourage their children to take up handloom weaving as their profession, it was found that more than half of the respondents were unwilling to encourage their children to pursue weaving as their profession. These results are a double than that of the proportion of weavers who responded negatively to the same question in third handloom census of India 2010. Only a little less than one-tenth of the respondents were willing to allow their children pursue weaving as their profession.

Half of the respondents thought that there was a High threat from power loom goods to the products of the Arani silk cluster. A little more than one-fourth of the weavers said that due to the unique product quality said that power loom is ‘No threat’ for Arani silk. About 12.30 per cent of the weavers were unaware of the existence of such a threat.

8.3 Results of the Statistical Analysis

8.3.1 T-Test

The t-test results indicated that there existed a significant difference across men and women weavers in terms of wages earned and number of days employed. Though the wages earned by the weaver is fixed based on the complexity of design and craftsmanship due to the dual responsibility of managing the family as well as working on looms, there is a difference among men and women in earnings. Similarly, the time available for women for weaving after their household chores is less; hence it could be inferred that there exists a difference in number of days they had been employed.

8.3.2 Correlation

From the correlation analysis it was found that there exists a positive and significant correlation between all the variables viz., age, years of weaving, number of looms operated, number of family members involved in the
enterprise, level of education, nature of engagement, type of loom, number of days employed per year, average earning and share of handloom to total income.

8.3.3 ANOVA

• The results of ANOVA indicated that there exists a significant difference in the interest cost of borrowings among the different categories of weavers on the selected criteria.

8.3.4 Multiple Regression Analysis

• The results of regression analysis indicates that the variables number of family members in Weaving (X_2), Education (X_3), Interest Cost of borrowing (X_4), Days employed (X_5) and No Of Looms under operation (X_e) were found to be statistically significant, indicating the importance of these variables in affecting the wage income of the weavers.

8.4 Analysis of Cluster linkages:

• The analysis of the cluster linkages reveals that the linkages of principal firms with the BDS providers are weak. There are also issues which call for attention from policy perspective like regulation of competition, creation of a conducive environment for business, etc. With regard to the promotability aspect, there is a need for product diversification which is possible only when the linkages among the stakeholders are strengthened. The cluster cooperation matrix has identified potential areas for development of linkages and social capital.

• The analysis of competitive advantage differences reveals that among Cooperatives, there is a need to invest in technology as well as services and monitor cost.
• The inferences from Venn diagram analysis reveal that though there are various important support institutions present in the cluster, their linkages with the principal producers is weak. Hence there is a necessity to bridge the gap between the support institutions, BDS providers, financial institutions and the forward linkages with that of the principal production system to boost the competitiveness of the cluster.

• The detailed SWOT analysis on the aspects of technology, innovation, markets, inputs, skills and business environment identifies the potential areas of opportunity and strengths which can be harnessed to tap the same for the benefit of the cluster.
SUGGESTIONS

The detailed analysis of the Arani Silk Weaving cluster in the previous sections and the findings of the study have indicated the various issues that need to be addressed for boosting the competitiveness of this traditional cluster. Based on the analysis and findings suggestions for the development of this cluster are presented in this section of the study. The suggestions have been classified under five specific heads viz., Cluster development, production, marketing, finance and human resource development (Section I). A cluster map portraying the envisaged cluster linkages has been presented in this section (Section II).

Section I

Cluster Development

- Evolving a consensus among the cluster stakeholders on addressing the common issues through cluster development method is essential and can be done through a combination of exposure visits by opinion leaders to successful clusters and follow-up discussions.
- Handloom weavers, master weavers/cooperatives can be grouped into consortia. These consortia can be legally registered under the Charitable Societies Act with representatives from each society serving as members of the relevant consortia.
- Cluster consortia should also include private entrepreneurs, representatives of small producers and cooperatives for promoting overall development of the cluster.
- A Cluster Development and Coordination Committee (CDCC) involving stakeholders of the cluster must be formed with professionals like Cluster Development Agents (CDAs). This committee can help monitor the
progress of interventions with an emphasis on evolving sustainable models for cooperatives,

- Non-Government Organisations (NGOs) should be actively involved in the cluster development initiative since they can work in proximity with the grassroots.

- ‘Trust Building’ shall be the most challenging phase for the CDAs, since there is a widespread mistrust among the cluster stakeholders due to stiff internal trade rivalry. Pilot projects demonstrating tangible benefits shall prove helpful in the ‘trust building’ process.

- As the trust level increases the real issues shall become more defined. The identified problems can be fine-tuned based on the inputs received through interactions during and after the initial pilot level activities and level of commitment shown by the firms.

- Benchmarking with best practices, training and exposure of implementers (firms, institutions and associations) can be organized to further enrich their level of understanding, thereby workout an optimal activity sequencing in each identified areas of concern.

- In the case of institution building for cluster development, one important factor to be borne in mind by the CDAs is the ‘traditional’ ties of the cluster. Creation of agencies which may affect such ties shall prove unsustainable. Establishment of democratic institutions shall in a way be helpful in overcoming such barriers.

- Opinion leaders among the networks within the clusters have to be identified and convinced to facilitate the process of cluster development.

- The cluster development plan should focus on creation of common R&D infrastructure in the areas of production technology, product differentiation, design development, technology upgradation, waste reduction, quality control and effluent treatment, and in the areas of training/capacity building, export orientation and facilitation, etc., without affecting the individual competitiveness of the firms.
• Linkages **have** to be forged with the available support schemes for executing planned joint initiatives of consortia of units

• Apart from cooperative sector, special focus must be given to develop other enterprise segments including tiny and small (non-cooperative) weavers and also exporters

• Consortia-led interventions must be encouraged with the CDAs and the Directorate/support institutions playing a *catalytic* role

• Self-initiatives by consortia like organizing workshops, programmes on quality assurance, facilitation of participation in *fairs*, infrastructure development focusing on exports and quality upgradation must be encouraged.

• Progressive intertwining of cluster development interventions and support even amongst the micro-artisans have to be pursued on a participatory mode.

• In order to promote social capital in the cluster there is a need to emphasize and give incentives for cooperation to overcome opportunistic behavior, lack of trust, and a path-dependent preference for vertical integration.

• All cluster development initiatives should adopt the ‘inclusive’ and ‘participative’ principles i.e., all stakeholders, especially the private entrepreneurs and independent weavers should be involved in the process of cluster development

• As the cluster development activities start getting implemented attempts can be made to create a system, by strengthening the local institutional framework that will continue to work, to realize the long-term vision of the cluster even after the withdrawal of CDA.

• Membership in cooperatives must be encouraged to bring more number of uncovered weavers into the fold of cooperatives
• Measures have to be taken to popularize the Silk Mark, Handloom Mark and Geographical indication both among the cluster stakeholders and customers
• Stringent administrative action has to be initiated to eradicate fake goods from the market
• The traders association must be strengthened and their participation in cluster development efforts has to be enhanced
• Politicization of cooperatives and other weavers’ organizations must be withered
• Small traders must be supported by providing them assistance in the areas of production, technology, market linkages, quality control, finance, etc.
• The emerging business to business (B2B) sub-contracting relationship with the textile retail majors of Chennai must be strengthened, since it is a viable route for sustainable sales.
• Market research to gauge the expectations of the B2B buyers should be initiated in order to ensure customer satisfaction
• Keeping in view the inherent weaknesses of this handloom cluster, the government should continue to support the sector with welfare measures like social support for weavers (pension/insurance, membership in cooperatives).
• Government must adopt progressive policies to promote joint R&D efforts in the areas of improving production technology, quality control, product diversification, export oriented production, etc.
• Active measures like organizing fairs, facilitating participation in international fairs, exhibiting products in foreign markets, in lines of Council for Leather Exports must be initiated through the Handloom Export Promotion Council (HEPC),
• Special Handloom Processing Zone scheme can be pursued for the Arani cluster by integrating it with the cluster development efforts.
• The cluster consortiums can avail projects like Deen Dayal Hatkargha Protsahan Yojana (DDHPY) from the office of the Development Commissioner of Handlooms, New Delhi, for product development, infrastructure support, institutional support, training to weavers, supply of equipments, marketing support, etc., both at macro (cooperatives) and micro level (weavers) in an integrated and coordinated manner. This shall help in increasing the efficiency level of the weavers and production capacity of the societies.

• The local/district administration can sanction grants-in-aid to establish common facility centres for post-loom processing, training, etc.,

• Convergence between the CDA and the district/local administration has to be developed since their functions are complimentary

• The traders associations need to look beyond the role of advocacy and must adopt a pro-active role for the development of the cluster.

• With the coming up of computer based information services, access to the world wide latest information has become instantaneous. Besides the macro trade information about the trends and direction of trade, investment & technology, the services are also used for match making among the individual enterprises. These types of services still do not exist in Arani. There is a need to play a pro-active role to institute such services through common facility center for at least a period of 3 years. The services could then be privatized on commercial basis once the private entrepreneurs take up such services on a wide spread scale. Initial technical assistance can be sought from ‘TANSTIA-FNF center’ based in Chennai, ‘National Small Industries Corporation’ (NSIC) and ‘Federation of Indian Chamber of Commerce & Industry’ (FICCI).

• In terms of sustainability of individual initiatives, the following elements have to be ensured:
  - Efforts taken to improve the awareness about quality should be well accepted by the exporters in the cluster.
- The number of private consultants available in the cluster should increase due to the increase in demand. Moreover, the ensuing competition shall reduce the fees so that most services shall be affordable even to the small firms.
- The importance of human resources development is well appreciated by BDS providers.
- The Traders/manufacturers Associations should be encouraged to create infrastructure like a separate building for conducting training programme for the middle level executives and workers.
- The CDAs must create necessary infrastructure in its office premises to continuously conduct skill up-gradation programme and should identify an officer to work as CDA.
- A separate cell (Industrial Consultancy Cell) shall be created to have close liaison with the industry and to undertake the projects for industrial development, which includes part-time training programme for the executives and entrepreneurs.
- Private institutions from the cluster should be encouraged to impart technology training in garment manufacturing and processing for the cluster firms.

Production:

- Access to common Business Development Services should be created by establishing common facility centres
- Common purchases can be done through the cluster consortia to optimize costs, which can help the producers in gaining benefits like discounts and a progressive move from purchase of capital goods to chemicals and yam could be achieved
- Tie up with export clusters like knitwear of Tirupur, home furnishings of Karur, Bhavani and Chennimalai, for value addition in their products, can help the cluster in gaining a ‘derived demand’ out of their export orders.
• Product lines like low value/medium/high value items can be chosen and cooperative societies can specialize in a particular product line to avoid losses and earn profit

• Scientific inventory control must be adopted in Cooperatives. For instance, they can take up FSN analysis (Fast moving Slow moving and Non-moving) of their stock and plan the production accordingly to avoid losses.

• The cooperatives can pioneer novelty/export oriented products which can be followed suit by private sector

• Under the cluster development programme, design development activity can be done. The cluster consortia can appoint freelance designers through IIHT for developing designs in different product categories and assist the societies in developing the samples. The paper designs thus produced can be developed as samples. This design intervention is expected equip the cooperatives to gain a better share in the export trade.

• Textile committee can organize workshops for sensitizing the weavers on various export oriented production issues by employing designers from abroad. Such an effort shall help in providing insights into the export markets and shall help in initiation of ‘incubation centres’, which aims at market expansion.

• Computer aided design (CAD) systems are internationally used for creation of new designs. Such facilities have been set up inhouse by some of the larger Cooperatives and the Chennai based textile majors. Both CSB and WSC have such facilities. A few private facilities also exist in the cluster. In the long run, more private facilities should be set up by entrepreneurs in order to provide the design services to all exporters on commercial basis.

• The existing problem for creation of such novel designing facilities relates to lack of skills and risk on returns. Technical assistance from National
Institute of Fashion Technology shall be sought and financial assistance at subsidized interest rates from the financial institutions such as SIDBI be provided to the entrepreneurs willing to set up such services for job work on commercial terms.

• The technology and equipment gaps should be identified. ‘Machinery and equipment committees’ can be formed by the cluster consortia to negotiate common purchase and fill the gaps identified.

• Larger gaps in terms of physical infrastructure viz., effluent treatment, testing, exhibition and other facilities need to be identified. Support in the form of grants-in-aid must be synergized under the available schemes.

• The cluster consortia can be encouraged to participate in the 'Apparel Park Initiative' and other firms can follow suit.

• Initiatives for establishing Quality Management Systems (QMS) certification can be done through the Cluster Consortia

• New product development initiatives must be encouraged by providing them ‘seed capita’

• Low cost product line to attract the mass market of middle class, pilgrims and tourists have to be produced on a large scale. Smaller societies can be encouraged to take up such items, since this shall help in providing continuous jobs to its weavers.

• Weavers must be motivated to produce cost competitive products since it will fetch them continuous job orders

• Suitable cost-effective alternate technologies can be evolved and improved processing techniques to reduce level of effluents, along with training of personnel to minimise effluent creation be initiated in the cluster.

• With the assistance of the Government of India and institutions such as UNIDO and UNDP, tie ups with international institutions for pollution
control facilities should be arranged. This will help in facilitating the setting up of common effluent treatment plants.

- Research and Development activities for new product development must be initiated in the cluster.
- International catalogues providing insights into new fashions, new ranges of apparels are very expensive for individual firms to afford. Assistance needs to be provided for provision of such facilities to the cluster members. There needs to be a strong coordination on this with Traders/Manufacturers Association.
- A direct consequence of product diversification will lead to up-gradation of technology for the various firms at different levels. The up-gradation of technology seems especially required in dyeing, designing and fashion technology.
- The technology up-gradation has to be selective to the extent that it adds value for the enterprises through catalyzing the environment. Demonstration effect is one such solution since the initial step is usually the most difficult in to be taken technology advancement.
- Support in the form of subsidized interest rates or zero interest rates should be provided by institutions such as SIDBI to finance the first few machines in the private sector that will be used for job work. These ventures, instead of appraising them on purely commercial considerations should be looked at as quasi development ventures. This type of support will provide a strong demonstration effect for the other enterprises that can then afford to buy the equipment on their own either for their in-house requirements or for job work purely on commercial terms.
- Setting up of computerized color matching systems would also lead to reduction in the wastage of dyes that takes place due to hit and trial method of mixing in an attempt to get a correct shade.
Marketing:

- Unprofitable showrooms of Cooperatives can be shunned and other showrooms can be upgraded with assistance available under existing schemes for handlooms.
- Profiling of regular customers at showrooms of cooperatives can be taken up and relationship building exercises with them can be done to retain them. The profiling exercise can be done easily with the addresses of customers available in the receipt books.
- Personalized sales promotion techniques like special discounts, offers, personalized advertising of new product range, etc., for regular customers can be offered.
- Exploratory market research for Arani silk fabrics in export arena has to be initiated with the help of Handloom Export Promotion Council.
- Strengthening the ‘Loom World’ chain of outlets shall be of help to enhance the marketing prospects and shall help fighting the bogus cooperatives and unfair trade practices.
- Linkages with tourism promotion agencies can help bringing in tourists to the ‘Loom World’ outlets.
- Proper market segmentation exercise has to be taken up to understand the available market segments well and plan the marketing efforts accordingly.
- Integrated ‘market planning’ has to be done by involving the field level personnel in the process. ‘Bottom up planning’ must be adopted.
- Authorized Sales agents of cooperatives, being a viable channel, must be encouraged with special strategies like dealer discounts, enhanced credit period and special offers.
- Best Performance/Dealer of the year Awards can be instituted to motivate sales agents who promote the cluster products well.
• Participation in international fairs can be encouraged through the Handloom Export Promotion Council
• The cooperatives can pilot the process of internationalization through Co-optex.
• The private sector creates hype for silk sarees through their extensive advertising campaign, which has to be utilized by the Cooperatives to boost their sales encashing on their 'quality' image with the customers.
• Cooperative societies in a consortium may be encouraged to pool invest their own funds and operate marketing outlets on a lease basis.
• Vantage points must be identified at entry points of the town and information booths on authorized silk traders must be made available there to the buyers.
• The intermediate brokers must be kept away from the system by stringent administrative action.
• Tax exemption should be given to the silk saree merchants as a measure to promote this traditional industry.
• Tax holidays can be given to encourage participation of cluster firms in initiatives like Apparel Park and Handloom Export processing zones.
• Promotion of Common Brand is an important and strategic initiative undertaken for retaining the present market position in the open market competition. The collective brand promotion exercise has to be taken up for the cluster. Since there are no BDS available to provide a clear road map and strategy for the implementation it should be noted that requirements are multidimensional. Since most of the units in the cluster are MSMEs, a minimum critical mass is required to implement it. The following steps may be followed for this exercise,

  ▪ Benchmarking and learning from experts
  ▪ Identification of a good agency for preparing the road map
Creation of a small core group to sensitize the cluster sectors and close follow-up of the progress made in the implementation.

Mobilization of the critical mass

Finalization of parameters to finally join the brand network

Identification of different BDS for auditing of parameters and international feedback on marketing

Creation of draft Project Proposal for funding

**Human resource/Personnel:**

- Performance linked incentives for showroom personnel can be introduced
- Awards for best performance can be introduced to motivate personnel of Cooperatives
- Appointment of professionals to head cooperatives can help in bringing in the much-needed dynamism among cooperatives
- Exposure visits to export-oriented handloom clusters must be organized to increase the awareness among the cluster members about the growth possibilities
- Capacity building and training of officials on cluster development methodology can be initiated
- Capacity building efforts also have to be initiated in the areas of packaging, branding, sales promotion and export/import (EXIM) management.
- Training on quality control of handloom fabrics, dyeing techniques and advanced weaving can be initiated through Indian Institute of Handloom Technology (IIHT)
- Training in jacquard and dobby, dyeing and designing can also be given through WSC under Integrated Handloom Training Project
- Services of Research/Training institutions of repute like Indian Institute of Handloom Technology, National Institute of Fashion Technology, National Institute of Design, Entrepreneurship Development Institute,
Gandhigram Rural University and those available in the cluster, should be harnessed for capacity building among the cluster participants in the areas of management and internationalization of the cluster.

- The human resource development (HRD) programmes developed under the cluster development initiative, to provide formal, theoretical and practical training for weavers, master weavers and officials, shall be made available to the cluster on a sustainable basis by involving local institutions.
- The steps in implementing such a sustainable HRD mechanism shall involve the steps of identification of appropriate local institutions best suited to the target beneficiary, creation of appropriate courses based on the needs of target beneficiaries, sensitization and demonstration to firms on the need for such inputs and demonstration to institutions on viability of providing such inputs as BDS.
- The type of training programs which are required to upgrade the skills of manpower needs targeting at all the intermediate processes.
- A comprehensive package of such programs on quality control, testing methods and export documentation needs also to be developed.
- The exporters need to be assisted to obtain the ISO 9000 series accreditation so that not only the technology and skills are improved but the management systems are also upgraded.

**Finance:**

- Merger of smaller and less profitable cooperatives with the bigger and profitable societies can help avoiding incessant losses.
- Microfinance through Self Help Groups should be encouraged at the level of weaver to provide them credit for their emergent and production needs and also to support their enterprise. The established NGOs working in the area can be utilized for this purpose.
- Working capital support to the entrepreneurs of this sector must be enhanced
• ‘Tax holidays’ for exporters may be introduced to induce exports from the cluster.

• Prioritizing credit flow to the sector by banks has to be ensured. With right dosage of cheaper credit shall help in business promotion.

• Incentives for prompt repayers should be given by banks, to cultivate a credit repayment discipline among the borrowers thereby paving way to reduce non-performing assets in this sector

• Alternative secondary occupation for the weaver households in the form of micro enterprises must be identified and can be promoted through microfinance to relieve them out of the debt cycle created as a result of seasonal unemployment.

• Special ‘innovation fund’ should be created to promote technological, production and market innovation in the cluster.

• ‘Incubation funds’ can be instituted for promotion of participation in initiatives like Apparel Park.
Section - 2

Figure 8.1

Six modules of the Proposed cluster map

<table>
<thead>
<tr>
<th>Forward Market Linkages</th>
<th>Support Institutions</th>
</tr>
</thead>
<tbody>
<tr>
<td>SWCS showrooms (SWCSS)</td>
<td>Silk Weavers Cooperative Societies (SWCS)</td>
</tr>
<tr>
<td>Co-optex</td>
<td>Central Silk Board (SCTH)</td>
</tr>
<tr>
<td>Loom world</td>
<td>Weavers Service Centre (WSC)</td>
</tr>
<tr>
<td>Master Weavers (MW)</td>
<td>Commercial Banks (CBs)</td>
</tr>
<tr>
<td>Sales Agents (SA)</td>
<td>Tamilnadu Handloom Development Corporation (THDC)</td>
</tr>
<tr>
<td>Traders – Internal (RT-I)</td>
<td>Assistant Director (Handlooms) (ADH)</td>
</tr>
<tr>
<td>Traders – External (RT-E)</td>
<td>Traders Associations (TA)</td>
</tr>
<tr>
<td></td>
<td>Gandhigram Rural University (GRU)</td>
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</tbody>
</table>

<table>
<thead>
<tr>
<th>Principal Production System</th>
<th>Sub-Contracting Firms</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cooperative Weavers</td>
<td>Dyers (DY)</td>
</tr>
<tr>
<td>Private weavers</td>
<td>Designers (Manual) (DM)</td>
</tr>
<tr>
<td></td>
<td>Designers (Computerized) (DC)</td>
</tr>
<tr>
<td></td>
<td>Punch card makers (Manual) (PM)</td>
</tr>
<tr>
<td></td>
<td>Punch card makers (Computerized) (PC)</td>
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<tr>
<th>BDS Providers</th>
<th>Raw Material/Machinery Supplier</th>
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</thead>
<tbody>
<tr>
<td>National Institute of Design (NID)</td>
<td>Zari merchants – Local (ZL)</td>
</tr>
<tr>
<td>Entrepreneurship Development Institute Ahmedabad (EDA)</td>
<td>Yarn traders – Local (YL)</td>
</tr>
<tr>
<td></td>
<td>Yarn traders – Karnataka (YK)</td>
</tr>
<tr>
<td></td>
<td>Anna Silk Exchange (ASE)</td>
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<td></td>
<td>Karnataka Silk Marketing Board (KSMB)</td>
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<td></td>
<td>TANSILK</td>
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<td></td>
<td>Tamilnadu Zari Limited (TZL)</td>
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<td></td>
<td>Weaving appliance supplier – Local (WAL)</td>
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<td></td>
<td>Punch Card Suppliers – (PCM)</td>
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<td></td>
<td>Punch Card Suppliers – Local (PCL)</td>
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<tr>
<td></td>
<td>Jacquard box suppliers – Madurai (JBM)</td>
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</tbody>
</table>
Fig 8.2
Proposed Cluster Map
CONCLUSION

The future of handloom industry depends on its capacity to accelerate the pace of diversification/modernization, improve quality and productivity which will help to reduce costs since there is no control over the prices of silk yarn and zari, the main inputs as also the output prices since competition brings down the prices. Technological upgradation is primordial to increase efficiency in production and for product diversification. All this will require concentration on developing the skills of manpower, both entrepreneurs and labor. The range and depth of training programs needs to be expanded and imparted through local institutions. New programs are sure to familiarize the labor with the use of sophisticated technology.

In the future, Arani will have to prove its competitiveness against other established and emerging locations in the world. Though the market size shall increase, the players competing for the same will increase even faster. The global market will mature towards perfection altering the existing parameters of competition.

The cluster linkages of Arani should be promoted into high degree of dynamism so that linkages for cooperation with other similar clusters are likely to be sustainable and mutually beneficial. This would help them to keep abreast of the latest trends in technology, markets, consumer tastes and designs. Besides, it would help the existing support institutions related to this cluster in developing new ways to help service their members and their target industrial units.

There is a necessity to assist the industry to shift into high value items, catalyze development of design capabilities for diversification, help expansion
into export markets, develop cluster to cluster co-operation at international level, promote technology up-gradation and improve labor productivity.

Being dynamic and competitive is not a one-time activity. It is important for someone to keep a close watch on the latest developments that take place especially in an industry that is dependent on exports based on fashion designs, international regulations and fast pace of technology developments. A clear review for diagnosis then leads to implementation of the solutions through several ways which need to be institutionalized. An association, howsoever futuristic it may be, will not be able to implement all the programs that need be, especially when the type of organization structure and capabilities required are going to be in variance. This calls for the setting up of institutions like Cluster Consortia and Cluster Development and Coordination Committee to steer the industry through global competitiveness. Secondly, industry cannot develop in isolation to the growth of its stakeholders. There is a need to provide thrust to upgrade the skills of weavers and ensure their wellbeing to develop a mutually beneficial relationship and provide conducive environment for growth and development of this traditional weaving cluster. Integrated efforts shall help a great deal to boost the competitive advantage of this Arani silk weaving cluster and retain its glory in the future.

**Suggested areas for further research:**

The following areas are suggested for further research,

- Exploratory studies to identify the potential for export markets
- Study on Expectations of the business buyers i.e., textile retail giants like Pothys, Chennai Silks, etc., from the cluster to strengthen the forward linkages with these channel members.
- Inventory analysis and production planning for Weaver Cooperatives
- Performance Assessment of Loom World chain of outlets
• Viability study of participating in the Apparel Parks and Handloom Export Processing Zone.
• Training needs assessment for the members of the principal production system of the cluster
• Action research on technology training needs, effective methods of imparting technology, measurement of awareness, knowledge and adoption
• **Issues** of internalization and e-commerce
• Study on competitiveness of Arani Cluster products over the powerloom goods and products of other silk clusters in India