

Cluster Development Programme – an Empirical Study of Karnataka

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ABSTRACT

Cluster is the group of (SME's) Small and Medium Enterprises which are involved in the production of same or similar types of product/services, who have got common opportunities and threats in a particular geographical area, or SME units which are involved in the same type of business activity, as per the report of Karnataka Government we have 4,46,811 SME units operating in Karnataka, which employs around 26 Lakhs employees, with an investment of Rs. 14,99,561.47 Lakhs. So it means that, virtually we have got a huge amount of cluster of SME units. Now the question is are they working together? The answer in most of the cases is No, means apart from cooperating with each other; the SME's are competing with each other. Because of this SME's face problems like poor access to financial facilities, outdated technology, improper marketing of products, unskilled labour, operational inflexibility and harassment by inspecting officials, this in turn leads to sickness. The present study is intended to study about the Cluster Development Programme, which is sponsored by the Government of Karnataka as well as various sister units of Central Government. Government providing financial support up to 90% of the projects total cost, various institutions like UNIDO, DC(MSME), DC(Handicraft), DC(Handlooms), State Bank of India, Ministry of MSME/KVIC, NIESBUD, Noida, Central Bee Research & Training Institute, Pune NIMSME are institutions which are working towards the growth and development of clusters in Karnataka as well as all over the India. The study makes an attempt to know the registered clusters in the state of Karnataka, and the institutions which are supporting for the development of the same.

Keyword: - Small Scale Industries, Industrial Clusters, Donor Agencies, Implementing agencies, Cluster Development Programme, Soft Interventions, Hard Interventions,

1. Introduction:

In the 21st century we expect rapid growth in the business, but it is not so easy because we have got much more competition in almost all the business sectors. It can be anything from the manufacturing to the service industry, from small to big multibillion industries. Big multibillion industries have got many facilities like proper financial facilities, huge skilled manpower, availability of better quality of raw materials at very competitive price, the most important one is they have got high technological advantages, because of which they will have economies of scale. If we consider small scale industries all the above factors will act on a opposite direction, that is they will not have appropriate financial facilities, poor quality of man power, out dated technology, raw material cost is very high sometimes they will not get better quality of raw materials, cost of production is high because of which their profit margins are very low. Since most of the tiny, small & medium enterprises face these difficulties, they lead to sickness. "An SME is very often too small to capture the market opportunities, because of the suboptimal plant capacity, quality standards procurement & marketing capabilities unable to achieve economies of scale"¹, because of these problems they lack in the long term perspective & not able to cope up with changing dynamics of the business.

Since SME's are facing these many problems these can be best solved by the formation of clusters. "A Cluster is a group of enterprises located in same geographical area and producing same or similar products"², there is nothing wrong if I call Alfred Marshal as the father of cluster concept, because he is the one who introduces the term in the beginning. He examined the industrial districts found in Europe & explained that main reason of localization of industries are physical condition such as climate & availability of raw material.

¹ T. Koti Reddy (2005) *Problems & Prospects of Small Scale Industries – in India*

Studies found that formation of SME clusters is very useful & they almost solve all the problems which SME's face in their routine business activity. "The association becomes a necessity in order to face the intensification of competition on diverse local, national & International markets. It is also a good motivation to finish forreaching projects"³ it says that the association of small & medium enterprises becomes necessary to solve the complex business problems. We have got many examples which tell that Clusterization has played a major role in the overall development of the SME units. "Allepy Coir Cluster, Bangalore – Machine tools cluster, Chanderi – Handlooms cluster, Chittoor – Food processing cluster, Coimbatore – Wet Grinder Cluster, Howra – Foundary cluster & Kannur Handlooms cluster"⁴ are the examples which tells that working together works.

2.Review of Literature :

Clustering has become the "Key term" in economics of innovation. The concept of clusters is a turning point in the traditional approach to co-operation between enterprises, as well as between business and science (Arkadiusz Michal Kowalski 2012). The cluster development elements, and initiatives to improve the competitiveness of the elements, lies inside the clusters (Sudesh Kumar 2005). The new entity of cluster provides a series of advantages such as, the complementary of the network, the diversity of the network, intense interpenetration, the development of a cooperation culture, flexible organization, wages improvement, cooperation and competition, geographical cluster in certain area & various specialization reunited by interest and technology (Elena Enache & Others 2014). There are several legitimate rationales for government involvement in cluster development, all of which are in some way related to competitions, innovation, and the presence of externalities (Stanislav Bucifal 2008). The facilitation of a collective industry group was seen as a way to continuously investigate common issues by providing solutions through indentifying common barriers for SMEs specifically (Susu Nousala 2009). Whether it is possible to create a cluster, just based on a layout plan in any region, remains therefore questionable, although the approach of simple master planning of highly complex innovation structures is still considered feasible among numerous regional and local administrations all over the EU (Rolf Bergs 2006).

Regions with industrial clusters, according to porter's version, attain a global competitive advantages over regions that do not have clusters, and firms within a successful clusters achieve competitive advantages over firms who are not trading members of a clusters (Thomas E. Vass 2008). Clusters can have an economic and social impact on competitiveness and innovation.

A cluster approach on open innovation" is reliant on interactions between university researches, dynamics of entrepreneurship, availability of venture capital supplied by the private sector and a policy framework of support, provided by the public administration (Daniela Doina Fundeanu 2013). Cluster is the form of organization of a group of entities companies, especially small and medium size companies, institutes of research etc., (Alexander 2013). Traditionally the concept of competitions is that of a firm in Jalandhar competing with a firm in Jalandhar. However, globally the concept of competitions has changed and a firm in Jalandhar competes no more with a firm in Jalandhar (Sandeep Vij 2005).

The coir cluster at alleppey provides jobs to over 80,000 artisans and has a turnover of Rs. 1,500 crores (V Padmanand 2002-03). The Bangalore Machine tools cluster was able to save Rs. 7.7 million because of CDP, and 28 BDS (Business Development Service) Providers gives technical assistance to more than 100 units (Jitenra Kalra 2002). Because of the Chanderi – Handloom cluster the SME owners able to widen it Market, able to make different designs, they got the credit support from the financial institutions etc., (Ashwini Saxena 2003). The Chittoor Fruit Processing Cluster (CFPC) is the largest cluster in its kind in India, they had the attitude of "swim or sink together" (S. Srinivasa Rao 1998). Clusterization of Coimbatore – Wet Grinder were able to solve problems like price and quality of critical inputs, provided credit linkages, expanded market and new product were introduced to the market (V. Padmanand 2004). Financial institutions like SIDBI (Small Industrial Development Bank of India) have given financial assistance to Howrah Foundry Cluster because they had the strong mutual understanding & trust with each other (V. Padmanand 2004). Jamnagar Brass Parts cluster, before commencement of programme, the cluster was facing a steady decline. Some firms were also thinking of alternative business. This situation has changed. Some of the macro parameters of the cluster post interventions are improved almost double (Sanjay Pal 2002)

3.Defining SME Clusters & the Role of Government as facilitator:

Economic geographers have tried to explain the existence of clusters on the basis of cost minimization or maximization of profit. The preferred locations for new entrepreneurs are those where demand is large or supply of

² Alfred Marshal (1910) *Industry & Trade*

³ Elena & Others (2005) *The Cluster Association – A form of Business Development*

⁴ Foundation of MSME Clusters (2006) *Working together Works*

inputs is more convenient and these are places where other producers of similar goods are already located. Other economists have argued that the competition that exists between firms located in a cluster drives productivity and innovation creating new resource endowments such as skilled staff and technological know-how. Human capital has also been identified by some as the main engine of growth.

3.1 Cluster Definitions

“Clusters are a geographically proximate group of interconnected companies and associated institutions in a particular field linked by commonalities and complementarities. Clusters encompass a array of linked industries and other entities important to competition including governmental and other institutions – such as universities, standard setting agencies, think tanks, vocational training providers and trade associations”⁵

“Geographically bounded concentration of similar, related or complementary businesses, with active channels for business transactions, communications and dialogue, that share specialized infrastructure, labour markets and services, and that are faced with common opportunities and threats.”⁶

“Regional clustering has been used to describe industrial districts of small crafts firms, high technology centers, agglomerations of financial and business service firms in cities, company towns, and large branch plants and their supply chains.” “Clusters at least must be characterized along relevant dimensions if appropriate policies are to be devised (these include) density breadth depth activity base growth potential innovative capacity.”⁷

Table -1: Government Grant to SMEs under CDP Scheme at different Levels⁸:

Sl. No	Components	Maximum component cost	GoI Grant (% against component cost)
1	Diagnostic Study	2.50 (Lakhs)	100%
2	Soft Interventions	25.00 (Lakhs)	75% (For cluster with more than 50% micro, village based, women. SC/ST the grant is 90%)
3	Preparation of Detailed Project Reports (DPR) for establishment of hard components	5.00 (Lakhs)	100%
4	Hard Interventions (Setting up of CFCs like Testing Facility, Design Centre, Production Centre, Effluent Treatment Plant, Training Centre, R&D Centre, Product Display Centre etc.)	1500.00 (Lakhs)	70% (For cluster with more than 50% micro, village based, women. SC/ST the grant is 90%)
5	Infra Structure Development (Development of land, provision of water supply, drainage, Power distribution, construction of roads, common facilities such as First Aid Centre, Canteen etc.)	1000.00 (Lakhs)	60% (For cluster with more than 50% micro, village based, women. SC/ST the grant is 80%)

(Source: Ministry of MSME)

4. Profile of Karnataka:

Karnataka, a state in southern India, is the 8th largest state in terms of area and 9th largest in terms of population. It comprises of 31 districts. The state’s capital city is Bengaluru. The share of primary, secondary and tertiary sectors in the state’s economy stood at 17.20 percent, 26.50 percent and 56.30 percent respectively in 2011-12. The average NSDP (Net State Domestic Product) growth rate between 2004-05 and 2011-12 was 14.7 percent.

⁵ Michal Porter (2000) *Locations, Clusters and Company Strategy*

⁶ Rosenfeld (1997) *Cluster Policies Whitebook*

⁷ Enright (1998).

⁸ Ministry of MSME

4.1 Infrastructure Overview:

- **Roads:** Total road network in the state stands at 231,997 km (2012-13)
- **Railways:** As of March 2011, the state had railway network of 3,073 km
- **Airports:** The state has five domestic airports. These are located in Bengaluru, Mangalore, Hubli, Mysore and Belgaum. International flights operate from the airports at Bengaluru and Mangalore
- **Ports:** There are 11 ports in Karnataka, of which new Mangalore is a major port.
- **Power:** As of January 2013, the state had a power generation installed capacity of 13,596.28 MW which consisted of 7279.56 MW of state share, 4720.63 MW of private share and 1596.09 MW of central share.

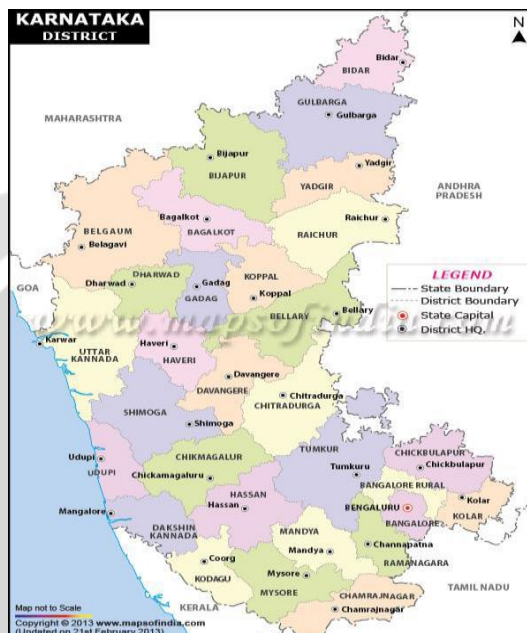


Fig -1: Karnataka Map

4.2 Industrial Profile of Karnataka:

Number of Small Scale Units registered up to 2012-13 are 4,41,811 units, having an investment of Rs. 14,99,561.47 Lakhs and gives employment opportunity to 25,98,654 people, which means around 4.3% people directly or indirectly employed in Small Scale Industries,

Table -2: Top Ten Manufacturing Units in Karnataka

Sl.No	Products	No. of Units	Investment	Employment
1	Manufacturing of Wearing Apparel; dressing and Dyeing of Fur	5252	12457.5	24518
2	Others	2008	26524.11	17007
3	Manufacturing of Food Products and Beverages	1551	23405.31	15118
4	Manufacturing of fabricated Metals Products, Except Machinery and Equipment	1841	24008.24	13193
5	Manufacturing of Textiles	2259	11513.45	11356
6	Manufacturing of Other Non-Metallic Mineral Products	652	10664.11	6901
7	Manufacturing of Machinery and Equipment N.E.C	838	13079.1	6751
8	Manufacturing of wood, products of Wood, Cork, Articles of Straw & Plating Materials, except furniture	1885	2166.45	5549
9	Computer and Related Activities	386	4428	4740
10	Manufacturing of Furniture, Manufacturing N.E.C	924	2296.27	3897

(Source: DIC, Bangalore 2011-12)

5. Objectives:

- To study about the types of clusters operating in Karnataka.
- To explore Clusterization Opportunities available in the Karnataka State.
- To know about various donor agencies and their role in the development of clusters in Karnataka.
- To explain the role played by the various implementing agencies in Karnataka.

6. Methodology:

The study is conducted purely on the basis of secondary data. The data have been collected from published sources in the cluster observatory, MSME, UNIDO, clusters & clusters India and state government websites, annual reports, articles, newspapers and related literatures to be made. To study about the types of clusters existed in Karnataka, and to know about the various institutions supporting clusters development programme in Karnataka, the researcher has tabulated the data collected from various sources to fulfill the said objectives. Tables and graphs used for birds eye view as and when required.

7. Limitations of the Study:

The data used in this study have been collected from the various websites like cluster observatory.org, MSME, UNIDO, Clusters.org, and Clusterindia.org and from various reports of central and state government, annual reports and available literature; the data have been tabulated by using tabulation method. Hence, analyzed results and findings are subjects to the accuracy of the information collected from the above sources.

Table -3: Division of Clusters and Number of Clusters in Karnataka

Sl. No.	Type of Cluster	No. of Units
1	Industrial Clusters	79
2	Handicraft Clusters	156
3	Handloom Clusters	20
4	Micro Enterprises Clusters	3
5	Service Clusters	3

(Source: <http://www.clusterobservatory.in/>)

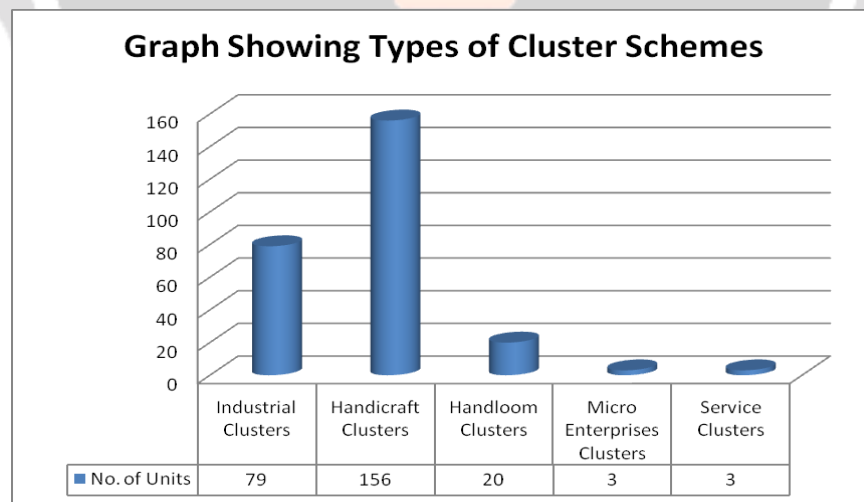


Chart -1: Graph Showing Number of Clusters in Karnataka

The above table shows that clusters will be broadly classified in 5 types, Karnataka has 79 industrial clusters. **Industry clusters** are groups of similar and related firms in a defined geographic area that share common markets, technologies, worker skill needs, and which are often linked by buyer-seller relationships. Karnataka has got 156 handicraft clusters, An initiative of DC, Handicrafts, Ministry of Textiles, Govt. of India to showcase different products made by Cluster Artisans across India. Artisans are provided with technical / marketing know-how for

making these products by implementing agencies which are partnered by DC, Handicrafts for the welfare of these Artisans. The handloom sector is known for its heritage and the tradition of excellent craftsmanship. It provides livelihood to millions of weavers and craftsperson. The industry has not only survived but also grown over the decades due to its inherent strengths like flexibility of production in small quantities, openness to innovation, low level of capital investment and immense possibility of designing fabrics. As of now there are 20 handloom clusters are working in Karnataka State. a business operating on a very small scale, especially one in the developing world that is supported by microcredit for example, Bee Keeping, Manufacturing of Khadi Products etc, The state of Karnataka has only 3 such clusters, and finally Karnataka has 3 Service clusters, these are nothing but the service oriented business units like tours and travels, educational institutions and any other related business activity.

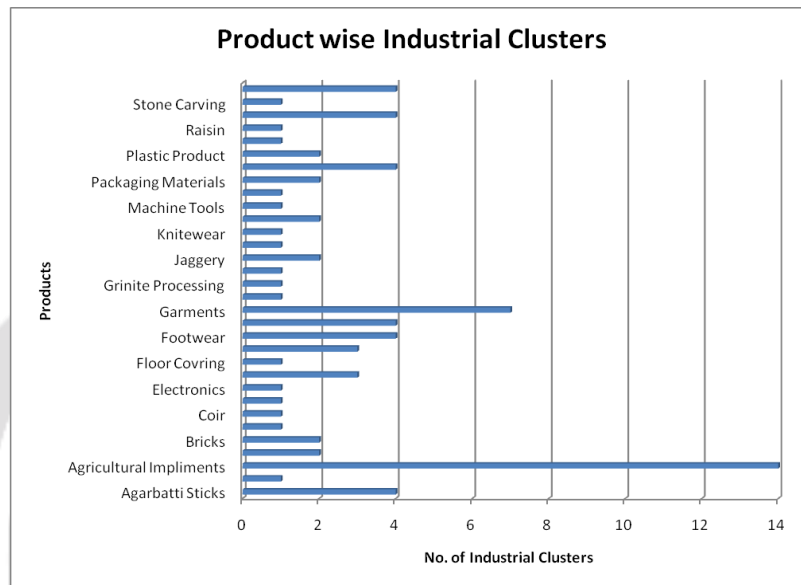


Chart -2: Product wise Classification of Industrial Clusters in Karnataka

As we have already discussed, there are various types of clusters, one among that is industrial clusters. The above graph shows product wise number of industrial clusters existed in Karnataka. The highest numbers of clusters are from the agricultural implements (14), there are 7 garments clusters & agarbatti, footwear, foundry, paper product, rice mills and textiles, these industrial have got 4 clusters each. Apart from this almost all the industrial sectors have got at least one or more than that clusters at Karnataka.

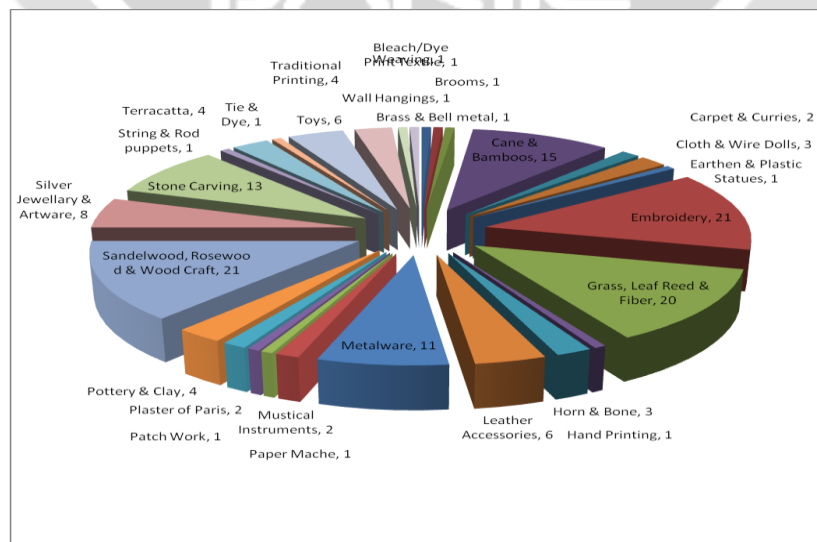


Chart -3: Product wise Classification of Handicraft Clusters in Karnataka

The above pie chart shows the number product wise classification of Handicraft clusters at Karnataka, there are 21 Embroidery & Sandalwood, Rosewood & Wood Craft Clusters, 20 Grass leaf, Reed & Fiber clusters, 15 Cane & Bamboo Clusters, 13 stone carving clusters & we have got a good number of other Handicraft clusters at Karnataka.

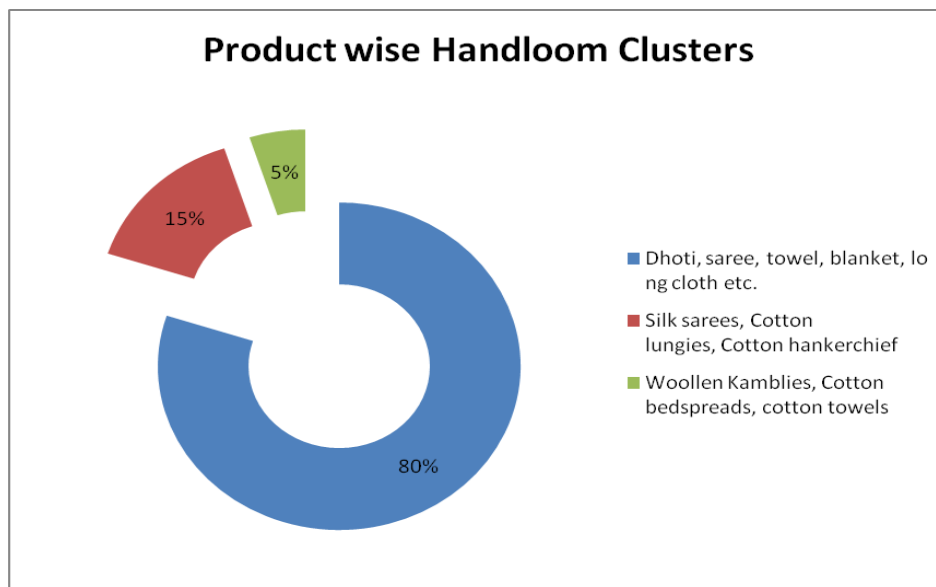


Chart -4: Product wise Classification of Handloom Clusters in Karnataka

There are only 20 Handlooms clusters existed in Karnataka, out of which 16 are Dhoti, Saree, towel, blanket & long cloth clusters, 3 Silk saree clusters and 1 woollen Kamblies cluster. The reason behind having only 20 handloom cluster, main raw material for this industry is cotton which is not grown all over the Karnataka, much of the cotton has grown in the northern part of Karnataka, like Dharwad, Ballary, Gulburga, Bidar, Gadag & Bijapur Districts, that's why out of 20 handloom clusters 8 Handloom clusters are located in the North Karnataka Districts.

8. Role of Various Institutions in Cluster Development:

Formation of a cluster is not an easy task, it consumes a minimum of 3 years of time, has a lengthy process, requires cooperation from all the SME owners, must involve people from outside like Cluster Development Agent, Cluster Development Executive, Cluster Consultant, needs to have expert from the various educational institutions, & the most important support from the various Government, Semi – Government and Non Governments institutions, at least one of Special Purpose Vehicle (SPV) member from the government body like DIC, MSME, DC(MSME), or any other government official. It requires intervention from the various institutions, the institutions will be broadly classified into 3 categories, they are:

- 8.1 Donor Agencies.
- 8.2 Implementing agencies and
- 8.3 Technical Agencies

8.1 Donor Agencies:

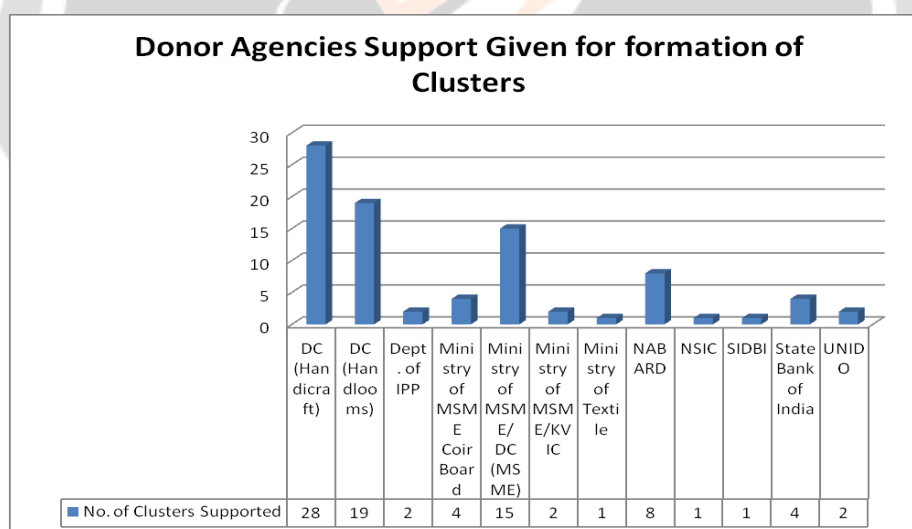
The Donor agencies are those which gives assistants for the formation of the clusters, these agencies plays a vital role, formation of clusters without donor agencies is impossible, donor agency is the ultimate sanctioning authority of Clusters. All over India there are 12 Donor agencies working. They assess the project feasibility and gives permission to form clusters after compliance of all the required procedure. Various developmental agencies are working for promotion of MSMEs and are adopting cluster development approach to meet this end. The main thrust of the Office of Development Commissioner (MSME) is promotion of MSMEs through cluster development. Development Commissioner (Handicrafts) is working for the development of handicraft units through cluster development approach. The following ministries/departments and agencies have undertaken cluster interventions:

Table -4: List of Donor Agencies working for Clusters and Number of Clusters in Karnataka

Sl. No.	Donor Agency	No. of Clusters Supported
1	DC (Handicraft)	28
2	DC (Handlooms)	19
3	Dept. of IPP	2
4	Ministry of MSME Coir Board	4
5	Ministry of MSME/ DC (MSME)	15
6	Ministry of MSME/KVIC	2
7	Ministry of Textile	1
8	NABARD	8
9	NSIC	1
10	SIDBI	1
11	State Bank of India	4
12	UNIDO	2
Total		87

(Source: <http://www.clusterobservatory.in/>)

Though here have been cluster interventions as early as 1987 by State Bank of India, but the work on cluster development started majorly only in this millennium i.e. after 2000. All the above organizations put together have made 87 cluster interventions at Karnataka State. The chart below gives the name of the organization with number of cluster interventions. There has been maximum number of cluster interventions, DC (Handicraft) has given maximum support to 28 clusters, while there were 19 cluster interventions given by the DC (Handloom), 15 cluster interventions given by Ministry of MSME/ DC(MSME), Least interventions given by the Ministry of Textile, NSIC & SIDBI which has given support for only 1 cluster. The chart below shows cluster interventions undertaken by various developmental/donor agencies.

**Chart -5:** Donor Agencies Support Given for Formation of Clusters

8.2 Implementing Agencies:

Implementing agencies are usually from the District or Taluka place from where the application for Cluster is received. Implementing agencies acts as a bridge between the cluster applicant and the sanctioning authority, one of the government official acts as a life time member on rotation of Special Purpose Vehicle (SPV), SPV is nothing but Governing Body Members of the particular cluster. Each cluster needs to have a SPV and it is mandatory that at least one Government official should be the part of the SPV. SABALA, Bijapur, IDPMS Bangalore, Sampart Bangalore, UNIDO, MEME-DI, Bangalore, MSME-DI, Hubli, Karnataka Handloom Development Corporation Ltd COHANDS, New Delhi are the few examples of Implementing agencies.

8.3 Technical Agencies:

These agencies give technical assistance to the clusters, which may not be necessary for all the clusters, as per the need of the industry they provide training to the cluster member units (SME owners) and to the employees. The training can be on the job training or of the job training, it gives assistance in the marketing activity, technological up gradations, quality matters, financial assistance to the clusters, etc. (Entrepreneurship Development Institutions of India (EDII), United Nations Industrial Development Organization (UNIDO), NIESBUD, Noida, Central Bee Research & Training Institute, Pune NIMSME are the examples of the agencies which give technical assistance.

9 Findings

- Government of India gives a subsidy of 75% (For cluster with more than 50% micro, village based, women. SC/ST the grant is 90%) of the total project cost, except land & Building cost of the clusters.
- Clusters will be broadly classified into 5 types, they Industrial clusters, Handicraft clusters, Handloom clusters, Micro enterprises clusters & Service clusters.
- Karnataka state has 4,46,811 SME units, with a total investment of Rs. 14,99,671.47 Lakhs, employing around 26 Lakhs people, has only 261 Clusters (79 industrial clusters, 156 Handicraft clusters, 20 Handloom clusters, and 3 micro & 3 Service clusters) if we consider that average 100 units in each cluster that comes to 26,100 SME units only are the part of existing clusters, which is hardly 5.8% of the total registered SME's of Karnataka State, which clearly tells that still there is enough opportunities to form clusters for almost all the industries.
- Product wise industrial clusters show that in Karnataka state there are 14 clusters of Agricultural implements, 7 Garments Clusters, Agarbatti Sticks, Footwear, Foundry, paper product, Rice Mills, & Textiles each has got 4 clusters and 3 Engineering equipments & 3 Food Processing clusters in Karnataka.
- Product wise Handicraft clusters show there are 21 Embroidery, 21 Wood Craft clusters exist in Karnataka, and 20 Grass, Leaf, Reed & Fiber clusters operating, 15 Cone and Bamboo clusters, 13 Stone Carving Clusters and 11 Metal wear clusters working in Karnataka, there are few other clusters like Toys Cluster, Tie & Dye Cluster, Leather Accessories operating in Karnataka State.
- Only 20 Handlooms clusters existed in Karnataka, out of which 16 are Dhoti, Saree, towel, blanket & long cloth clusters, 3 Silk saree clusters and 1 woolen Kamblies cluster. The reason behind having only 20 handloom cluster, main raw material for this industry is cotton which is not grown all over the Karnataka, much of the cotton has grown in the northern part of Karnataka, like Dharwad, Ballary, Gulburga, Bidar, Gadag & Bijapur Districts, that's why out of 20 handloom clusters 8 Handloom clusters are located in the North Karnataka Districts.
- Donor Agencies play a vital role in the Cluster Development Programme (CDP), donor agency are the ultimate sanctioning authority of Clusters. All over India 12 Donor agencies are working, for different types of cluster a different donor agency will be there, for example to form a Handicraft Cluster, DC(Handicraft) will be the Donor agency. As per the specification, product and need of the cluster, the concerned donor agency provides assistance to the proposed cluster.
- Implementing agencies are most of the time from the concerned District place, it can be government institution or Non Government Organization (NGO) which gives support at the route level and gives assistance in forming clusters, they organize activity like trust building process, diagnostic study, market development & Preparation of Details Project Report (DPR).
- Technical agencies give technical assistance to the clusters, which may not be necessary for all the clusters, as per the need of the industry they provide training to the cluster member units (SME owners) and to the employees. The training can be on the job training or of the job training; it gives assistance in the marketing activity, technological up gradations, quality matters, and financial assistance to the clusters.

10 Conclusion:

The present study "*Cluster Development Programme – An Empirical Study of Karnataka*" gives an insight about the present status of Clusters in Karnataka and gives information with respect to product wise clusters units available at Karnataka, Karnataka has got all 5 types of clusters in it, they are Industrial Cluster (79), Handloom Clusters (156), Handicraft Clusters (20), Micro Enterprise Clusters (3) & Service clusters (3). There still enough opportunities for formation of clusters in Karnataka because only 5.8% of total SME units are party of one or others clusters, still around 94% of SME units are working independently. The review of literature clearly shows that "working together works" it means almost all the clusters are successful in their business operations, the perception of the SME owners has changed drastically, "earlier they use to compete with each other now they are co-operating

each other” few literatures shows that their overall performance have gone up because of formation of clusters, they are in group that’s why they got financial assistance from various financial institutions, they got technical assistance, they got training facility, more marketing opportunities, better quality of product with economies of scale, higher profit margin, higher turnover, improved work environment, exporting opportunities & assistance and more works in hand. Various financial and non financial institution plays a very important role, donor agency are specialized for certain industries and they gives complete support for the formation of clusters as per their need and demand, at district or Taluka level there are few implementing agencies which given assistance in the formation of cluster and one of the official form government will be the part of SPV, an NGO can also be act as an implementing agency, but representative of NGO can’t become the government SPV member. Though technical agency is not compulsory for all the clustering interventions, but few times it plays a very important role in the formation of clusters. Finally we can conclude that Karnataka has better number of clusters; still there are plenty of opportunities for the formation of cluster. The government should take measure for the development of the same.

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BIOGRAPHIES

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