CHAPTER VI
SUMMARY AND FINDINGS

Clustering have become the focus of attention with the understanding of its role in helping firms to overcome growth constraints, upgrade and compete in markets in a globalised world. Clustering acts as a survival tool for SMEs which faces difficulty to withstand in the era of globalisation. For attaining successful industrial development industrial clusters helps to complement market and government. Flexibility of the cluster often helps the participating firms to survive better in the markets than individual firms in the same industry.

Several economists emphasised the clustering of different types of industries all over the world. The pioneer among them was Alfred Marshall with his concept of industrial district in 1890. But after several years back the concept of clustering has got popularity. Industrial district concept is somewhat related to cluster aspect. The eminent economists who popularised the cluster concept includes Michael Porter, Hubert Schmitz, Nadvi Khalid, Thomas Brenner, Humphery, Rosenfeld, A Stuart etc.

During 1990s the planners, researchers, policy makers, economists turned towards the industrial cluster concept which can be implemented an important tool for SMEs development and as a helping hand for the decaying industries. SMEs faces different problems like lack of co-ordination, lack of information dissemination, lack of co-operation, lack of knowledge fragmentation etc. These problems can be solved to a greater extent through co-operation and better understanding among the firms. Clusters can provide such a situation and cluster act as a third institution to complement market and government for successful industrial development of the economy.
Clustering act as a solution to the industrial development in both advanced and less developed countries. In India, clustering has been implemented in different types of industries with the help of UNIDO. As it was found successful following the footsteps of cluster implementation in India, Kerala government also decided to implement clustering as a part of 2003 industrial policy for the SMEs.

Empirical research on export oriented clusters is required in the light of its role in the economy. Although the handloom industry have been a part of the industrial studies and discussion thereon but it has always been limited to the economic analysis of this traditional industry and most of this literature is delinked from the cluster debate and therefore does not address issues such as the role of information networks, transaction costs, trust, joint action and supporting institutions. This makes it worthwhile to study the industry from the perspective of cluster development. The study tries to analyse how the process of clustering have helped the handloom industry in Kannur district in withstanding the major challenges of economic liberalisation, competition from the power looms and maintenance of quality standards.

Handloom sector in Kerala is functioning in private as well as co-operative sector. In Kerala, handloom co-operative societies are mainly concentrated in Trivandrum and Kannur districts. In Kannur district handloom production is mainly for both domestic and export market. Based on its consistency in performance the societies have been classified into three groups- above average, average and below average. Earlier the societies belonging to the above average category were directly exporting its products to foreign countries. Now only two or three societies are exporting directly. The remaining societies of all the groups find their market by producing products for private exporters or for the merchant exporters. Many of the below average societies are in their survival fear. As a part of 2003 industrial
policy the Government of Kerala adopted cluster approach as a strategy for the survival of SMEs in the state including handloom. As a part of it, DDHPY scheme and IHD scheme were implemented in handloom sector.

The review of existing literature on various clusters and the studies on handloom industries provided findings on various aspects of the industry, its performance, productivity etc. The analysis of clustering both natural and intervened and its influences on the performance of the handloom industry have not been dealt in any of these studies. With the following objectives the study tries to explore the advantages from clustering and investigate the ability of the clustered firms to shift gears in the face of the challenges paused by the changes in the world scenario, overcome growth constraints, upgrade and compete in market in a globalised world.

**Objectives of the study**

1. Significance of the cluster approach for the handloom industry in the district.

2. Examining the backward and forward linkages in the handloom industry.

3. Analysing the efficiency of cluster approach and the influence of co-operation on firm performance.

4. Measure the intensity of linkage in the handloom clusters and the effectiveness of government intervention in the cluster development.

5. Suggest strategies for improvement of cluster development approach.
Hypotheses

The study investigates the following hypotheses -

- Raising of co-operation among firms belonging to a cluster increases their ability to compete in the market.
- There exist positive association between firms’ performance and co-operative behaviour.
- The clustering firms show strong backward and forward linkages.
- The government intervention in the form of cluster development programmes have resulted in better performance.

The study is based on the findings of field work carried out in Kannur district, one of the two main handloom clusters in Kerala. The study selected the co-operative societies for analysing the impact of clustering as it has experience of being a part of natural cluster as well as intervened cluster i.e., after the implementation of cluster development programme of the government. Qualitative information as well as quantitative data from secondary sources like annual reports, balance sheets, attendance register, transaction accounts etc was also collected from each co-operative societies covering the population of 36 handloom co-operative societies in Kannur district. Using the data collected from the co-operative societies the study analysed the system of networking in the cluster and the efficacy of clustering. The data were collected for twelve years by dividing the periods- the first phase before the implementation of the CDP from 1998-1999 to 2002-03 and the second phase after the implementation of CDP by the government from 2002-03 onwards. The second phase comprises of two phases-first phase in which DDHPY scheme was carried out for the period
2003-08 and the second phase from 2008-2010 in which IHD scheme was implemented under the CDP.

6.1 MAJOR FINDINGS OF THE STUDY

The following are the important findings derived from the present study:

1. Handloom industry- over view

During 1990s handloom industry witnessed adverse situation, with substitution of cheap powerloom products in place of quality handloom products. Due to lack of diversification of products and lack of technological upgrading the weavers’ are unable to find good market for their products. To solve the survival problem of handloom co-operative societies government intervened with DDHPY and IHD schemes under cluster development programme from the year 2003. The thrust of the scheme is setting up of a yarn bank, procurement and supply of basic raw material, common facility centers, design development and product diversification, publicity and marketing, skill upgradation, strengthening of handloom organisation etc. Clustering of handloom industries of Kerala offers a new hope to the industrial development of our state. Handloom takes an insignificant position with its contribution towards industrial sector. Co-operative and competitive behaviour existed together among the co-operative societies.

Pooling the services of different institutions like Hantex, IHTT, Hanveev, poly technique, NID, yarn society, district co-operative bank, NHDC etc. were in use for the enrichment of handloom industry. These institutions stand as cluster actors within the handloom cluster.
2. Raw Material:

Delay in getting raw material reduce profit margin. The problem is solved to a greater extent with the establishment of yarn society in 2008. With the establishment of yarn society, the advantages enjoyed by the societies are in the form of –

- Supply better quality of yarn to handloom societies.
- Speeding up of delivery of yarn to handloom societies was ensured.
- Reducing stock of yarn to the societies, by providing yarn to societies when they require.
- Shorten the time span required for order for getting yarn and its delivery.
- Increasing the capacity of clustered societies to diversify their products in accordance with the market demand.
- Reduction in transportation cost
- Easy availability of dyed yarn

3. Trends in Production

Diversity in product produced for domestic market and foreign exports. For domestic market societies produce lungi, dhoti, saree, mats, shirting, bed sheet etc. and for export they produce furnishing materials. Cottage nature of the society helps to produce small orders without much difficulty. Field survey result shows that a rise in output levels of more than fifty percent of the co-operative societies following the implementation of CDP is a rapid turnaround. From 1998-99 to 2009-10 it is seen that there has been a declining trend in the output for around seventy five percent of co-operative societies. There has been decline in the value of production of the co-operative societies in the years 1999-2000, 2002-2003, 2005-06, 2006-07 and 2008-09. Production of handloom industry in the state also show similar trend of
decline of 178,70,119 M. Sq. in 2008-09 to 92,55,154 M. Sq. in 2009-10. In the case of Kerala state also production of cloth industry shows similar trend in the same period. The production of cloth in the co-operative sector of Kerala declined from 72.31 MM in 1999-00 to 54.95MM in 2002-03. Later in 2003-04 the situation improved with increase in production to 58.38 MM which reached 68.26MM in 2007-08. However it drastically declined to 18.92 MM in 2008-09. This may be due to the phase out of the quota system and the global crisis.

4. Cost of Production

   Clustering enables cost reduction through sharing of infrastructure like electricity facilities, roads, water supply and drainage etc. Cost priority strategies is one of those strategies mentioned in the Porter’s competitive strategies. The handloom co-operative societies gathered geographically in an industrial cluster can reduce costs and provide competitive advantage.

5. Sales

   Due to lack of working capital many of the societies are unable to adopt proper marketing strategies. Survey results shows that advertisement or any other types of marketing strategies are not used for increasing the sales. For sales promotion, adequate financial assistance was provided to societies and organisations within India and abroad. This enhanced sales through advertisement, brochures, catalogues, market research, market survey etc. The percentage share of bulk sales has decreased from 74.2 percent in 1998-99 to 62.01 percent in 2001-02. Though the percentage share slightly improved in the next few years, again it started falling in 2007-08to 56.58 percent and further to 52.07 percent in 2009-10. Survey result shows that 25 percent co-operative societies were selling their products through Hantex. In the second phase from the year 2003-04 to 2007-08 witnessed an increase in sales
through Hantex. But in 2008-09 the sales had decreased. Domestic market covers around fifty percent of total sales of Kannur handlooms. The sources of domestic marketing are through exhibitions, retail textile shops and society’s own depots.

6. Marketing

Marketing of the product creates real problem for the societies especially for the local market. Due to the competitive nature of the handloom co-operative societies less inter firm co-operation exist between the societies for adopting proper marketing strategies. Societies are not in position to possess a specialised marketing team or advertise their product. Access to local market for local societies is possible through the local retail shops, exhibitions and Hantex. The societies produce the products for local market on the basis of demand for the product, taste and preference of the customers and taking into consideration the market trend.

7. Export

Exports are done on the basis of prior orders from foreign countries. The major export destinations are U.K, U.S.A, Japan, Netherlands, Hong Kong, Belgium, Sweden, Australia, Dubai and Switzerland. Only 8.33 percent societies are engaged in direct exporting. Others export through merchant/private exporters. The post MFA environment witnessed a set back on the exports. Reduction in export orders is due to reduction in exchange rate of dollar and also the reuse of products by the foreigners affected the export demand. Exporting societies are able to identify changing trends and the requirements which spill over to the rest of the societies of the cluster where the exporting societies reside. The survey result shows that only a few societies are entering into co-operative action and they are able to survive the critical situation created by liberalisation. Percentage share of direct export in
total sales were around 6.27 percent in 1998-99 which increased to 17.90 percent in 2003-04. But the direct export share has drastically fallen with only 1.68 percent of the total sales in 2009-10.

8. **Location Quotient**

Measurement of growth rates and location quotients for each industry in a cluster, as well as the total cluster determines where the regions comparative advantage lies. This method identifies the industries that employ more workers or produces more goods and services in the region than the national average for that same industry, assuming that by employing more workers or producing more than the national average the industry is producing more goods and services than the region alone can consume, thus the industries export the excess product out of the region. Location quotients may be calculated on the basis of industries employment or any other measures of economic activity. The Handloom industry in Kannur district contributes to 37 percent share of the total employment in the district and for all Kerala, the handloom industrial employment is 17 percent of the total employment of the state. The Location Quotient is greater than one with 2.17 meaning that the employment in Kannur district in Handloom industry are nearly two times more concentrated in the region than average. Handloom industry in Kerala in comparison to the national level of employment has a location quotient of 3.95 which means the state has around four times concentration than average with regard to the employment in handloom industry.

In respect of production also the share of handloom production to the total cloth production in Kannur district is 29.9 percent and it is 23.4 percent in the Kerala state and therefore the Location Quotient remains to be 1.64. Industries which have both high Location Quotient typically form a region’s economic base. This high Location Quotient indicates the importance of the
industry in the region and demands for particular attention to these industries not only for the jobs they provide, but also for their multiplier effect—the jobs they create in other dependent industries like retail trade and food services.

9. Advantages of clustering

Easy access to raw material, cheap labour, easy and better transportation, better technology and innovation etc. are the important advantages derived through the clustering of societies.

- Economies of scale are derived by producing large quantities and with product diversification after the introduction of clustering.
- Geographical agglomeration-Highly dynamic geographical agglomeration in production process
- Specialisation-It reduces the capital constraints faced by individual enterprises by distributing capital cost across small societies within the chain.
- Spatial proximity arises with the formation of intervened cluster.
- Co-operation

Various agglomeration benefits are generated by the clustering process. Societies are not required to hold large stocks of input. The clustering in the district resulted in concentration of skilled labour, the most frequently cited locational advantage. In addition, the technical development is enhanced with the increase in the flow of technical and marketing information through government agencies and training institutes developed as a result of the cluster development programme.

10. Inter firm co-operation (Horizontal co-operation)

Survey results shows that inter firm co-operation exist in the form of joint procurement of raw material by sharing transportation costs and
purchase in bulk. Machines are shared at times of bulk purchase and the breakdown of machines. The clustering societies co-operated in fields on sales promotion wherein 94.5 percent of the societies stated co-operation followed by sharing of labour. For majority of co-operative societies there has been no change in co-operation among the competing firms. But in other areas of co-operation such as joint labour training, procurement of raw materials and marketing the co-operation has intensified. More than 60 percent of respondents reported increase in co-operation with the suppliers of yarn. i.e., the yarn society formed under the cluster development programme ensures timely supply of yarn to the weavers at the cluster. Horizontal co-operation is not intense, yet the existence of local institutions including the trade associations, the Chamber of Commerce etc. helped to develop inter firm co-operation.

11. Positive Externalities

Information spillovers concerning production technology and product design of the competitors, the availability of semi-skilled or skilled labour force, easy access to raw materials and machinery and the lower search for customers as the buyers come from all over to those places where they can choose from the variety of products available all entails positive externalities.

12. Cluster Development Programme and Performance of Societies

Before the DDHPY scheme implementation, 90.63 percent of co-operative societies showed a declining trend in output. Based on the performance of the societies, societies are divided into average, below and above average (Table 4.2) and the trend in output is analysed for three phases under study. This shows that a clear majority of co-operative societies in the below average group have responded to the cluster development programme
of the government under the DDHPY scheme. However in the third phase the societies in the below average category lost their position.

During the second phase of implementation of CDP, the government gave priority to all societies for product diversification and for making internal improvement through different strategies which were observed in changes in production and sales increase in the case of above average, average and below average societies. But during the third phase there is change in scheme implementation and all societies are not included under the purview of IHD scheme. Only those societies which have a loom capacity of 300-500 are considered as a cluster. Those societies which are not included in this category belong to the category of group approach.

Analysis results during second phase shows that co-operative society’s performance in production, investment and linkage capabilities were embedded in the cluster. The yarn procurement was satisfactorily going on during the second phase. More than 75 percent firms have not encountered any particular problem during this period.

13. Linkages- Horizontal and Vertical

In terms of backward ties it appears that links with suppliers of raw materials have led to significant improvements in the quality of yarn and lowering the cost. Forward ties with the buyers have grown in importance in the cluster, particularly for maintenance of quality standards. The horizontal ties particularly with the association have helped the societies to attain the technical know-how required to withstand the competition and maintain the required quality standards. The horizontal ties with the association enabled small scale units to gain access to the technical knowledge which were prohibitively costly for them. The government intervention through cluster development program contributed in this direction of co-operation.
There are still areas where there remains a collective failure within the cluster. The existing problems with regard to poor infrastructure, poor sanitation, low safety and health standards remain unresolved. Joint actions are required to bring about significant improvements in working conditions, health and safety standards, pollution control and overall improvement of the physical environment. Similarly, the environmental costs, the poor condition of local infrastructure—especially power supply, roads, railways—act as an inhibiting factor on the clusters potential growth. In these areas of concern, the clusters have not yet explored the possibility of joint action. In order to increase their productive efficiency and meet the standard requirements, handloom societies will have to address these issues jointly.

The survey results show that a clear majority of societies have made improvements in their performance, by maintaining the quality standards as well as timely delivery of finished products. During the second phase of the study, following government intervention in clustering, a large majority of the societies have increased co-operation in vertical inter firm relationships. However in maintaining relationships with the other local producers they still hesitate. Therefore it can be concluded that the cluster-level-findings indicate more vertical relationships over horizontal relationships. The survey findings show a positive and statistically significant relationship between an increased involvement with the business association and a strong performance.

The analyses of the survey data have proved the impact of government intervention, through cluster development programme, on the performance of handloom industries. It is seen that co-operation can be increased and effectively carried out and the state has a role to play here. But way of subsidisation, procurement of yarn at low cost through yarn depot, the coordination with the trade associations, training of labour provided the cluster’s producers with a way through the crisis after the liberalisation.
14. Co-operation and Performance:

Four types of inter firm relationships have been identified; ‘bilateral horizontal’ (relationships with other local producers of handloom), ‘backward–supplier’ (relationships with suppliers of inputs like yarn, dyes and chemicals), ‘backward–subcontracting’ (relationships with local subcontractors) and ‘forward’ (relationships with buyers). The increased inter firm co-operation on exchange of information and experience was not visible in the earlier phase of clustering. But the government intervention helped on issues of labour training, quality control, joint product development and in negotiating payment and delivery conditions. Survey results shows that there has been a clear increase in co-operation with suppliers of inputs and buyers of the final product. None of the societies showed decline in co-operation with the suppliers following the intervention. Forward co-operation with buyers increased substantially with 74 percent of co-operative societies and increased at least a little with another 18 percent of co-operative societies. In contrast, increase of co-operation with the subcontractors was only negligible. The survey results show that vertical inter firm relationships with suppliers of yarn and dyes, with buyers, have been strengthened. The government intervention through cluster development programmes helped in increasing co-operation in areas of labour training and quality control. No substantial increase in the bilateral-horizontal co-operation is evident in the survey results.

The hypothesis that the since implementation of cluster development programme, performance of handloom co-operative societies has been positively influenced by co-operation with the buyers and other firms is confirmed by regression analysis covering all the co-operative societies in the district. Horizontal co-operation with other local handloom firms and vertical co-operation with the buyers contributes significantly to the co-operative
society’s performance. To estimate whether there is a casual relationship between increasing cooperation and improved performance, the regression analysis of the following model is carried out. The sales (PERFSALE2) being the dependent variable is being regressed by the independent variables, inter firm co-operation (INTERFIR2), backward co-operation (BACK2) and forward co-operation (FORW2)

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\text{PERFSALE2} = \beta_1 + \beta_2 \text{INTERFIR2} + \beta_3 \text{BACK2} + \beta_4 \text{FORW2}
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The co-operative societies address concerns of improving their ties with buyers independently of their relationships with local suppliers, other societies and subcontractors. Co-operation in forward and inter firm positively influence performance. It is also proven that the co-operation with the buyers remains to be most closely associated with growth performance. This implies that greater co-operation with the buyers and between the societies has a positive and significant influence on performance.

6.2 SUGGESTIONS AND POLICY IMPLICATIONS

Cluster policies have to be directed towards provision of sector-specific services, support of collective action or information dissemination. The SME policies should be carried out together with the specific cluster policies as it is essential for solving problems of inefficiency at the firm level. The cluster policies should give opportunities for firms to interact with other firms for technological upgradation, knowing trends in the market. The innovations are very few in number and technology upgradation is rarely carried out. The training programmes should be collectively carried out without disturbing the working days of the firms and properly with practical sessions so as to enable the trained labourers to use their skills in the production process. The advantages of the cluster development programme did not reach all societies as envisaged due to lack of networking and co-operation within the cluster.
Awareness of the benefits of clustering will help in directing the societies towards networking. The establishment of local stakeholder dialogue will help in identifying economically viable projects of collective action, such as joint purchasing of raw materials or hiring of workers or marketing. Societies should be given general platforms to discuss their problems so as to derive at solutions which can be resolved in a joint effort. This enhances sharing of organisational know-how and linking firms up with support institutions and associations.

The cluster development programme set forth by the government under the IHD scheme was not able to bring forth the expected gains. The scheme provided generous incentives without stipulating commitments on the part of the beneficiaries. Just creating support institutions and expecting that firms will use them turned out to be unrealistic. The training programmes did not bring out the desired effects as the labourers still were not able to handle the upgraded machinery. They were also not provided any incentive for acquiring the skill and so were reluctant in using it. The workers if they were provided adequate support mechanisms and incentives for their increased productivity, the schemes of the government would be capable of improving performance.

The clustering groups should be given subsidies for joint action. As the size of each society is very small it will be difficult for them in procuring yarn, dyes and chemicals at a reasonable price and timely delivery. The yarn society should be active and should be able to supply the raw materials to its members at a no profit- no loss basis.

Though the societies show a high level of integration with the buyers, co-operation between the firms in respect of sharing of equipments and technical knowhow are rare. Policies should direct towards creating an environment that stimulates and supports learning and innovations.
The associations should organise meetings and training programmes where the societies must be able to articulate their demands. The increased competition and technological dynamism in the field demands for the handloom producers to be up-to-date on technological advancements, market avenues and regulations. The service providers, associations and state promotion agencies can bring forth measures to help the producers in updating themselves. The associations should be able to establish consultation mechanisms between the societies, local government bodies and the traders. They may help in organising exchange between the firms and training institutions by providing the correct information regarding the requirement of the firms. Experiences has shown that initiation of a local strategy formulation effort involving the government bodies, societies, other firms and stakeholders have helped in improving performance. (OECD, 1996, 1997)

Under the cluster development programme two schemes were introduced and survey results showed that the co-operative societies were not able to reap the benefits of the second scheme as it was mainly directed towards giving training for the workers. The societies were facing various other problems which are not paid much attention in the new scheme. Frequent evaluations about the scheme are to be done for rectifying mistakes and for improvement. For universal application of the schemes the problems of all societies are to be taken into consideration and may implement similar schemes for all societies. The schemes introduced must have continuity. Otherwise whatever changes are brought flops in the next scheme.

The societies may begin to co-operate more intensively if they see the advantages of co-operation. The societies should be made aware of their drawbacks by way of comparisons with handloom firms elsewhere. This helps in raising awareness for the necessity of stronger efforts to build competitive advantages. Co-operation efforts in core activities such as technology
development, design or marketing may be low when the firms lack trust. But as and when they see the successful co-operation experience, the trust emerges resulting in enhancement of the co-operation in these core activities.

In areas of environmental protection the intensified inter firm co-operation can play a prominent role (Meyer-Stamer 1997). The effluent plant for water treatment required by the handloom firms can be operated jointly which will help in environmental protection. Testing facilities of quality of yarn and products may be carried out by the agencies and there is also a need to create quality awareness among the societies.

6.3 LIMITATIONS OF THE STUDY

Access to information from the societies is very difficult. They often do not keep records and at times also were reluctant to disclose financial matters. Information gathered on finance related aspects was rather weak, if not altogether wrong. Due to lack of proof or record of their financial transactions the information provided by them could not be verified and had to be taken on its face value. Often for the analysis, the study had to rely upon the approximate percentage rates stated by the officials concerned in the society. The societies were tempted to inflate their sales for status reasons but would deflate profit margins so as to gain government help and support. Most of the societies worked on orders and at times received key raw materials from the exporters or traders.

It would have been useful to check the information received from the societies with that of the suppliers and buyers by interviewing the various link units with whom the societies have entered into a relationship. But due to constraints of the study, it was not possible to interview all link units, however, strategic linkages with the business associations and the government agencies/institutions were carried out.
The quantifications of the various findings were not possible which made comparisons difficult. The respondents had to measure its linkages on the basis of three point scale as ‘a lot’, ‘a little’ or ‘never’.

The outside actors who had critical influence over the development of the clusters were not included, as the focus of the study was only on the co-operative societies and on the local institutions within the district.

6.4 CONCLUSION AND AREAS OF FURTHER RESEARCH

The implementation of cluster development programme by the government created mixed reactions from the societies. The survey findings shows that the second phase of the study period i.e., from 2003-04 to 2007-08 was really a golden period for majority of the societies. But with policy changes made following the change in the scheme, adversely affected the growth path. During the second phase many of the clustering advantages were enjoyed by the societies, production increased and new workers were attracted towards the job. But the situation changed after it. The clustering of the societies has indeed helped the co-operative societies and the co-operation and linkages have reaped more benefits following government intervention.

The analysis of linkages–forward, backward and horizontal existing among the handloom co-operative societies of Kannur district helped not just to identify the bottleneck but also sources of strength. The key advantages of clustering, access to raw material, access to markets, acquiring training and sharing technology has helped the co-operative societies to an extent to overcome bottlenecks. But the linkages need not be so strong to necessarily have all these enabling features of clustering. The study helped to understand the depth of the cluster and the quality of relationships existing among the handloom societies. However, due to its limited coverage, the study findings necessitate further research for both theoretical and practical purposes. The
role that public policies and programmes have to evolve should be in accordance with the growth trajectory of the cluster. As Schmitz (1995) illustrates, competitive factors can both lead to the temporary dissolution of elements of clusters and serve as shocks or crisis that stimulate than eventually to higher levels of co-operation. If the basis for collective or co-operative action within the cluster have eroded, it is likely that some societies will begin to develop networks outside the cluster and prosper, and others will simply become non competitive. The government intervention may be required depending upon a clusters ability to sustain a basis for co-operative action. Further in-depth research in the area will help to gain better understanding of the issue involved in designing policies for SMEs growth and competitiveness in an increasingly open international economic environment. This will help the policy makers in evolving strategies for intervention and assisting them to serve as engine of an economy.