Study on CFCs in Clusters in India Learning from Case studies and Way Forward

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Learning from Case studies and Way Forward[1]

1. Executive Summary

Common Facility Center (CFC) is a well-established phenomenon for promoting MSME clusters in India. A number of Ministries of the Government of India including the Ministry of MSME, Ministry of Textiles, Ministry of Food Processing Industries, Department for Promotion of Industry and Internal Trade, Ministry of Environment and Forest, Ministry of Rural Development, various State Governments as well as national and international organizations have been implementing schemes/programs for establishment of CFCs in India. It is estimated that over 1000 CFCs are either in operation or in various phases of development across the country. Around 600 of those are in operation for more than a year. This study tries to understand the factors that create sustainable CFCs based on studying a sample of 12 CFCs in sectors like bamboo, coir, gold, handloom, foundry, plastics, printing, etc.

Objective of this study is to understand (a) what are the best indicators for measuring success, (b) what are the factors that promote successful CFCs and (c) suggest further measures to promote successful CFCs. Based on the replies received we found that some of the factors that can explain the success of CFCs (explanatory 'x' variables) include nature of SPV registration, composition of leadership, nature of land ownership, contribution of SPV (without land), previous experience of SPV in its current or any other previous network form in doing joint activities and the purpose for which the CFC was created. Success of the CFC is best represented (explained 'Y' variables), among others, by, time taken for application approval, how fast the CFC started its operation (even before it was cully completed), capacity utilization of machine, benefit cost ratio, employment generated, user fees as percentage of total income, post completion machinery purchase, etc.

Assuming that all the 'x' variable together (an additive model) influences all the 'Y' variables together (additive model too) we find that correlation of 'Sum of X' and 'Sum of Y' is 0.83. We did a regression (although sample size is small) and found R^2 at 0.85 and adjusted R^2 at 0.67. Also, the explanatory 'x' variables which were found to be significant (p value < 0.1) are nature of land ownership and genesis of CFC. Higher the investment in land, higher is the chance of success. In the case where genesis of CFC if a threat, chances of success are highest. Interestingly past cooperation and nature of SPV (mostly defined by a scheme and is not the choice of the SPV) has no impact on the success of the CFC. Experience of soft intervention was found to have no reasonable impact on the success of the CFC and may not be an overriding criterion. However, presence of leaders from the principal firm, with substantial interest behind the success of the CFC matters.

Based on the same we feel that further promotion of CFCs may adopt the following policies:

- Schematic support for CFC should vary
- Schematic support may be highest if the need for the CFC is generated due to threat, followed by weakness and followed by strength/opportunity.
- It should be highest if the land is owned by SPV, followed by land on lease with SPV and followed

[1] This paper is authored by Dr Tamal Sarkar with the support of Mr Subhradeep Das. A number of other colleagues including Mr A S K Sharma, Ms Rupa Sengupta, Mr M V Rajkumar, Mr Yathish M E, Mr Kuldeep Kumar, Ms Rupa Sengupta supported in getting the base information of the clusters on which this paper is written. Mr Nikhil Mathur, Consultant to FMC did some of the initial visits. Suggestions received from colleagues including Mr Mukesh Gulati was also crucial. The views expressed are those of the authors and not necessarily that of the Foundation for MSME Clusters.

by land received free of cost by SPV

- Schematic support may be highest for pure CFCs and low for mixed cases
- Representation of the firms in the CFC may be maximized
- Presence of qualified mover may be given higher weightage

2. Backdrop

A common facility center (CFC) is an MSME (manufacturing &/or service provider) created in a cluster, which has joint ownership of several principal firms[2] (mostly MSMEs) from the cluster and at times also support units (from within or outside the cluster). It is created to serve the common needs of the principal firms of the cluster (or from outside the cluster). Creation of common facility center (CFC) is a well-recognized schematic approach of various Ministries of the Government of India as well as State Governments and National and International Organizations. CFCs are owned by a special purpose vehicle (SPV) registered as a Section 8 company/Producers Company/Cooperative society/Trust/Society, etc. CFCs are supported to the tune of 50 to 90 per cent depending on the Scheme for financing the cost of machinery and/or building.

In 2003, SICDP, now called MSECDP was promoted by the then Ministry of SSI and ARI (now Ministry of MSME). Ministry of MSME also floated the SFURTI Scheme of the Ministry of MSME. AHVY and various handloom cluster development schemes and infrastructure (textiles Park - SITP) Schemes was started by the Ministry of Textiles. Infrastructure including CFC schemes - IIUS and later MIIUS was started by DPIIT. Various other CFC schemes were also initiated by the Ministry of Ayush, Ministry of Food Processing Industries, Ministry of Environment and Forest and Ministry of Rural Development, etc. A number of State Governments have also started and are establishing CFCs under State and Union Government support too. These include State Governments of Uttar Pradesh, Odisha, Maharashtra, Rajasthan, Karnataka, West Bengal, etc. Also, premier national organizations like SIDBI, NABARD and international organizations like UNIDO, GIZ, World Bank, etc. have also created CFCs. It is estimated that these initiatives might have created/creating over 1000 CFCs across the country.

Table 1: CFCs Promoted Under Various Schemes

Schemes	Ongoing	Completed	Total	Sanctioned Amount (INR Crores)
MSE-CDP[3]	111	90	201	550[4]
SFURTI[5]	223	275	498	1171
SITP[6]	24	30	54	1926[7]
Mega Cluster Scheme - Handloom[8]	-	77	77	232[9]
IDPH Scheme[10]	-	71	71	33
MIIUS[11]	11	47	58	1799
Mega Cluster Scheme - Handicrafts[12]	-	12	12	16.53
	369	602	971	5727.53

[2] Principal firms are the firms which produce the product of the cluster.

[3] https://my.msme.gov.in/MyMsme/Reg/COM_ClusterForm.aspx

[4] Estimated sanction amount deduced as 60% of total sanction amount (INR 1100 cr) minus soft intervention amount (INR 50 cr @INR 25 lakhs per cluster)

[5] https://sfurti.msme.gov.in/SFURTI/Home.aspx

[6] https://www.texmin.nic.in/schemes/scheme-integrated-textile-parks

[7] Includes sanction amount for infrastructure development

[8] http://www.handicrafts.nic.in/pdf/Megaclusters.pdf

[9] Includes sanction amount for infrastructure development and other interventions

[10] http://www.handicrafts.nic.in/pdf/IDPH.pdf

[11] https://dpiit.gov.in/programmes-and-schemes/infrastructure/industrial-infrastructure-upgradation-scheme-iius

[12] http://handlooms.nic.in/

Source: Refer to footnote. Note all data sources are not of same vintage. Over 1465 clusters have also been promoted (1168 completed and 295 ongoing) under schematic support by DC Handlooms. However we do not have data regarding creation of CFCs there. (Source: Handloom Clusters - State wise details of handlooms clusters sanctioned under various schemes during 2006-07 to 2021-22) at handlooms.nic.in

3. Mechanics of Creation of CFC

The idea of CFC was generated based on the thought that firms often need various facilities which they cannot utilize all alone economically and yet if available the CFC can increase their productivity, value realization, quality upgradation, reduction in pollution, waste recycling, etc. However, it was often felt that creation of such CFCs (also known as “hard intervention”) with joint ownership of “traditionally competing” firms will require “trust building” which can be created through regular interactions among the likely collaborating firms through soft interventions like programs of training, exposure, skilling, market promotion, etc.

Accordingly, initially when SICDP started, substantial emphasis was given on soft interventions and although the support for CFC was explicit, it came over a period of 2 to 3 years, and not always in the action plan of first year. Over time the situation has got modified. The thought process is now providing high importance of only CFC or quick implementation of CFC in a cluster. This also is not an impossible and unwanted situation, but it warrants high degree of trust among the beneficiaries, in the absence of which CFCs can fail or become in effect ownership of one or few individuals who invest the requisite amount of investment as per the scheme requirement.

4. Need for a Study on CFCs

Anecdotal evidence available in house at FMC provides sufficient ground to hypothesize that;

4.1. Higher chances of promoting ready groups

Based on the design of public schemes, CFCs groups of MSMEs who have sufficient resources at hand to invest and requisite prior mutual trust among them may have higher chances of getting support for CFC. This may put a vast majority of such MSMEs where, building trust, creating community based democratic governance structures and garnering required capital resources from the members is likely to take time.

4.2. Identification of success factors

Of the around 1000 CFCs already set up or being set up, a substantive amount of public money has been invested that may range from Rs. 40. billion to Rs. 50 billion and more money is being channelized for such existing and new schemes. While input and output-based assessment is built into the financing mechanism of the CFCs, there is need to identify the factors that promote success/failure.

4.3. Spread of benefits among stakeholders

One of the cardinal principles based on which CFCs are sanctioned is that the services and consequential benefits of the CFCs must be accessible to stakeholders of the clusters beyond those who have invested into the setting up of such CFCs. There is need to understand the extent of this benefit and under what conditions the same happens.

5. Objective

It is but natural that the field study witnessed that while some of the CFCs are running successfully, others are partially successful and yet others are not successful as of now. These CFCs are being supported by a host of different schemes including MSECDP, SITP, SFURTI, Special Program, etc. Objective of this study is to understand what are the factors that promote successful CFCs. These lessons may pertain to conceptualization, design of CFCs, administrative processes for implementation and determinants of post CFC impact. Hence, this study will not to declare name of the CFCs and the corresponding scheme/program and instead highlight the learnings. This is more so as our visit for a day to a CFC gives a tangential understanding to the entire story of the CFC and hence our understandings can be partial too.

6. Methodology

6.1. Literature Survey

There is a complete absence of literature on CFCs. However various schemes on CFCs are available. Study of these schemes helped us to identify various parameters which can help in understanding success parameters and in creating the structure of the study.

6.2. Questionnaire

A questionnaire was prepared to do the study. It appears as Annex 1.

6.3. Selection of CFCs

Although, an estimated 1000 CFCs are in various phases of operation/development. It is guesstimated that the number of CFCs with more than 1 year of operation will be around 600. We covered only 2 per cent of these CFCs, i.e.,12 CFCs. These CFCs were supported by a mixture of schemes including MSECDP, SFURTI, SITP, IIUS, CHCDS and SDF.

6.4. Visit and Run the Questionnaire

We visited each CFC and had discussions with the creators, users and the employees (wherever possible). We also did follow up discussions and data collection via phone calls and repeat visits in some cases.

7. Brief Description of the CFCs

The analysis is based on the inputs received from 12 clusters. Names of the clusters have been kept anonymous. The common available data sets are as follows.

CFC 1: This is a handloom cluster from Central India. The cluster products include fabrics, sarees, dupattas, etc. The CFC is managed by an SPV – registered as a society, having 18 per cent representation of artisans in the management committee. It is a newly formed SPV. Land was received as a donation from the State Government. The stakeholders contributed less than 10 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as

well as creation of common facilities – an area of weakness. Approval for the CFC came the same year. It took five years to make the CFC operational. It started getting used after total completion of the CFC. It is estimated that 45 per cent of the machines in the CFC are operational. The CFC depends on FDR interest for meeting its expenses. Net income of the CFC is nil. There is negligible employment at the CFC. There is no user fee mechanism too. The SPV has not purchased or plans to purchase any machinery post the establishment of the CFC.

CFC 2: This is a wooden product cluster from South India. The cluster products include wooden sculptures, furniture, door and door frames, etc. The CFC is managed by an SPV – registered as a society, having 62.5% representation of artisans in the managing committee. The SPV is newly formed. The land has been leased. The stakeholders contributed 25 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as well as creation of common facilities – an area of weakness. Approval for the CFC came in two years. It took five years to make the CFC operational. It started getting used after total completion of the CFC. It is estimated that 50 per cent of the machines in the CFC are operational. As on FY 2021-22, the estimated net income is INR 0.74 million[13]. More than 30 workers are employed at the CFC. User fees contribute to 14 per cent of total income. The SPV has not purchased or plans to purchase any machinery post the establishment of the CFC.

CFC 3: This is a bamboo cluster from East India. The cluster products include bamboo basketry, utility products, furniture, etc. The CFC is managed by an SPV – registered as a producers' company, having 100 per cent representation of artisans in the Board. The SPV is newly formed. The land has been leased. The stakeholders contributed 18 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as well as creation of common facilities – an area of weakness. Approval for the CFC came in a year. The CFC is operational. It is estimated that 80 per cent of the machines in the CFC are operational. As on FY 2021-22, the estimated net income is INR 1.98 million[14]. 20 workers are employed at the CFC. There are no user fees, as it functions as a CPC. The SPV has not purchased or plans to purchase any machinery post the establishment of the CFC.

CFC 4: This is a coir cluster from South India. The cluster products include coir pith block and pith manure. The CFC is managed by an SPV – registered as a society, having 100 per cent representation of artisans. The SPV is newly formed. The land has been leased. The stakeholders contributed 23 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as well as creation of common facilities – an area of weakness. Approval for the CFC came in two years and became fully operational in another 2 years. The CFC was operational post full completion. It is estimated that 10 per cent of the machines in the CFC are operational. As on FY 2021-22, the estimated net income is INR 0.38 million[15]. 12 workers are employed at the CFC. There are no user fees, as it functions as a CPC. The SPV has purchased additional machinery post the establishment of the CFC.

CFC 5: This is a textile printing cluster from West India. The cluster products include fabric, soft

[13] Estimated as 10% of total turnover of INR 7.4 million as on FY 2021-22

[14] Estimated as 10% of total turnover of INR 19.8 million as on FY 2021-22

[15] Estimated as 10% of total turnover of INR 3.8 million as on FY 2021-22

furnishings, apparels, etc. The CFC is managed by an SPV – registered as a private limited company, having 80 per cent representation of principal firms in the Board. SPV has purchased the land for the CFC. The stakeholders contributed 64 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created to abide by the environmental guidelines of the government, a threat. Approval for the CFC came in the same year and became fully operational in another 5 years. The CFC was operational even before its full completion. It is estimated that 100 per cent of the machines in the CFC are operational. As on FY 2021-22, the reported net income is INR 7.8 million. 20 workers are employed at the CFC. User fees contribute 100 per cent of the total income. The SPV has purchased additional machinery post the establishment of the CFC.

CFC 6: This is a plastic goods cluster from East India, producing a variety of molded plastic products. The CFC is managed by an SPV – registered as a Section 25 company, having 100 per cent representation of firms in the Board. The SPV has purchased the land. The stakeholders contributed 50 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created to support production activities through CFC, a weakness. Approval for the CFC came in the two years and was completed in another 3 years. The CFC was operational even before its full completion. It is estimated that 100 per cent of the machines in the CFC are operational. As on FY 2021-22, the estimated net income is INR 0.36 million[16]. More than 20 workers are employed at the CFC. User fees contribute towards 100 per cent of total income. The SPV has purchased additional machinery post the establishment of the CFC.

CFC 7: This is a rice mill cluster from South India. The CFC was established to produce rice bran oil. The CFC is managed by an SPV – registered as a private limited company, having 100 per cent representation of unit owners in its Board. The land has been purchased by the SPV. The stakeholders contributed 10 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created for producing oil from the rice bran which was earlier disposed as waste– an area of opportunity. Approval for the CFC came in two years and became fully operational in 10 years. The CFC was operational post full completion. It is estimated that 50 per cent of the machines in the CFC are operational. As on FY 2020-21, the reported net income is INR 4.32 million. Around 30 workers are employed at the CFC. There are no user fees, as the members supply the raw material and the produce is sold by the SPV. The SPV has applied for additional machinery post the establishment of the CFC.

CFC 8: This is a fan manufacturing cluster from East India. The CFC is managed by an SPV – registered as a public limited company, having 100 per cent representation of unit owners. The land has been purchased by the SPV. The stakeholders contributed 11 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as well as creation of common facilities – an area of weakness. Approval for the CFC came in four years and became fully operational in another 2 years. The CFC was operational post full completion. It is estimated that 100 per cent of the machines in the CFC are operational. As on FY 2020-21, the estimated net income is INR 0.11 million[17]. Around 10 workers are employed at the CFC. User fees contribute to 100 percent of total income. The SPV has neither purchased or has plans for additional machinery post the establishment of the CFC.

[16] Estimated as 10% of total turnover of INR 3.6 million as on FY 2021-22

[17] Estimated as 10% of total turnover of INR 1.1 million as on FY 2020-21

CFC 9: This is a printing cluster from South India. The CFC was established to provide printing services to cluster units. The CFC is managed by an SPV – registered as a society, having 100 per cent representation of unit owners in its management committee. The land has been purchased by the SPV. The stakeholders contributed 10 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created to provide printing services to the existing cluster units– an area of weakness. Approval for the CFC came in two years and became fully operational in another 3 years. The CFC was operational post full completion. It is estimated that 100 per cent of the machines in the CFC are operational. As on FY 2021-22, the reported net income is INR 1.8 million. Around 60 workers are employed at the CFC. User fees contribute to 100 percent of total income. The SPV has purchased additional machinery post the establishment of the CFC.

CFC 10: This is a gold jewelry cluster from South India. The CFC is managed by an SPV – registered as a private limited, having 85% representation of unit owners in its Board. The land has been leased by the SPV. The stakeholders contributed 10 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as well as creation of common facilities – an area of weakness. Approval for the CFC came in three years and became fully operational in another 3 years. The CFC was operational post full completion. It is estimated that 62 per cent of the machines in the CFC are operational. As on FY 2020-21, the reported net income is INR 2.98 million. Around 35 workers are employed at the CFC. User fees contribute to 100 percent of total income. The SPV has purchased additional machinery post the establishment of the CFC.

CFC 11: This is a bamboo cluster from South-West India. The cluster products include bamboo basketry, utility products, furniture, etc. The CFC is managed by an SPV – registered as a producer's company, having 100% representation of unit owners. The land has been leased by the SPV. The stakeholders contributed 15 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created both from the perspective of enhancing production of products being made in the cluster, an area of strength as well as creation of common facilities – an area of weakness. Approval for the CFC came in one year and became fully operational in another 3 years. The CFC was operational post full completion. It is estimated that 100 per cent of the machines in the CFC are operational. As on FY 2020-21, the CFC has reported a loss of INR 35000. Around 30 workers are employed at the CFC. There are no user fees as it functions as a CPC. The SPV has neither purchased nor planned to purchase any additional machinery post the establishment of the CFC.

CFC 12: This is a foundry cluster from South India. The CFC is managed by an SPV – registered as a society, having 100% representation of unit owners. The land is owned by the SPV. The stakeholders contributed 15 per cent of the total project cost (barring land cost), the rest being schematic subsidy. The CFC was created for the purpose of sand reclamation – an area of weakness. Approval for the CFC came in one year and became fully operational in another 2 years. The CFC was operational post full completion. It is estimated that 60 per cent of the machines in the CFC are operational. As on FY 2020-21, the estimated net income is INR 3 million[18]. Around 40 workers are employed at the CFC. User fees contribute to 100% of total income. The SPV has neither purchased nor planned to purchase any additional machinery post the establishment of the CFC.

[18] Estimated as 10 percent of reported turnover of INR 30 million as on FY 2020-21

8. Analysis of Data and Way Forward

Based on literature review and discussion with experts we identified the following variables:

8.1. Explanatory or 'x' Variables

Selection of variables is mostly a function of the questionnaire and the nature of replies received. In some cases the replies were ambiguous and needed too much probe, beyond the scope of the exercise and could not be accommodated in this analysis. Weightage (maximum score) of a variable has a subjective logic. However the values have been made dis-proportional, in order to give relatively higher weightage (maximum score) to more important status of a variable for making a successful CFC.

8.1.1 Nature of SPV registration

It is said that more corporate oriented the SPV, higher will be its capacity to make the CFC a success. We have divided the SPVs into 3 types based on increasing degree of business orientation and gave higher marks to more business-oriented type of registration it has. Thus trust/society has score of 2, not for profit companies has score 4 and for profits were given score of 10. Accordingly the weightage of this parameter was fixed at 10.

8.1.2 Composition of Leadership

A fundamental teaching in CDP is that joint action takes place successfully if and only if, among others the principal firms going for that joint action are more or less of equal strength. Theory says that in the absence of the same, diverse groups with diverse interests will delay the process of common activities. We identified diverseness of relationship among the lead responsibility (e.g. Board of Directors/Trustees/Committee Members) in the form of percentage of presence of majority type of principal firm in the leadership structure. We gave this parameter a weight of 10. The actual score is percentage value of 10.

8.1.3 Nature of Land Ownership

It was felt that if an SPV buys land then its chance of success increases as land is not sponsored and an SPV will only spend huge amount in land if it is sure of success. The next best, but poor alternative is to get the land on lease and the worst option is when the land is donated to the SPV. It was thus given higher score of 25 in case of land purchased. But for land leased the score assigned is 10 and that for land donated the score is 5. Thus the weight for this category is 25.

8.1.4 Contribution of SPV (without land)

Contribution of SPV without land cost is also a significant parameter to gauge the interest of the SPV in the Project. However it is a function of a schematic guideline, which fixes the same a priori. So it has been given a relatively lower weightage of 10. The actual score is percentage value of 10.

8.1.5 Previous experience of joint activity

This required a more detailed analysis. On the face of it all SPVs have done joint activities a priori as it is a common ask for most of the schemes – SFURTI and initial versions of MSECDP. So it is not clear as to whether these were done prior to the formation of the CFC or were a natural schematic outcome. One option for the same is to understand whether the SPV existed prior to taking schematic support. Accordingly we have identified those SPVs who in their current or in any previous form had the experience of joint activities and assigning them a score of 15. For SPVs created fresh (no previous experience of cooperation structure previously) assigned score is 5. Weightage of this category is 15.

8.1.6 What led to the idea of creation of the CFC

This is a variable and can be traced back to its SWOT. No single case of CFC was found where it was created because of an opportunity. It may be so because opportunities are generally short lived and quickly becomes a market phenomenon, with each individual unit trying it out. Almost similarly, strengthening position of strength is more of a market phenomenon which individual units are capable of. However, weakness and threats are issues that make the units more vulnerable. This is more so for threats as those are generally non-business phenomenon (mostly regulatory) and do not have off the shelf suggestions or have any viable business solutions at a firm level. Thus highest score has been given to situations of definite threats – score of 30, followed by weakness only, mostly pure CFCs – score of 15 and strength or opportunity – score of 5. However, at times, for some artisanal cluster having diverse range of stakeholders – poverty-stricken artisans as well as rich master artisans, it evolves through a mix of areas of strength (doing certain activities centrally) as well as doing some activities as a facility arising from weakness. In such cases of strength and weakness, we have given a score of 10. Total weight for this category is 30.

Table 2: Scoring Pattern of 'x' Variables

X-Variables	Max Score 100	
Parameter	**Scale**	**Score**
Nature of SPV	Society/Trust	2
	Section 8/25 Company	4
	Pvt Ltd/Producer's Company/ Co-operative Society	10
Composition of Leadership (Board/Trustee/Committee)	Unit Owners/Artisans/Farmers = 100%	10
	<100% to be scored as per scale	
Nature of Land Ownership	Purchased	25
	Leased	10
	Donated	5
Contribution of SPV (without land) and normalised	100%	10
	<100% to be scored as per scale	
	Normalised	
Experience of formal cooperation prior to SPV creation	Exists	15
	Does not exist	5
Genesis of CFC	Strength or opportunity	5
	Strength and Weakness	10
	Weakness	15
	Threat	30

Accordingly values of the 'x' variables for the clusters is as follows:

Table 3: Scores of 'x' Variables of the CFCs

	'x' variables	W	C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
X1	Nature of SPV	10	2.0	2.0	10.0	2.0	10.0	4.0	10.0	10.0	2.0	10.0	10.0	2.0
X2	Composition of Board	10	1.8	6.3	10.0	10.0	8.0	10.0	10.0	10.0	10.0	8.5	10.0	10.0
X3	Nature of Land Ownership	25	2.5	10.0	10.0	10.0	25.0	25.0	25.0	2.5	25.0	10.0	10.0	25.0
X4	Contribution of SPV (without land)	10	1.2	3.9	2.8	3.6	10.0	7.8	1.6	1.7	1.6	1.6	2.3	2.3
X5	Genesis of CFC	30	10.0	10.0	10.0	10.0	30.0	15.0	5.0	15.0	15.0	30.0	10.0	15.0
X6	Done Joint Activities a priori	15	15.0	15.0	5.0	5.0	15.0	15.0	15.0	15.0	5.0	15.0	5.0	15.0
	Total 'x'		32.5	47.2	47.8	40.6	98.0	76.8	66.6	54.2	58.6	75.1	47.3	64.3

Note: Total value of X does not necessarily imply superiority of one CFC over the other

8.2. Explained 'Y' Variables

The above 'x' variables are expected to have an impact in some functional form on the following explained or 'Y' variables.

8.2.1 Time taken for Application Approval

It is expected that, more the need and SPV investment intensive oriented a CFC, time taken for approval of CFC application will come down with the continuous involvement and persuasion of the SPV. Absence of this initiative may delay the process of return, but it will not be able to influence the expected result and hence given a maximum score (weightage) of 5 per cent among the outcome variables. Different scores have been attached for different time taken for project approval.

8.2.2 Time taken for Complete Handover to SPV

Same as above

8.2.3 Complete/Partial Handover for operation to start

Real needs will make the CFC operational, even before it is formally handed over, which sometimes take time. Hence the score of this item is assigned at 10 wherever it was handed over for operation even when partially ready or else nil.

8.2.4 Capacity utilization of machine

This is expected to be high if the CFC was appropriately thought of, which in most cases, will be a function of real needs. It is one of the key factors of success. Hence it has been given a maximum score of 25. The score for each cluster is per cent of 25 based on estimated utilization percent of all machine taken as a whole.

8.2.5 Benefit Cost Ratio

This needs to make business sense – higher the better. However the percentage of investment is a function of the scheme guidelines and is somewhat a priori. Hence, we have given it a weight of 10 only. It has also taken care of number of beneficiaries to some extent. OB-SPV is calculated as follows:

$$BCR = \frac{\text{Net income in a year (latest data available)}}{\text{Bank rate of interest of investment by SPV}} \times 100 \times \frac{\text{Weight (10)}}{100}$$

8.2.6 Employment in CFC

This figure was normalized for all the CFCs taken together to give a maximum score of 10 for the one having highest number of employees and the rest being per cent of the number of the highest employee CFC calculated for the maximum score of 10.

8.2.7 Post completion machinery purchase

While few CFCs were not able to utilize their machinery, yet others went on to buy at the sole cost of the SPV, new machineries. Some CFCs were also seriously planning to buy machinery too. This parameter shows the real buoyancy of the CFC in terms of success. Accordingly, we gave a maximum score of 20 of those who bought and 10 to those who have serious (as understood, based on discussion) plans for the same.

8.2.8 User fees

Success of CFC is meant in terms of its usage. Here we calculated the percentage of user fees in the total income of the CFC and gave it a weight of 15. Score is percent of 15.

Table 4: Scoring Pattern of 'Y' Variables

Y-Variables	Max Score - 100	
Parameter	**Scale**	**Score**
Time taken for Application Approval	4 years and above	1
	2-4 years	3
	1 year or less	5
Time taken for Complete Handover to SPV	5 years and above	1
	3-4 years	3
	1-2 years	5
Complete/Partial Handover for operation to start	If Partial	10
Capacity utilisation of machine normalised	100%	25
	<100% to be scored as per scale	
Opportunity Cost normalised	Ratio of likely bank interest on investment used for asset purchase and net income normalised	10
Post completion machinery purchase	Yes	20
	If there is a plan	10
User Fees normalised	100%	15
	<100% to be scored as per scale	
Number of people working in CFC normalised	Percentile to be multiplied by 10	10

Accordingly values of the 'Y' variables for the clusters is as follows:

Table 5: Scores of 'Y' Variables of the CFCs

			C1	C2	C3	C4	C5	C6	C7	C8	C9	C10	C11	C12
Y1	Time for Application Approval	5	5.00	3.00	5.00	3.00	5.00	3.00	3.00	1.00	3.00	1.00	5.00	5.00
Y2	Time for Complete Handover to SPV	5	1.00	3.00	1.00	5.00	1.00	3.00	1.00	5.00	3.00	3.00	3.00	5.00
Y3	Complete/Partial Handover for operation to start	10	0.00	0.00	10.00	0.00	10.00	10.00	0.00	0.00	0.00	0.00	0.00	0.00
Y4	Capacity utilisation of machine	25	11.25	12.50	20.00	2.50	25.00	25.00	12.50	25.00	25.00	15.50	25.00	15.00
Y5	BCR	10	0.00	2.35	1.76	1.26	1.88	0.69	6.81	0.42	0.92	9.91	-0.15	0.96
Y6	Employment in CFC	10	0.00	6.92	3.08	2.31	3.85	4.62	5.38	1.54	10.00	7.69	6.15	9.23
Y7	Post completion machinery purchase	20	0.00	0.00	0.00	20.00	20.00	20.00	10.00	0.00	20.00	20.00	0.00	0.00
Y8	User Fees	15	0.00	1.40	0.00	0.00	10.00	10.00	0.00	10.00	10.00	10.00	0.00	10.00
	Total		17.25	29.17	40.84	34.07	76.73	76.31	38.70	42.96	71.92	67.10	39.00	45.19

Note: Total value of Y does not necessarily imply superiority of one CFC over the other

To start with let us assume that all the X variable together (an additive model) influences the Y variables together (additive model too). We find that correlation of 'Sum of X' and 'Sum of Y' is 0.83. We then tried to see what happens if we remove each unique variable from the 'Sum of X' and 'Sum of Y' and find the following.

Table 6: Correlation Coefficient in the Absence of a Typical X or Y Variable

X	Correlation	Y	Correlation
X1	0.83	Y1	0.82
X2	0.80	Y2	0.84
X3	0.69	Y3	0.79
X4	0.82	Y4	0.80
X5	0.70	Y5	0.79
X6	0.89	Y6	0.82
		Y7	0.78
		Y8	0.80

(Overall Correlation of Sum of X with Sum of Y = 0.83)

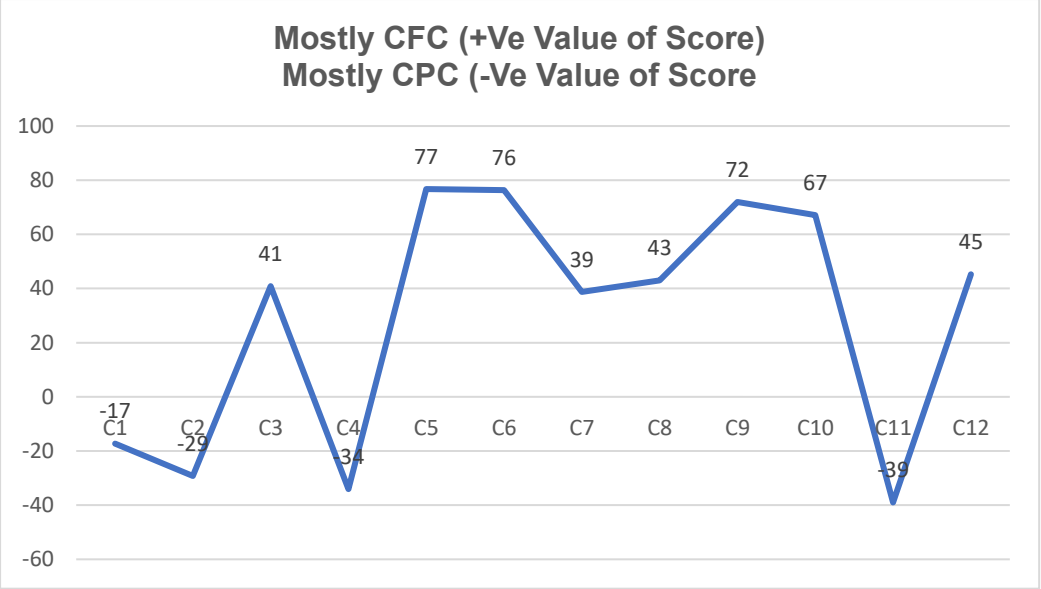
This shows that absence of X3 (nature of land ownership) and X5 (genesis of CFC) has relatively high influence on the 'Sum of Y'. Importance of other X variables X2 (composition of leadership at 0.80) and X4 (contribution of SPV without land at 0.82) are marginal, although, composition of leadership has some impact. Interestingly, absence of X1 (nature of SPV) and X6 (prior experience of joint action) actually gives same and better correlation of 0.83 and 0.89 respectively and if both are jointly omitted the correlation becomes 0.89. Absence of variables in Y are not so influential, barring Y7 (post completion machinery purchase) at 0.78 and Y5 (opportunity cost) at 0.79 and also eagerness to start – handover after partial completion at 0.79. Absence of the other variables has correlation varying between 080 to 0.82 and is lowest at 0.80 each for handing over for operation before complete handover and opportunity cost.

We did a regression (although sample size is small) and found R^2 at 0.85 and adjusted R^2 at 0.67. Also, the variables which were found to be significant (p value < 0.1) are X3 (Nature of land ownership/source) and X5 (Genesis of CFC) with coefficients of 0.83 and 1.60.

It is evident that interest of the firms is highest when they invest heavily. Schemes do not invest in land and since land price is steep, higher the investment in land, higher is the chance of success as business units will neither invest heavily with lesser chance of success. Similarly genesis of CFC if a threat, chances of success are highest as generally no individual unit is capable of solving threat, many a times, solution of that are not available readily and needs heavy investment. Correlation is marginally low in the absence of the X carriable Opportunity Cost which may be because of its static nature as defined by a scheme. Interestingly past cooperation and nature of SPV (mostly defined by a scheme and is not the choice of the SPV) has no impact on the success of the CFC. Possibly, if there is a real need, these do not matter.

To understand the success of a scheme one can look at number of variables. However it was very difficult to understand the buoyancy of success as exact data be it opportunity cost or capacity utilization or user fees as percentage of total revenue or employment, availability was a challenge, given the nature of this methodology. This analysis was thus mostly based on approximate data revealed as part of discussion and not authenticated audited data. But as in business, capacity expansion or willingness for capacity expansion is a significant variable. It is only in this case, where absence of the variable from the list of explained variables reduced the correlation most and significantly (by 10 per cent). Also eagerness of the SPV to start the CFC is somewhat significant. This has been mapped crudely by the eagerness to start the CFC even when it is not fully completed or handed over.

Experience of soft intervention was found to have no reasonable impact on the success of the CFC and may not be an overriding criterion. However, presence of leaders from the principal firm, with substantial interest behind the success of the CFC matters. A true CFC will earn from user fees only. There are But in many of the cases, the CFCs are also producing the products that at least some of the firms of the cluster are also producing. These are more like common production centers (CPCs). They sometimes have facilities, but either those are not getting used or they do not have those. This has been plotted by taking the positive value of the total Y score for those which are mostly or fully CFCs and negative value of the total Y score for fully or mostly CPCs. Average Y score of CFCs is 57 and is that for CPCs is 30.



8.3. Way Forward

- Schematic support for CFC should vary
- Schematic support may be highest if the need for the CFC is generated due to threat, followed by weakness and followed by strength/opportunity.
- It should be highest if the land is owned by SPV, followed by land on lease with SPV and followed by land received free of cost by SPV
- Schematic support may be highest for pure CFCs and low for mixed cases
- Representation of the firms may be maximized
- Presence of qualified mover may be given due weightage

9. Annex 1

The Foundation for MSME Clusters (FMC) has initiated a Study on “Best Practices for Promoting Common Facility Centres in MSME Clusters”. Accordingly, we propose to visit some CFCs across the country and understand the strategies adopted by different stakeholders of the cluster for its growth, usage and sustainability.

This Study will culminate into a policy paper which will be widely circulated amongst government and non-government stakeholders. A checklist of questions/data points for exploration with the CFC stakeholders is attached for your ready reference.

Checklist/Questionnaire for CFC Policy Research

1. **Cluster Status as on today (Reports/Interviews)**

- How old?
- Turnover, number of beneficiaries/enterprises, workers, types of enterprises
- Geographical spread
- Products/services of the cluster
- Is the cluster growing?

2. **Before Implementation of CFC (DPR/Interviews)**

- What was the profile of the core beneficiaries of the project?
- Were the beneficiaries organized, registered or otherwise? If yes, explain
- Did the beneficiaries carry out any collective activities? If yes, which activities? What were the modalities? Who supported? Hard vs soft?
- Which organization/individuals took the responsibility of executing the project? Who received the money under the scheme/program? What was the background and experience of this organization/individual?

3. **Intervention Plan (DPR/Interviews with cluster stakeholders)**

- Name of scheme/program under which the CFC was supported
- CFC Ownership and Board of Directors
- Previous experience of Board in similar operations
- Other interventions including both hard and soft, supported by the project or through convergence with other GO/NGO schemes or programs
- Roles of different agencies, including SPV
- Vision and Business Plan of the CFC
- Marketing Plans of CFC
- Manpower plans of CFC

4. **Actual Interventions (Completion reports/Observation/Interviews)**

- Year of application
- Year of approval
- Approved amount
- Date of functionalization/completion

- Number of units/beneficiaries (size wise) actively engaged with the CFC
- Implementation of HR plan and challenges if any
- Implementation of marketing plan and challenges if any
- Working capital challenges if any
- Any delay in functionalization at any stage, if any? Say in approval/fund release/land/electricity/ SPV formation/Beneficiary contribution/others (please specify)
- Size of CFC building – optimum/small/large
- Whether land owned or leased
- Whether building owned or leased
- Processes planned for the CFC, together with machines
- Other interventions including both hard and soft, supported by the scheme/project or through convergence with other GO/NGO schemes or programs
- Whether any technical person/organization guided/facilitated the interventions from within/outside?

5. Outcomes of the CFC/Project (Reports / Interviews)

- Key achievements of the project – number of beneficiaries/assets/profits/income/turnover of beneficiaries/technology upgradation/organization of artisans and cluster
- Incidents of successes and failures with reasons