Draft Detailed Project Report

Gurugram Apparel Manufacturing Cluster

Submitted to,

Department of Industries and Commerce

Government of Haryana

(for assistance under State Mini Cluster Development Scheme)

Report No. XXXXXX

February 2018

Prepared by,

Ernst & Young LLP

Under the project: MSME Ecosystem Transformation in Haryana

21 February 2018

Director
Department of Industries & Commerce,
Government of Haryana
1st Floor, 30 Bays Building,
Sector 17, Chandigarh

Dear Sir/Madam,

As part of our engagement for providing consulting services for 'MSME Ecosystem Transformation in the State of Haryana', we hereby submit the Draft Detailed Project Report (DPR) for setting up of **Center for digital printing** as common facility centre for Gurugram apparel manufacturing cluster under the SPV name **Wishcoin Digitex Private Limited** for your kind perusal. The deliverable has been prepared in accordance with our engagement agreement with Directorate of Industries, Govt. of Haryana dated 03 January 2017, and our procedures were limited to those described in that agreement.

This Detailed Project Report is based on studies of and discussions with:

- Directorate of Industries, Govt. of Haryana
- DIC Gurugram
- Textile and garment units located in Gurugram
- Industry experts
- Secondary research

Our work has been limited in scope and time and we stress that more detailed procedures may reveal other issues not captured here. The procedures summarized in our Detailed Project Report (DPR) do not constitute an audit, a review or other form of assurance in accordance with any generally accepted auditing, review or other assurance standards, and accordingly we do not express any form of assurance. This Draft Detailed Project Report is intended solely for the information and use of the Office of Director Industries-Haryana and is not intended to be used by anyone other than specified party.

We appreciate the cooperation and assistance provided to us during the preparation of this report. If you have any questions, please contact the undersigned.

Sincerely,

Amar Shankar, Partner – Advisory Services

Disclaimer

This Draft Detailed Project Report for development of Center for digital printing- NextGen Digitex LLP as common facility centre for Gurugram apparel manufacturing cluster has been prepared by Ernst & Young LLP (hereinafter referred to as 'EY' or 'Ernst & Young' or 'Us') and delivered to the 'Office of Director of Industries & Commerce – Government of Haryana (O/o of DI-HR)' (hereinafter referred to as 'the Client').

The inferences and analyses made by EY in this report are based on information collated through primary research, secondary research, discussions with the client personnel and key stakeholders and our knowledge about the state mini cluster development scheme and its objectives. EY has taken due care to validate the authenticity and correctness of the information from various sources, however, no representations or warranty, expressed or implied, is given by EY or any of its respective partners, officers, employees or agents as to the accuracy or completeness of the information, data or opinions provided to EY by third parties or secondary sources.

Nothing contained herein, to the contrary and in no event shall EY be liable for any loss of profit or revenues and any direct, incidental or consequential damages incurred by the Client or any other user of this report.

In case the report is to be made available or disclosed to any third party, this disclaimer along with all the limiting factors must be issued to the concerned party. The fact that EY assumes no liability whatsoever, if for the reason any party is led to incur any loss for acting upon this report, must be brought to the notice of the concerned party.

Acknowledgement

We would like to express our sincere gratitude to Department of Industries & Commerce - Haryana and its officials for their involvement and valuable inputs during the preparation of this DSR. We are thankful to **Mr. Sudhir Rajpal**, IAS, Principal Secretary, Industries & Commerce and **Mr. Ashok Sangwan**, IAS, Director Industries & Commerce, Government of Haryana for sharing their insights about the 'Enterprises Promotion Policy 2015' and their vision about the Mini Cluster Scheme. Special thanks to **Mr R.C Dahra, Consultant (Clusters), Department of Industries and Commerce and Mr Bhagmal Takshak, Joint Director, DIC Gurugram** for their proactive support and guidance to the team during the entire process.

We would like to convey our sincere thanks to members of Gurugram Chamber of Commerce and Industry for their assistance in facilitating stakeholder discussions. Further, we would also like to thank officials of **DIC, Gurugram** for providing support and information related to textiles and apparels manufacturing in Gurugram.

Also, we must extend our sincere thanks to garments and apparel manufacturing MSME entrepreneurs and other key stakeholders who gave us their valuable time and insights with respect to various dimensions of the industry and its support requirements. Without their help, capturing the industry insights would not have been possible.

Abbreviations

AEMA	Apparel Exporters & Manufacturers Association
AEPC	Apparel Export Promotion Council
ATDC	Apparel Training & Design Centre
BDS	Business Development Services
CAGR	Compound Annual Growth Rate
CFC	Common Facility Centre
DIC	District Industries Centre
DSR	Diagnostic Study Report
EU	European Union
GDP	Gross Domestic Product
GSDP	Gross State Domestic Product
HFC	Haryana Financial Corporation
HSIIDC	Haryana State Infrastructure & Industrial Development Corporation
HUDA	Haryana Urban Development Authority
IAM	Institute of Apparel Management
IAMSME	Integrated Association of Micro, Small & Medium Enterprises
IDBI	Industrial Development Bank of India
MSME	Micro, Small and Medium Enterprises
MSME-DI	MSME – Development Institute
NCR	National Capital Region
NIFT	National Institute of Fashion Technology
NITRA	North India Textile Research Association
NSIC	National Small Industries Corporation
SBI	State Bank of India
SIDBI	Small Industries Development Bank of India
SWOT	Strength, Weaknesses, Opportunities and Threats
TIT&S	The Technological Institute of Textile & Science
UAM	Udyog Aadhar Memorandum
USA	United States of America

Table of contents

List of Figures

List of Tables

Executive Summary

Executive summary

The Government of Haryana through the Department of Industries and Commerce intends to transform the MSME sector of the state and put it on growth path. Several incentives have been offered under the state's ambitious 'Enterprise Promotion Policy (EPP) 2015' to provide an impetus to growth of the MSME sector. Towards this, the state aims to strengthen the technology infrastructure as well as enhance productivity and competitiveness of various MSME clusters across the state by leveraging funding under the State Mini Cluster Development Scheme providing grant under its Haryana EPP 2015.

In this context, this Detailed Project Report (DPR) has been prepared to seek grant-in-aid assistance under the State Mini Cluster Development Scheme to set up a centre for digital printing for Gurugram apparel manufacturing cluster through an SPV under the name and style of NextGen Digitex LLP.

About the Gurugram Apparel Manufacturing Cluster

There are about 650 apparel manufacturing units in Gurugram district with 450 units as MSEs. Of these, 11 units willing to join hands to form a Special Purpose Vehicle (SPV) to set up a Common Facility Centre (CFC) to address common infrastructure related gap of the cluster i.e. absence of digital printing. It forms an integral component of apparel manufacturing which in turn manifests into production related delays and cost overheads (owing to out-sourcing).

The annual turnover of the cluster (micro and small units) is about INR 1200 crores. The cluster units are engaged in garment manufacturing, including knitting, cutting, stitching, washing, finishing, packing, etc. Most units manufacture for other brands, while some also manufacture under their own brands in addition to manufacturing garments for other brands. They manufacture digitally printed apparels, both direct to fabric and direct to garment, which has high demand.

Several micro and small level entrepreneurs face challenges in getting the fabrics (and garments) digitally printed due to lack of in-house digital printing facilities within MSEs which manifests into high costs, production delays and possible loss of market share.

Diagnostic Study and Interventions

A diagnostic study was undertaken by the cluster members in October 2017 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. It was observed that most units require digital printing facilities, as they were currently availing these services from external service providers at high prices or with production delays.This resulted in a negative impact on their cost competitiveness as well as production delays. In this context, the units decided to establish a CFC.

A DSR validation meeting was conducted with SPV and cluster members on 01st December. The DSR was approved by the Director of Industries & Commerce on 20thDecember 2017 and the SPV was granted permission to go ahead with preparation of Detailed Project Report (DPR) for the cluster. The letter has been added as Annexure1.

Proposed Common Facility Centre

The proposed CFC will facilitate:

- **Digital Printing Facility**

A common digital printing facility will both supplement and complement the activities of firms in the cluster, and there is no similar facility available in the district for use by MSEs at competitive prices. The proposed common facilities will be utilized by the SPV members and will also be available to non-members units within and outside the cluster. The facility will provide a much needed technology and infrastructure push to the cluster units and enable them to become more competitive.

Special Purpose Vehicle for Project Implementation

After the diagnostic study, the cluster units came together to form a **Special Purpose Vehicle (SPV) by the name and style of 'NextGen Digitex LLP'**.The SPV has been set up as a limited liability partnership (LLP) under Limited Liability Partnership Act 2008. DIC, Gurugram and MSME-DI have played an important role in SPV formation by cluster stakeholders. The SPV was incorporated in 2018, and includes 11 members who are making the capital contribution of the LLP. The proposed CFC will be implemented on public-private partnership basis through the SPV -**NextGen Digitex LLP** by availing support from Government of Haryana (under Haryana EPP 2015).

The SPV members have a track record of cooperative initiatives. SPV members are also members of prominent cluster associations. Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in the garment industry and enhancing productivity of their units. This includes exposure visits to fairs and sharing of best practices, registration under UAM, awareness programs on new trends in garment manufacturing, entrepreneurship development, IPR, energy efficiency, GST, barcoding, equity schemes, SME IPO process, sustainability, etc. These programs were conducted in collaboration with DIC, State Government, IAMSME of India, etc.

Project Parameters, Viability and Sustainability

The Gurugram Apparel Manufacturing Cluster with support from State Government is planning to set up a common facility centre under the SPV-**NextGen Digitex LLP** having state-of-the-art digital printing facilities to undertake job work of cluster units with a total project cost of about **Rs. 239.68 lakhs**. The SPV members have proposed to contribute 25% of the total project cost. The total contribution of SPV members will amount to Rs. 59.68 lakhs. Support from State Government is envisaged for Rs. 180 lakhs (90% of project cost up to Rs. 200 lakhs).

The cost of the project and proposed means of finance is tabulated below:

PROJECT COST (Rs in Lakh)				
S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
1	**Land & Building**			
	a. Land Value	0.00		
	b. Land Development	0.00	0.00	Eligible (Max 25% of project cost)
	c. Building & Other Civil Works	0.00		
	d. Building Value	0.00		
	Sub Total (A)	**0.00**	**0.00**	
2	**Plant & Machinery**			
	a. Indigenous	18.38		
	b. Imports	169.85	200.00	Eligible
	c. Secondary Machines	13.95		
	Sub Total (B)	**202.18**	**200.00**	
3	**Miscellaneous fixed assets (C)**	**2.80**	**0.00**	Not eligible for grant
4	**Preliminary & Preoperative Expenses (D)**	**9.07**	**0.00**	
5	**Contingency**			
	a. Building @ 2%	0.00	0.00	
	b. Plant & Machinery @ 5%	10.17	0.00	
	Sub Total (E)	**10.17**	**0.00**	
6	**Margin money for working capital** (Working capital required @ 75% C.U.)	15.46	0.00	
	Sub Total (F)	**15.46**	**0.00**	
	Grand Total (A+B+C+D+E+F)	**239.68**	**200.00**	

DETAILED MEANS OF FINANCE						
S. No.	Source of finance	Project cost up to Rs. 200 lakh		Project cost over Rs. 200 lakh		
		% Contribution	Amount (Rs. in lakh)	% Contribution	Amount (Rs. in lakh)	Total Amount (Rs. in lakh)
1	Grant-in-aid under State Mini Cluster Development Scheme (max 90% (including soft intervention)	90%	180.00	0%	0.00	180.00
2	Contribution of SPV	10%	20.00	100%	39.68	59.68

	Total	100%	200.00	100%	39.68	239.68

The viability and sustainability of the project is evident from the project economics as well as the cooperative spirit and profile of the SPV. Some indicators of the viability are as follows:

Project's financial indicators

SENSTIVITY ANALYSIS					
S. No.	Particulars	Base case	With 5% decline in user charge	With 10% decline in user charge	With 15% decline in user charge
1	BEP (cash BEP at operating capacity of 75%)	55.60%	61.26%	68.20%	76.90%
2	Internal Rate of Return (IRR)	27.97%	24.52%	20.84%	16.86%
3	Av. ROCE (PAT/CE)	37.56%	32.70%	27.73%	22.65%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) GoH	221.79	172.64	123.49	74.34

As evident from the financials above, with viability gap funding under State Mini Cluster Development Scheme of GoH, the project is highly viable and sustainable. Risk and sensitivity analysis considering a decline in user charge/ capacity utilization also validates the project sustainability.

Project Implementation

Project implementation is envisaged to involve a time-frame of about 7 months upon receipt of final approval of grant-in-aid assistance from the Government of Haryana under State Mini Cluster Development Scheme. The project will be implemented by the SPV in close association with DIC, Gurugram and the State government. It is proposed to constitute a Cluster Development Coordination Committee (CDCC), constituted under the Chairmanship of Director of Industries, Government of Haryana to oversee all cluster development projects in Haryana under State Mini Cluster Development Scheme. The committee may operate under the overall monitoring of the State Level Steering Committee (SLSC).

In addition, for implementing this CFC project, a Project Management Committee (PMC) comprising of the GM, DIC Gurugram, and representatives of the SPV, nodal bank, and EY experts shall be constituted to directly oversee effective monitoring and implementation. The project will be implemented through the SPV, and the PMC will report progress of implementation to the CDCC as well as State Level Steering Committee and DIC, Gurugram. The potential for the Gurugram apparel manufacturing cluster to grow is

enormous, owing to the growing market demand for garments in India and globally. The strengths of the Gurugram apparel manufacturing cluster lie in its location (both geographically & industrially), with large textile industry which provides the key raw material for garments, and its proximity to Delhi which is a key supply hub. Cluster units are unable to effectively cater to the domestic and international markets as they are lacking price competitiveness and efficiency due to lack of digital printing facilities on a variety of fabrics such as cotton and viscose.

This cluster has the ability to increase its output and market share by manufacturing price competitive products. The proposed facility will be open to all cluster firms to enable them to get job work done in order to cater to the digital printing requirements of the market. The facility will also provide an opportunity to MSE units to increase their capacity utilization and profitability. The facility will provide a major technological push to the units reeling under high competition. The CFC will also enhance the co-operation and joint action among cluster stakeholders to improve their competitiveness to meet the demands of the domestic as well as international markets.

Introduction

1. Introduction

1.1 Overview of the Cluster

There are about 650 apparels based units in Gurugram district, Haryana, involved in end-end garment manufacturing, fabric manufacturing, dyeing, printing, embroidery and finishing across the knitwear and woven category; catering to both domestic and international markets. Out of the total 650 units, more than 450 units are in the micro and small category, which is sizeable at 70%. The annual turnover of the MSE units is about INR 1200 crores with close to 50% of turnover realized by the micro and small units alone. The cluster generates employment for approx. 60,000 persons. Around 70% of total apparels manufactured are being exported internationally to USA, Canada, Europe and Japan, catering to major global brands such as Walmart, Mango, Mustard Pie etc.

With changing trends and consumer preferences, apparel manufacturing is driven towards high design orientation to enhance the product's attractiveness with higher number of units shifting towards products requiring garment printing and embroidery. In the Gurugram cluster, close to 80 units are exclusively engaged in garment printing across the sublimation, digital and screen printing category. Some of these are Orient Craft, Richa Global, Gaurav International, Satya Paul (garment manufacturing units); which cater to the outsourcing requirements for smaller apparel manufacturing units of the cluster in addition to printing units in Delhi, NCR, Panjab, Rajasthan and Gujarat. The micro and small units in the cluster lack required technology for digital printing, which is most in vogue as few micro and small garment manufacturing units have a traditional printing set-up within their factory premise. As a result of this, they have to outsource the digital printing services to private players situated both within Gurugram and outside (as mentioned above) who are charging significantly high costs from these MSEs, which greatly affects the MSEs by increasing their costs. This reduces the competitiveness vis-a vis the medium and large enterprises within the region. It also often enhances the production time which delays their supplies. Since most of the units are export oriented, in few occasions, the units have also faced a loss of orders due to their inability to price their products competitively vis-à-vis suppliers from other countries.

In addressing this challenge and creating state of the art digital printing facility within the cluster, a group of 10 units have consented to join hands to form a special purpose vehicle (SPV) to set up a centre for digital printing- NextGen Digitex LLP as common facility centre for Gurugram apparel manufacturing cluster. This proposed intervention under the Mini Cluster Development Scheme of Government of Haryana is expected to address the common infrastructure related problems of the cluster.

1.2 Geographic and Economic Traits

The state of Haryana was formed on 01 November 1966. It is situated in the northwest of India with the capital of Chandigarh as a Union Territory. The state is surrounded by Delhi, Rajasthan, & Uttar Pradesh with around 30% of the total area of the state falling under National Capital Region (NCR). The state stands 21st in terms of its area. According to

the Census of India 2011, the state is 18th largest by the population. Over the last 5 decades since its formation in 1966, Haryana has transformed and matured into a diversified economy with a thriving secondary and tertiary sector. Although Haryana has an area covering just 1.3 per cent of the country, Haryana contributes nearly 3.63 per cent to India's GSDP. During 2004-16, the state's GSDP grew at a compound annual growth rate (CAGR) of 12.12 per cent.

1.3 Economic Scenario of the State

Haryana is 11th state in the country in terms of GSDP, with growth rate of around 6.5%. With just 1.3% of the total area of the country, Haryana contributes to nearly 3.4% of India's GDP. Haryana, with just 1.37% of the country's geographical area and 1.97% of country's total population, is counted among the first few states with the highest per capita income. The state economy is predominantly agricultural.

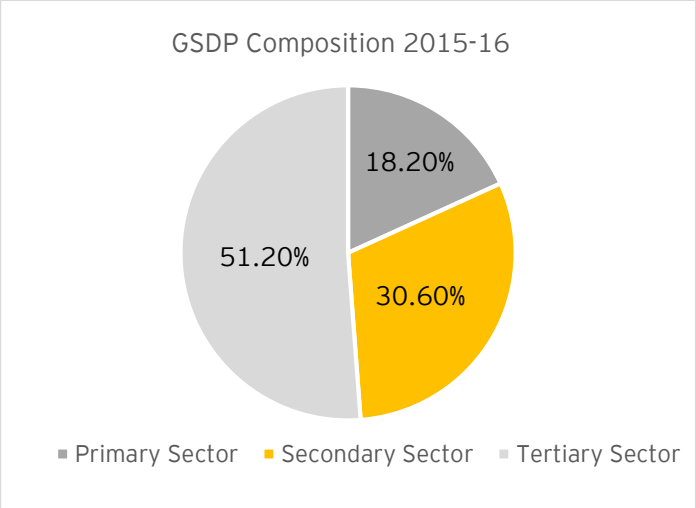


Figure 1: GSDP Composition 2015-16

The industry sector contributes about 18% of the total GSDP of the state. Haryana is fast emerging as one of the most favoured investment destinations in India. The globalization of markets and a resilient economy have given an incredible drive to the industrial sector in Haryana, which already has a competitive advantage in terms of strategic location, basic infrastructure as well as large skilled, educated and young workforce. Besides, the State has investor-friendly policies and regulatory environment as outlined in its recent EPP 2015. It is one of the leading states in terms of industrial production, especially passenger cars, mobile cranes, two-wheelers & tractors. It is the 2nd largest contributor of food grains to India's central pool, accounts for more than 60% of the export of basmati rice in the country and is 3rd largest exporter of software.

The state is in transition from agrarian to manufacturing sector. The state is gradually transforming from an agrarian economy to an industrial economy. To boost the growth rate further and make Haryana a favourable investment destination, the State has developed the Enterprise Promotion Policy in 2015. With the Enterprise Promotion Policy-2015, the state has envisaged a sustainable industrial spectrum in the state with a special focus on MSMEs in its endeavour for effecting a balanced regional and sustainable development. In order to accelerate the industrial growth in the state, the focus of the government is on holistic development, i.e., by encompassing initiatives for resource efficiency improvement, smarter technology, and environment friendly methods which reduce resource consumption.

1.4 Demographic Trends of Gurugram

The District is situated in the NCR of Delhi and is one of Delhi's four major satellite cities within the NCR. It is located 30 km south of national capital New Delhi, about 10 kilometres from Dwarka sub-city and 268 km south of Chandigarh, the state capital. It is within commuting distance of Delhi via an expressway and Delhi Metro. The District is the second largest city in the Indian State of Haryana and is the industrial and financial centre of Haryana. It has the 3rd highest per capita income in India after Chandigarh and Mumbai. It is also the only Indian city to have successfully distributed electricity connections to all its households. Witnessing rapid urbanisation, Gurugram has become a leading financial and industrial hub with the third-highest per capita income in India.

Haryana Urban Development Authority (HUDA) and Haryana State Industrial and Infrastructure Development Corporation (HSIIDC) have multiple industrial estates and areas in the district which house facilities belonging to a plethora of sectors. The district has positioned itself as an industrial hub for sectors such IT and auto & auto-component manufacturing with a major chunk of industrial units in these sectors. The district has local offices for more than 250 fortune 500 companies.

As per the 2011 census, Gurugram had population of 1,514,432 (816,690 as male and 697,742 as females) which comprises 6% of total state population. The district has a pollution density of 1204 per square kilometre.

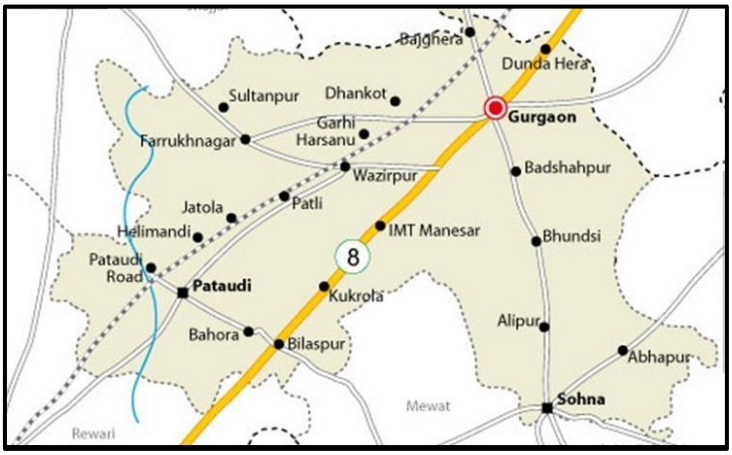


Figure 2 District Map of Gurugram

Sector Overview

2. Sector Overview

The garment & apparel manufacturing sector as a whole can be grouped into four types of establishments based on the manufacturing processes:

(1) End-end Garment manufacturing: Units engaged in manufacture of garments that first knit fabric and then cut and sew the fabric into a garment.
(2) Fabric manufacturing: Units engaged in knitting and dyeing of the apparel. Knitting, when done alone, is classified in the textile mills subsector, but when knitting is combined with the production of complete garments, the activity is classified in apparel manufacturing.
(3) Cut and sew: Units engaged in purchasing fabric and then cutting and sewing to make a garment, and
(4) Units exclusively engaged in printing (sublimation, digital, screen and rotary), embroidery and finishing.

The garment & apparel manufacturing sub-sector includes a diverse range of establishments, manufacturing full lines of ready-to-wear apparel and custom apparel: apparel contractors, performing cutting or sewing operations on materials owned by others; jobbers performing entrepreneurial functions involved in apparel manufacture; and tailors, manufacturing custom garments for individual clients are all included.

In the recent time, digital printing has witnessed a soaring demand and emerged as a major production process in garment and apparel manufacturing, being done in two ways: a) direct to fabric (DTF) and b) direct to garment (DTG).

- **Direct to Fabric (DTF) printing**: It is performed directly on a roll of fabric mainly cotton, silk, polyester and rayon using reactive ink, acid ink and disperse ink. It is majorly used for clothing, home textiles and soft signage.

- **Direct to Garment (DTG) printing**: It is performed on textiles and garments using specialized or modified inkjet technology. It is used exclusively for apparels: shirts, t-shirts and jeans.

2.1 Brief Global Scenario

Despite the global economic downturn, the global apparel industry continues to grow at a healthy rate and this, coupled with the absence of switching costs for consumers and great product differentiation, means that rivalry within the industry is no more than moderate. The apparel industry is of great importance to several economies in terms of trade, employment, investment and revenue. This particular industry has short product life cycles, vast product differentiation and is characterized by great pace of demand change coupled with rather long and inflexible supply processes.

The global apparel market is worth approximately US$ 1.7 trillion, and constitutes around 2% of the world's GDP. EU, USA and China are the world's largest apparel markets with a combined share of approximately 54%. The top 8 apparel consuming nations form a dominating share of 70% of the global apparel market size. The global market size is

expected to reach US$ 2.6 trillion in 2025, growing at a projected rate of 4%. The major growth drivers of the global apparel market will be the developing economies, mainly China and India, both growing in double digits. China will become the largest apparel market adding more than US$ 378 billion in market size by 2025, while India will be the second most attractive apparel market adding more than US$ 121 billion by 2025. The global textile and apparel trade stood at US$ 820 billion in 2014, growing at a CAGR of 5.6% over the last decade. Apparel categories had a larger share of 56%, while textile categories had the remaining share of 44% in the overall trade. EU & USA are the largest markets for textile and apparel with a share of 36% and 15% respectively[1].

The largest segments of the garment industry are women's suits, dresses, skirts & shorts with a 28% share; followed by men's suits, jackets & trousers with a 17% share; Jersey pullovers & cardigans with a 14% share; T-shirts, singlets, vests with 11% share; men's shirts with a 7% share; women's blouses & shirts with a 5% share, etc. The market segmentation of the global apparel industry is provided in figure 3[2]:

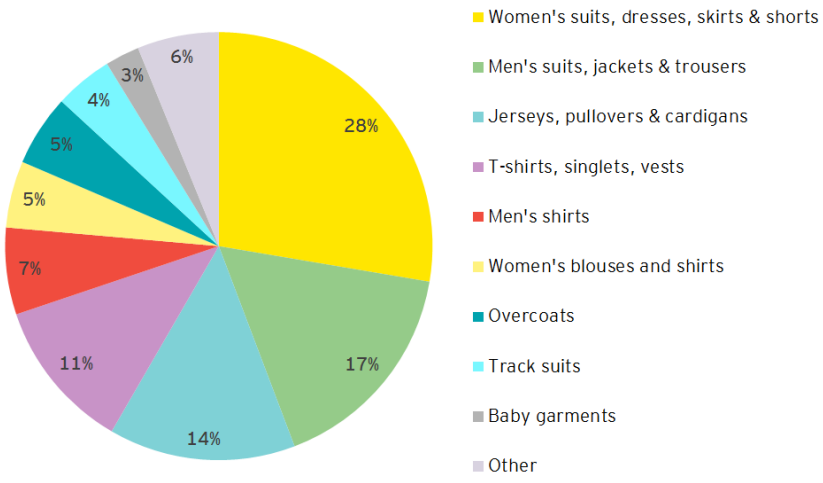


Figure 3: Global Apparel Market Segmentation (based on global export data)

2.2 India Scenario

India's textile and garment industry is one of the oldest industries in Indian economy dating back several decades. Even today, the sector is one of the largest contributors to India's exports with approximately 11 per cent of total exports. The textile and garment industry is also labour intensive and is one of the largest employers. The textile and garment industry can be broadly divided into two segments - yarn and fibre, and processed fabrics and apparel. India accounts for ~14 per cent of the world's production of textile fibres and yarns (largest producer of jute, second largest producer of silk and cotton, and third largest in cellulosic fibre). India has the highest loom capacity (including hand looms) with 63 per cent of the world's market share.

[1]FICCI White Paper – Global Shifts in Textile Industry & India's Position - 2016
[2] International Apparel Federation

As per IBEF data, the domestic textile and garment industry in India is estimated to reach US$ 141 billion by 2021 from US$ 67 billion in 2014. Increased penetration of organised retail, favourable demographics, and rising income levels are likely to drive demand for textiles.[3] The trend of exports of textiles and garments from India is illustrated in figure 4.

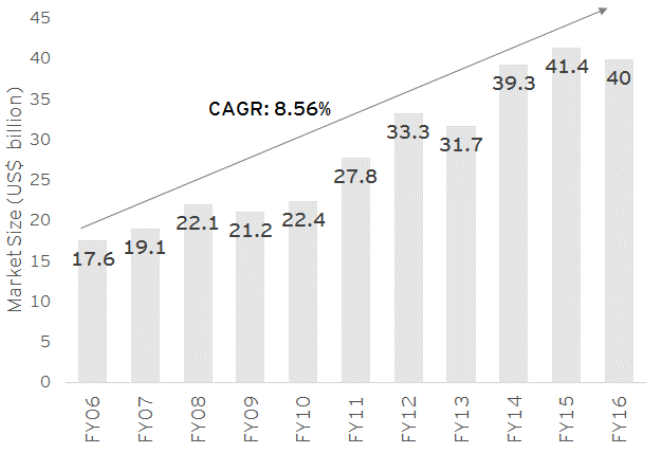


Figure 4: Textile and Garment Exports from India (US$ billion)

India was the third largest exporter of textiles in 2015, and the 8th largest exporter of clothing (behind China, European Union, Bangladesh Vietnam, and Hong Kong)[4]. Textile and apparel exports from India were US$ 40 billion in 2016, and expected to increase to US$ 82 billion by 2021. Readymade garments remain the largest contributor to total textile and apparel exports from India, contributing 40 per cent to total textile and apparel exports. Cotton and man-made textiles were the other major contributors with shares of 31 per cent and 16 per cent, respectively. A snapshot of the Indian textile and garment industry is provided in figure 5:

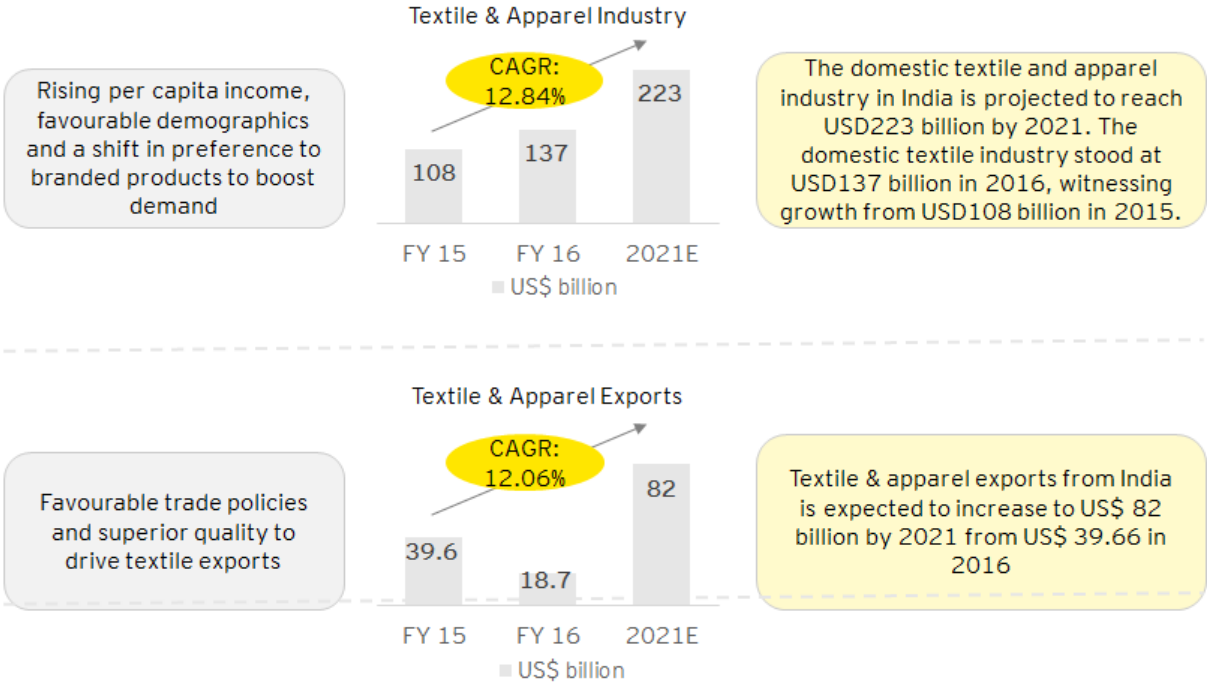


Figure 5: Indian Textile & Garment Industry Snapshot5

[3] IBEF – Textile and Apparel Industry in India
[4] WTO - World Trade Statistical Review 2016
[5] IBEF – Textile Industry in India

2.3 Textile and Garment Sector in Haryana

The textile and garment industry in Haryana exhibits strength across the entire value chain from fibre to fashion. The state is one of the leading cotton producers in the country with Sirsa, Fatehabad, Bhiwani, Hisar and Jind being the main cotton producing districts. This bounteous availability of raw materials gives Haryana a competitive advantage in the textile sector. The cluster based approach to industrial development has produced robust textile centres such as Panipat, Gurugram, Faridabad, Hisar and Sonipat. The sector today provides employment to approximately 1 million people with readymade garments worth USD 2 billion being exported from the state annually[6].

Blessed with a resource advantage with Haryana as one of the largest producers of cotton in Northern India. Haryana is one of the leading producer of textiles and readymade garments.

Panipat is famous for handloom products, furnishing fabrics, terry-towels and blankets. Also, Gurgugram has emerged as hub for manufacturing of Readymade Garments. Some ofthe largest manufacturers of Readymade Garments in Asia have their manufacturing facilities in Gurugram.

The numbers of industries under this sector stand at more than 4624 units. The sector employs more than 98518 people which is a share of more than 12% of the total mapped manpower in the state. The total textiles and apparels exports (handloom and readymade goods) stood at Rs. 88,704 million as in 2015-16. The overall exports composition of textiles and readymade garments (including handlooms) as a percent of total exports from the state has averaged close to 10% from 2013-14 to 2015-16. Clearly, textiles and readymade garments is a leading export oriented sector of the state[7].

Figure 6 provides details of the net value added, gross fixed capital formation, and employment by the textiles and apparel sector in Haryana as well as the state contribution of the sector to national levels from 2011-12 to 2013-14[8]:

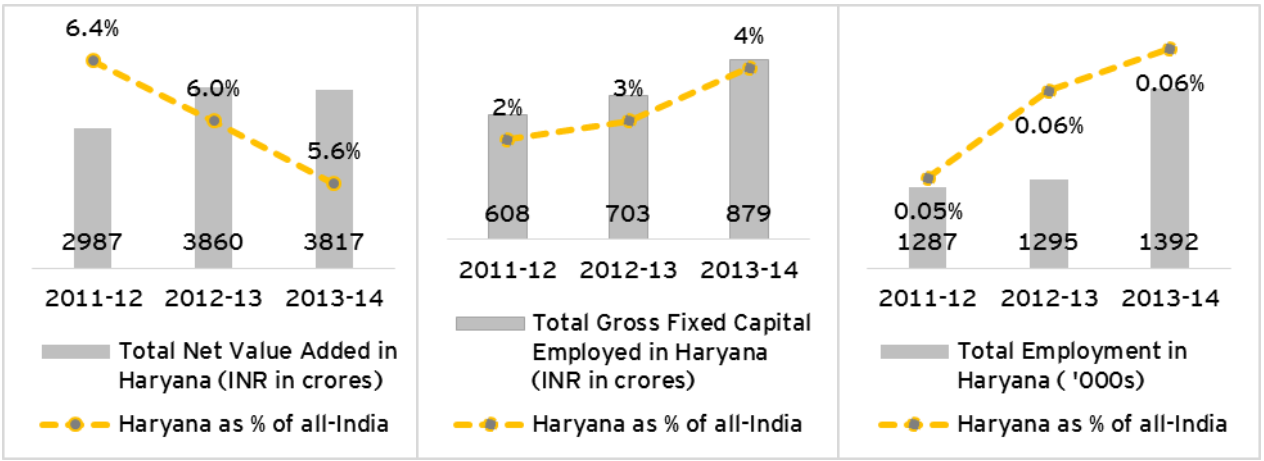


Figure 6 Haryana Textile & Garment Industry Snapshot

[6] Haryana Textile Policy 2017
[7] Department of Industry and Commerce, Haryana
[8] Annual Survey of Industries

The Draft Textile Policy 2017 for the state is targeting an investment of INR 5000 crore in the sector, creation of 50,000 new jobs and CAGR of 20% during the policy period.

2.4 Cluster Scenario

The history of the evolution of Delhi and its surrounding areas into a garment hub traces back to the Mughal period. Shahjehanabad, today's old Delhi was a renowned tailoring centre during the Mughal Empire. Since the middle of the seventeenth century, the city hosted the *karkhane* (workshops) of many highly skilled artisans who catered to royal households. Toward the end of the Mughal period, many craftsmen and artisans left the city, whole those who remained gathered in *mahallas* (craft neighbourhoods) scattered across the city. Production started organizing for market-based forms of distribution, a trend that was accelerated by the arrival of the British. After independence, there was a shift from tailoring into 'modern' garment-making. By the 1960s, Okhla, Karol Bagh, Gandhinagar as low-rent commercial areas turned into an industrial area and emerged as a centre for readymade garments. In addition, unorganized and small garment manufacturing units, clustered around Naraina, Sitapuri and Janakpuri.

However by the 1980s, real estate prices and labour costs began soaring in Okhla and civic regulations tightened as a result of which industrial units were no longer allowed to do business within residential areas. As a result, garment units along with other industrial activities moved away from Delhi to newer industrial sites of Noida and Gurugram.

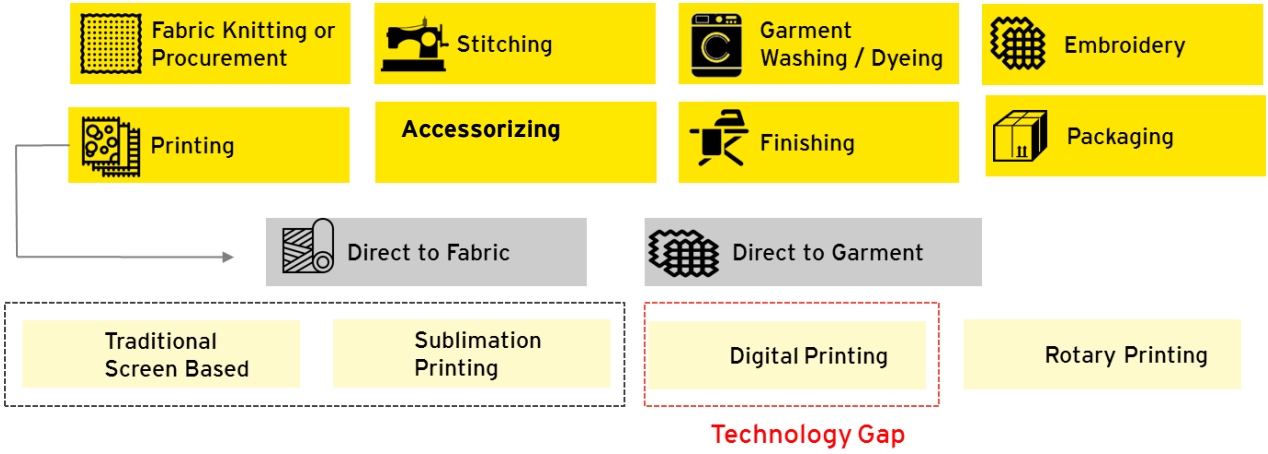
Gurugram's proximity to Delhi, easy availability of raw materials, and lower land costs made it an attractive location for garment units to migrate. In addition, there was an influx of labour into Gurugram due to lower cost of living. The formation of the cluster was marked by the establishment of a large garment production units by Orient Craft in the mid of 1990's. The production unit had facilities for knitting, dyeing, processing, cutting and stitching. This led to setting up of other large scale production units such Gaurav International, Richa Global.

As the retail market boomed, there was an increase in orders to large units. Large units became unable to meet this demand alone, particularly smaller and more niche orders which were not viable for them to produce. Additionally, larger units which were not vertically integrated required units for undertaking activities such as knitting, dyeing, etc. These factors gave rise to smaller units in the area. This led to the emergence of a number of micro and small garment units in Gurugram. Importantly, the micro and small units which agglomerated in Gurugram were organized in nature. This helped create a robust garment and apparel ecosystem in the region.

2.5 Nature of Cluster

The Gurugram apparel manufacturing cluster houses about 650 units across the entire value chain, out of which a sizeable 70% units are micro and small; around 450. The cluster is located in Gurugram, and manufactures garments for the domestic and international market.

Units undertake some or all of the following activities:



Of the total units, approximately 70% are engaged in end-to-end apparel manufacture (from stitching to packaging) excluding printing/embroidery; 12% are engaged in fabric manufacturing, 9and 8% are engaged exclusively in printing and embroidery respectively. The distribution of units as per the nature of operation of cluster units are provided in figure 7:

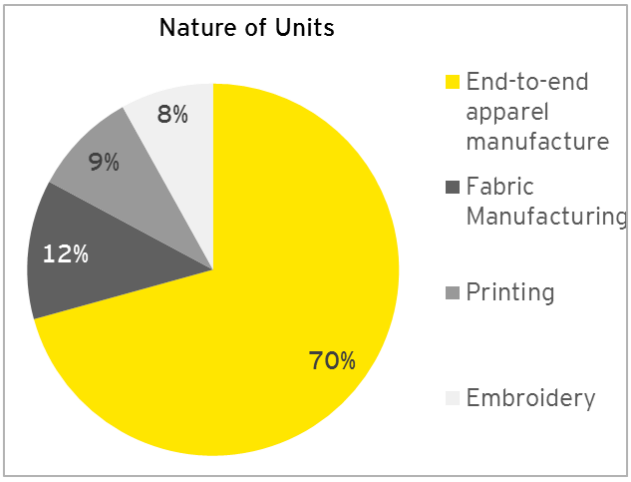


Figure 7: Nature of Cluster Units

The garment units lack the required technology for digital printing, as a result of which they have to outsource these services to private players. Private players charge a higher fee, which greatly affects the MSEs. This significantly increases their costs, thereby reducing their competitiveness. It also often enhances the production time which delays their supplies. As a result of this, the units are facing loss of orders due to their inability to price their products competitively vis-à-vis other countries.

2.6 Products of the Cluster

The cluster produces garments for the domestic and international market, including large retailers as well as the open market. Products include a range of garments for men and women, including T-shirts, tops, dresses, jackets, scarves, children's clothes, etc. with various types of embroidery and prints.

Units undertake a range of activities; processing or producing garments at various stages including – garment dyeing / washing, cutting, stitching, printing, embroidery, and finishing.

A few of the products manufactured by the cluster are presented in figure 8:

Jacket

Ladies Dress

Printed T-Shirt

Figure 8 Products of the Garment Units

Diagnostic Study Findings

3. Diagnostic Study Findings

A diagnostic study was undertaken by the cluster members in October 2017 to map the existing business processes in the cluster, identify the gaps, and understand the requirements of the cluster. It was observed that many units required digital printing facilities, as they were currently availing these services from external service providers at high prices, and often with production delays. Additionally, external service providers sometimes do not accept the low volume orders from MSMEs.

The DSR was approved by the Director of Industries & Commerce on 20th December 2017 and the SPV was granted permission to go ahead with preparation of Detailed Project Report (DRP) for the cluster.The SPV was granted permission to go ahead with preparation of DPR for the cluster. The major findings of the DSR are presented in the following sections.

3.1 Cluster Actors and their role

The primary stakeholders in the cluster are the garment units based in various parts of Haryana. The other stakeholders include the major industry associations, government agencies (mainly DIC, regulatory bodies, raw material suppliers, and academic/training institutes. These cluster actors provide various services to the cluster units. Some of the major cluster actors located in and outside the cluster and catering to the units of the region are mentioned below:

A. Industry Associations

- **Gurgaon Chamber of Commerce and Industry:**

  The chamber works towards the promotion and development of industrial commerce and trade in the Gurugram. It is well recognised by the State/Central Governments. The Chamber serves Gurgaon, Udyog Vihar, Sohna, Roz Ka Meo, IMT Manesar, Pataudi and Dharuher industrial belts and enjoys representation on various Advisory/Consultative committees. The Chamber is well equipped to take up members problems with the concerned authorities. The Chamber acts as a common point of contact with the collective strength of its members on issues of local, regional and National importance. It is responsible for organizing, from time to time, meetings with Government officials to voice trade and industry's problems/suggestions on various issues and also to seek on the spot decision. It is affiliated to apex bodies like FICCI, CII, ASSOCHAM, and PHD Chamber. Chamber is also affiliated to international Chambers namely Indo American Chamber and Indo German Chamber. It also enjoys affiliation with the Government of India to issue Certificate of Origin for Exports and its recommendations for grant of VISA are recognised by several Embassies and High Commissions in the country.

- **Apparel Export Promotion Council (AEPC)**

  Incorporated in 1978, AEPC is the official body of apparel exporters in India that provides assistance to Indian exporters as well as importers/international buyers

who choose India as their preferred sourcing destination for garments. AEPC works towards integrating the entire industry - starting at the grass root level of training the workforce and supplying a steady stream of man power to the industry; identifying the best countries to source machinery and other infrastructure and brokering deals for its members and finally helping exporters to showcase their best at home fairs as well as be highly visible at international fairs the world over. Twice a year, AEPC showcases the best of India's garment export capabilities through the prestigious India International Garment Fair, playing host to over 350 exhibitors. Several cluster units are members of AEPC, which provide a platform for interaction between members and for showcasing their products to expand their market.

- **Apparel Exporters & Manufacturers Association (AEMA)**

  AEMA was set up in 1981, and has since functioned as an important think tank for the Central Government and for the AEPC in advocating policy and encouraging smooth growth of the export oriented apparel manufacturing sector. AEMA undertakes activities for its members, including holding exhibitions for domestic and international buyers and facilitating members to participate in international garment fairs like India International Garment Fair and Vastra. AEMA is located in Gurugram.

B. Government Bodies

- **District Industries Centre (DIC)**

  DIC is the most important government stakeholder for the cluster. The office of DIC comes under the Dept. Of Industries and is headed by General Manager who is assisted functional managers and technical field officers. DIC promotes and routes subsidy to micro and small enterprises in the region. The Mini Custer Scheme under which the garment units want to set up a CFC will also be implemented through the DIC office. The Gurugram DIC is actively promoting cluster development in the district and also helps the local units register under Unique Aadhar Memorandum (UAM). It would play a key role in formulation of the garment units SPV.

- **MSME-Development Institute, Delhi**
  MSME - Development Institute, Delhi is a field office of the Development Commissioner (MSME), Ministry of MSME, New Delhi, which is an apex body for formulating, coordinating and monitoring the policies and programmes for promotion and development of MSMEs in the country. MSME -DI provides a wide range of extension / support services to the MSMEs.

- **Haryana State Infrastructure & Industrial Development Corporation (HSIIDC)**
  HSIIDC is a major agency in the State to promote the setting up and promotion of small, medium and large scale industrial units. The Corporation also acts as a State-level financial institution and provides long term loans for industrial projects.

  The important activities of the Corporation are:

- Development of industrial areas/ estates
- Helps entrepreneurs on matters such as securing registrations/ licences/ clearances from the statutory/other authorities.
- Provision of term-loans

- **Haryana Urban Development Authority (HUDA)**

  HUDA is the urban planning agency of the state of Haryana in India. It was established in 1937. It plays a key role in land development and execution of development works like roads, water supply, sewage, and drainage etc.

- **National Small Industries Corporation (NSIC)**

  National Small Industries Corporation (NSIC) was established in the year 1955 with a view to promote, aid and foster growth of small industries in the country. Gurugram industry is served by the NSIC branch office in Gurugram. It provides diverse services to MSMEs in Gurugram such as:

  - Helps entrepreneurs in purchasing machinery and equipment
  - Equipment leasing and working capital finance
  - Information on technological up gradation
  - Composite loan scheme and export assistance

C. Educational Institutes

- **Institute of Apparel Management (IAM), Gurugram**

  Institute of Apparel Management (IAM) provides short term courses, undergraduate, postgraduate and MBA courses in various areas related to apparels, apparel manufacturing, fashion & lifestyle design, fashion communication, fashion production management, fashion retail merchandising, apparel market merchandising, apparel manufacturing & entrepreneurship, etc. The institute also conducts workshops and value added programmes for people in the apparel industry.

- **Apparel Training & Design Centre (ATDC), Faridabad**

  The Apparel Training & Design Centre (ATDC) is India's largest Quality Vocational Training Provider dedicated to the Apparel Sector. The ATDC was set-up as a society for training of shop-floor and supervisory workforce for the apparel export sector in 1991 under the aegis of AEPC, the largest Export Promotion Council in the country. The Institute through its 200 Pan-India centres renders service to the downstream Apparel export and domestic industries having trained over 200,000 candidates in short-term courses under Integrated Skill Development Scheme (ISDS) of Ministry of Textiles (MOT), and also about 80,000 candidates in longer duration Vocational courses, over the years[9].

- **The Technological Institute of Textile & Science (TIT&S), Bhiwani**

[9] http://www.aepcindia.com/aepc-initiative

The Technological Institute of Textile & Science (TIT&S) provides training in textile technology, textile chemistry, fashion & apparel engineering, etc. Courses cover areas including fibre specialization, yarn specialization, fabric specialization, textile manufacturing, fashion & designing, garment & accessories, computerized designing, textile & garment surface designing, textile & garment quality assistance, etc. The institute also has a research & development wing which undertakes research on textiles and other streams.

- **National Institute of Fashion Technology (NIFT), Delhi**
  National Institute of Fashion Technology (NIFT), set up in 1986 under the aegis of Ministry of Textiles, Government of India, is a Statutory Institute Governed by the NIFT Act 2006. The institute provides a firm foundation in fashion education in the domains of Design, Management and Technology. NIFT also has a network of NIFT Resource Centres, which serve as a Fashion Information System (FIS), catering to the needs of fashion professionals, entrepreneurs and fashion educators. The integrated collections of print, digital, audio and visual creative resources are the only systematically documented learning resources available in India for the study of international and contemporary Indian fashion. FIS is a decentralized network, computerized and coordinated by the National Resource Centre at NIFT.
- **North India Textile Research Association (NITRA), Ghaziabad**
  Northern India Textile Research Association (NITRA) is one of the prime textile research institutes in the country. The textile industry and Ministry of Textiles, Govt. of India jointly established NITRA in 1974 for conducting applied scientific research and providing support services to Indian textile industry.NITRA's prime activities include R&D technical consultancy, quality evaluation of materials, manpower training and publishing technical books and papers.To meet industrial HRD needs, NITRA regularly conducts various industry-recognized job-oriented techno-management training programs across the complete textile & apparel supply chain on full-time and DLP modes. In addition to this, NITRA regularly organizes seminars, workshops and also conducts on and off-shop customized training programs.

D. Banks / FIs

- **Haryana Financial Corporation (HFC)**
  Haryana Financial Corporation, based in Chandigarh was promoted jointly by the Government of Haryana and the Industrial Development Bank of India (IDBI). HFC has been approved by SEBI as a category-I merchant banker. The corporation's activities include merchant banking, trade finance, lease finance and term lending. The corporation has diversified its range of financial services to include no-fund-based assistance in the form of guarantees, letter of credit and forex services. The DPR for the project shall be appraised by HFC.
- **Small Industries Development Bank of India (SIDBI)**

SIDBI is the apex financial institution responsible for the growth and development of the MSME sector. Almost all the government subsidy schemes and bilateral lines of credit are implemented through SIDBI. The business strategy of SIDBI is to address the financial and non-financial gaps in MSME eco-system. Financial support to MSMEs is provided by way of (a) Indirect / refinance to banks / Financial Institutions for onward lending to MSMEs and (b) direct finance in the niche areas like risk capital, sustainable finance, receivable financing, service sector financing, etc.

- **State Bank of India, Gurugram**
  State Bank of India is the lead bank of the Gurugram district and many local garment units have a banking relationship with the State Bank of India.

E. Leading Manufacturers

Some of the leading garment manufacturers in Gurugram include Orient Craft, Richa Global, and Gaurav International.

Key stakeholders of Gurugram cluster are presented in figure 9:

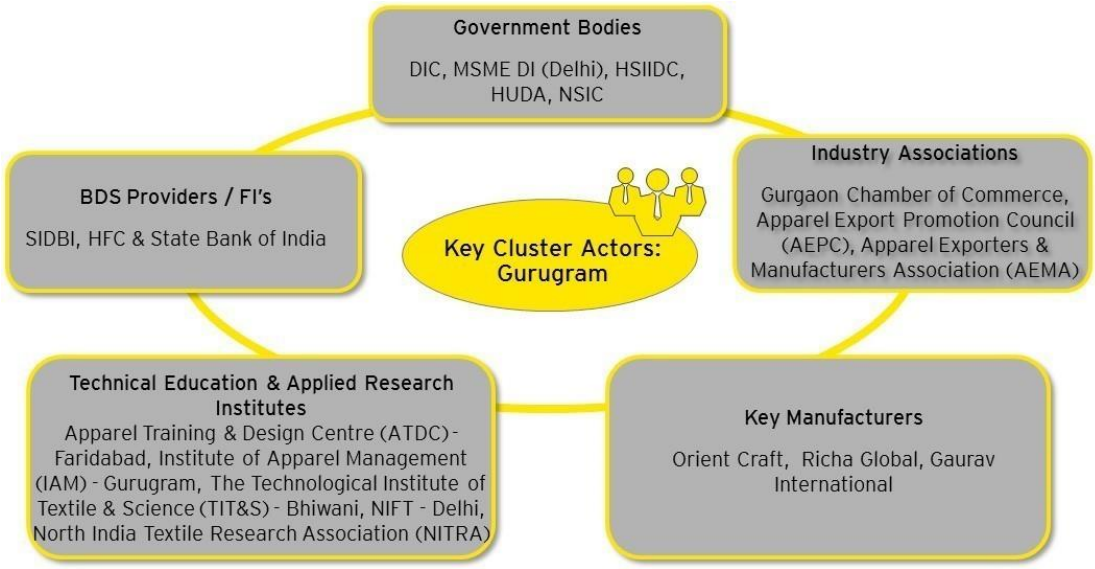


Figure 9: Key Cluster Actors

3.2 Cluster Market, Employment and Turnover

Since the production process and end-product in case of garment and apparel manufacturing is largely standardized, the raw material requirement is also the same. The major raw materials used in the manufacturing process are such as yarn, fabric, threads, accessories, labels, etc. The quantity of raw materials to be used depends upon specifications provided by the buyer, based on size, style, etc. Buyers provide 'tech packs' to the manufacturers, which consist of the specifications of the specific garment. In most cases, buyers also specify from where the raw materials are to be procured.

Raw materials used by the garment manufacturers can be classified into primary and secondary. The primary raw materials provide the basis of the garment, i.e. the yarn to be

knitted or the fabric. The secondary ones are for enhancing the aesthetic appeal and customization. Some of the major primary and secondary raw materials are mentioned in figure 10:

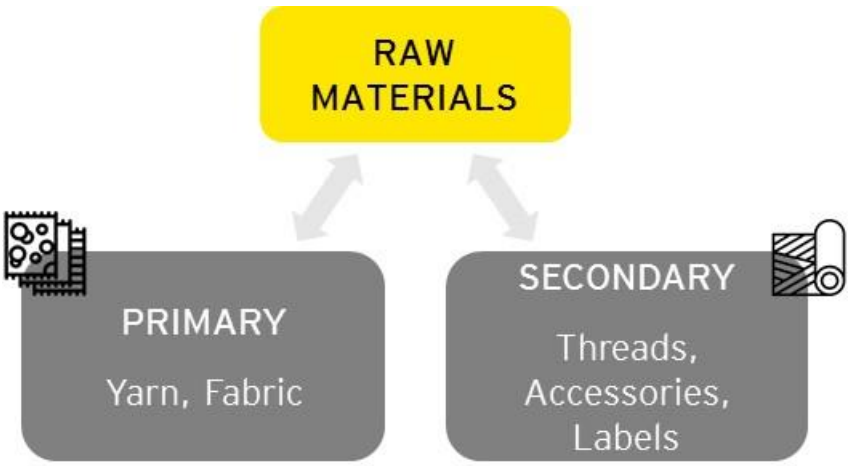


Figure 10: Raw Materials Used by Garment Units

Secondary raw materials: Buttons (left) and Collar tapes (right)

Most of the secondary raw materials are available easily in and around the NCR area mainly Gurugram, Delhi and Faridabad. These are sourced from the local dealers, depending on the type of raw material and buyer specifications. However the primary raw materials mainly yarn and fabric is imported, both from within India and internationally.

The raw materials along with the supplier sources are mentioned in table 1:

Table 1: Sourcing of Raw Material by Gurugram Garment Units[10]

Input	Material	Supplier	
		Domestic	International
Primary Raw Material	**Yarn, fabric**	Domestic suppliers from Salem, Surat, Ludhiana, Delhi, Gurugram, etc.	China and Hong-Kong
Secondary Raw Material	**Threads**	Domestic suppliers, Imported, or provided by the buyers (labels)	-
	Accessories (buttons, trims, tapes etc.)		
	Labels		
	Dyes		

Quality checking of the primary raw materials mainly fabric is undertaken at the point of delivery. It is both manual as well as automatic. While the former involves random checks of the merchandise, the latter involves the use of specialized machinery for fabric inspection and testing.

The units in the cluster operate across the spectrum – from completely domestic manufacturing to entirely export oriented, catering to both domestic and international markets with a sizeable share of international exports to the tune of 75% of the total production. Manufacturing is predominantly done to order, and is usually based on the buyer's specifications. The MSMEs cater to relatively smaller / niche orders, while larger players in the market cater to high volume orders.

MSMEs are exporting directly to large global brands as buyers. Some of the large players to which the cluster caters include Walmart, Mango, Gap, Mustard Pie, Blayer, Muji (Japan), Arvind Textiles etc. Units in the cluster are exporting to countries such as USA, Canada, Europe, Japan etc. In the domestic market, the MSMEs are catering to the large textile & garment players of the region such as Satya Paul.

The Gurugram garment industry is quite labor intensive. On an average, a micro and small apparel manufacturing unit employs 50 persons which can go up-to 80 persons (micro units employ approximately 30 people and small units employ 50 units) during the peak season while larger units employs around 100 persons. This takes the total employment by the cluster to around 60,000 on an average. The units in the cluster are employed across unskilled, semi-skilled and skilled activities. On the trade front, the workforce is involved in designing, sewing, dying, washing, finishing, printing, embroidery, etc. The garment industry is an appealing industry for women, and one third of the manpower comprises of women.

[10] Source: Stakeholder Consultation Inputs

The garment industry workforce in the garment industry is well paid, with average salaries of INR 12,000 per month for workers in un-skilled and semi-skilled work operating on a 10 hours shift. Wages of skilled labour for activities such as cutting, sewing, etc. can be as high as INR 30,000 per month and for managerial work is around INR 50,000 per months.

The total turnover by the MSE units is about INR 1200 crores. The average annual turnover of micro units is approximately INR 80 lakh, of small units is approximately INR 5 crore, and of medium units varies from INR 10 – 25 crore

However, there is an enormous potential of increasing the production from cluster units by reducing the outsourcing of activities by units to private players. This would also result in enhanced turnover. Currently, units are charged high prices for services such as digital printing, which affects their competitiveness. Recommendations around these have been provided in the DSR.

3.3 Production Process

The units in the cluster are engaged in various activities across the value chain of garment manufacturing. These have been represented in the table below:

Table 2 Units in garment manufacturing

Nature of Production Process		Number of Units (approx.)	% of total units
Garment manufacturing (end-end)		460	71
Fabric manufacturing (Knitting & Dyeing)		80	12
Printing	Sublimation Printing	30	9
	Digital Printing	20	
	Screen based Traditional Printing	10	
	Rotary	0	
Embroidery		50	8
Total		650	

As can be seen from the table above, 71% units are engaged in end-end garment manufacturing. These units have in-house facility for fabric cutting, sewing, designing, accessorizing, washing and packaging. However embroidery and printing services are being outsourced to units which are exclusively catering to the printing needs (comprising 9% of the total units in the cluster) and charging exorbitant prices. Only a few units that are involved in end-end garment manufacturing, have an in-situ traditional or a

sublimating printing facility. However, this is not very beneficial because the in-situ traditional printing facilities (mainly screen printing) is highly polluting and time consuming while the existing sublimation facility is confined to polyester fabric printing. Therefore the case for digital printing machinery for a larger variety of fabrics such as cotton, is highly warranted.

The flow chart of the production process followed by garment units is shown in figure 11. Figure 12 shows images of production process in a garment unit of Gurugram.

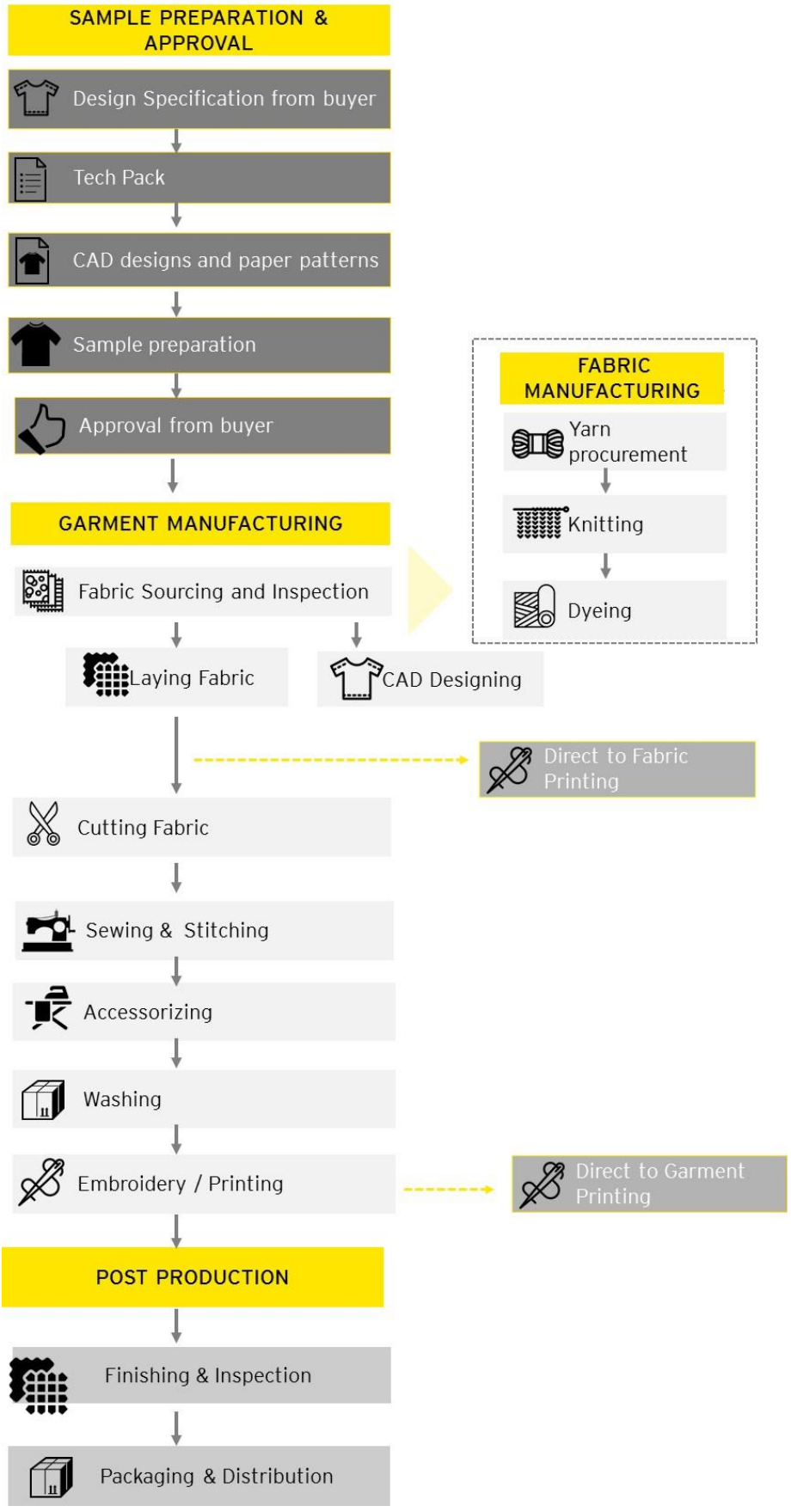


Figure 11 : Flow Chart of Production Process

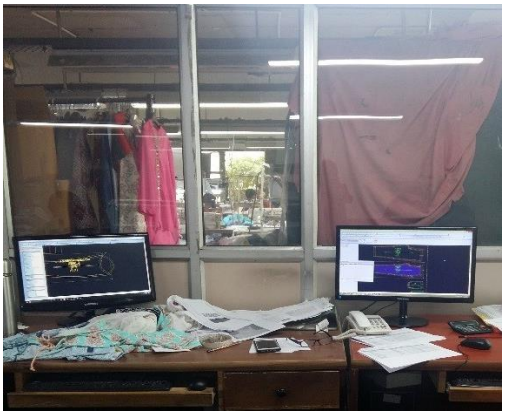
As detailed in figure 11, garment manufacturing involves the following steps:

1. Sample Preparation and Approval:
   - **Receipt of Tech Pack:** Units receive a 'tech pack' detailing out the specifications of the garments from the buyers.
   - **Pattern making and CAD designing:** Paper patterns are cut based on the tech pack. Patter process can be either manual or automated using CAD designing. The CAD designing is a technical process which requires trained labour.
   - **Sample:** Based on the paper pattern, one sample garment is made and send to the buyer for approval.

2. Garment Manufacturing
   i. **Order:** Units order the required fabric and accessories as per the buyer's specifications. At this stage, an inspection and quality check of the fabric is done to check the color consistency, texture and any visible damage. This can be done either through manual inspection or by using fabric testing and inspection machine.
   ii. **Graded paper patterns:** Paper patterns are cut based on size of garments and other specifications. The patterns can be derived either through manual cutting or based CAD designing, followed by cutting.
   iii. **Laying of fabric:** Fabric is laid on a table and the top layer is marked. This step is in preparation for the cutting stage. The fabric laying can also be done after the cutting process.
   iv. **Direct to Fabric Printing:** Printing is done on the entire layered fabric roll**.** This is primarily an outsourced activity and therefore a major cost area in the production process.
   v. **Cutting:** As per the graded patters, the fabric is cut into pieces of the garment to be sewn together. Post this, the cut pieces are bundled based on size and thaan in order to ensure that there is no variation in the same type and colour of garment (as even during dying there may be slight colour variations).
   vi. **Sewing/Stitching:** Stitching is done in an assembly line fashion, with groups of people sewing different parts of the garment and then passing it on to the next (e.g. One group may stitch the collar, another may stitch sleeves, and another may stitch all the parts together). On an average a unit in the cluster has 50-60 sewing machines.
   vii. **Accessorizing:** Once the stitching is done, the sewn pieces ate accessorized with buttons, collars, and zips as per the specification.
   viii. **Washing:** The sewn and accessorized apparel is then washed in large washing machines, well-equipped for soft wash and hard wash.
   ix. **Direct to Garment Printing and/or Embroidery:** The washed apparel is outsourced for printing (Direct to Garment) and embroidery as per the specification. This is primarily an outsourced activity and therefore a major cost area in the production process.

3. <u>Post Production:</u>
   i. **Finishing:** This involves cutting of extra threads, inspection of each unit for defects, washing and ironing of the garments.
   ii. **Packaging:** Garments are packaged in preparation for shipping.
   iii. **Shipping:** Garments are shipped to the buyers or distributors.

Fabric Inspection (UV Based)



CAD Designing

Fabric Laying

Sewing & Stitching

Accessorizing

DTG- Embroidery/Printing

Washing

Finishing

Final Inspection

Packaging

Figure 12: Steps in the Production Process

3.4 Value Chain Analysis

Value chain analysis of the most commonly produced cluster products (printed women's blouse) has been conducted to ascertain the major cost areas and identify suitable interventions. The value chain analysis of a digital printed women's blouse is provided in table 3:

Table 3: Value Chain Analysis of Printed Ladies Blouse[11]

Particulars	Value Added	Total Value (INR)	% of cost of production
Fabric (approx. 1.35 metres @ INR 150 per metre)		203	34
Lining (approx. 1.5 metres @ INR 55 per metre)	83	286	14
Printing Cost @ INR 150/ m)	100	386	17

[11] Source: Stakeholder Consultation inputs

Trims & Accessories (zipper, labels, elastic)	50	436	8
Cutting	6	442	1
Stitching (labour cost)	80	522	13
Finishing & Packaging	22	544	4
Overheads (~10%)	60	604	10
Total Production Cost			604
Profit Margin (30%)			181
Selling price			**785**

The value chain analysis has been prepared based on the stakeholder consultation. It can be observed that the **raw materials (both primary and secondary together) amounts to more than 50% of total cost of production. Printing on fabric is outsourced, and currently accounts for 17% of the total cost of production**, second largest cost contributor after raw materials. The total cost of printing in the value chain analysis table above is based on a conservative scenario of INR 150/mtr. As opined by multiple MSEs during the on-site visits during the preparation of the DSR, the cost of outsourced digital printing can range from INR 150/mtr. to INR 200/mtr. The industry is labor intensive, with labor costs for stitching alone accounting for approximately **13%** of total production cost. The competitiveness of the cluster units can be increased by targeting the major cost area of printing, and providing common facilities to the units in order to undertake printing at a lower cost.

3.5 Strengths, Weaknesses, Opportunities and Threats (SWOT) Analysis

A SWOT (Strengths, Weaknesses, Opportunities and Threats) analysis of MSME garment manufacturing units in the cluster has been carried out keeping in mind the technology, marketing, product quality, skills, inputs, innovation, business environment and energy/environment compliance of the units. The SWOT analysis is provided in table 4:

Table 4: SWOT Analysis of the Cluster

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
Market	▸ Steady local and international demand for cluster products. ▸ Cluster located within the Gurugram Industrial area, which is well connected with all major national and international industrial hubs. ▸ Cluster located in the proximity of NCR which is a major supply hub. ▸ Strong natural business ecosystem in the region with presence of a large number of buying houses.	▸ Presence of other large players to whom bulk orders are made. These units have a well-established clientele. This makes market penetration, a challenge. ▸ Units are unable to price their garments competitively due to high cost of digital printing on cotton. The mark-up is to the tune of 50% on an average. ▸ Loss of orders occasionally due to inordinate delay in processing of orders.	▸ Rising income levels and increasing urbanisation driving the growth of domestic market ▸ Potential to price products competitively with acquisition of technology, in order to compete effectively with countries such as Vietnam , Bangladesh & China ▸ Potential for assistance under upcoming State Textile Policy	▸ Intense competition from global markets. ▸ Competition from other major players like Orient Craft, Richa Global, Gaurav International.
Technology/ Product Quality	▸ High focus on product quality as raw material can be inspected upon delivery both manually and by using specialized machinery	▸ Lack of technology access of digital printing on fabrics such as cotton. ▸ Heavy reliance on traditional screen based printing methods with	▸ Setting up of CFC for digital printing equipment, resulting in units being able to obtain these services both timely and at lower costs	▸ Increase in cost of production ▸ Increase in awareness of people on quality certifications shall lead to losing out to

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
	▶ Each unit undertakes inspection of pieces at each stage in their manufacturing process ▶ Some buyers specify testing labs from which products need to be certified ▶ Products are made as per 'tech packs' specified by buyers, and are thus made-to-order (No challenge of sale of inventory)	some units having a sublimation printing facility. However the sublimation machinery is largely confined to polyester and poly-blend printing. ▶ Lack of relevant digital printing facility, in-situ, results in units having to obtain these from private service providers at higher costs. ▶ Since products are manufactured in batches, errors in steps such as cutting result in that entire batch being rejected. ▶ For exports, there is growing importance on various ecological parameters, which makes for more stringent requirements for the units.	and price their products competitively.	business / requirement for more stringent testing procedures. ▶ Competition from vendors manufacturing products at lower costs with state-of the art digital printing machines. ▶ Rapid technology obsolescence.
Skill/Manpower	▶ Skills acquired on-the-job ▶ Presence of technical institutes such as Apparel Training & Design Centre at Gurugram.	▶ High labour costs ▶ Lack of interaction between SMEs and technical institutes for providing technical training ▶ No mechanism to mobilize regional youth for	▶ Customized training programs on required skills (operations, soft skills etc.) ▶ Engage technical institutes for skill development programs	▶ Youth interested to work in other lucrative sectors ▶ Big companies such as Richa Global, Gaurav international, Orient Craft attract large

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
		▸ trainingin the sector	▸ Increased cost of labour in China provides opportunity for Indian industry	chunks of labour force
Inputs	▸ Availability of raw materials from local dealers ▸ Buyers sometimes specify dealers from whom they want materials	▸ No web portal displaying prices and sources of raw materials ▸ Challenge in getting quality dyed fabrics at affordable prices with some of the units doing traditional dyeing in-house.	▸ Potential to develop a portal displaying information (price, suppliers) of raw materials	▸ Cost of power in India is, on average, higher than key competing countries like China, Bangladesh, Vietnam
Innovation	▸ Ability to manufacture garments as per the manufacturers specifications ▸ Some units create their own designs and sell these	▸ Lack of a standardised ERP solution for garment industry ▸ Low investment in development of designs ▸ Lack of process automation ▸ Lack of adoption of lean manufacturing clusters such as Six Sigma, Kaizen	▸ Development of a standard IT based ERP solution ▸ Structured processes for information sharing among SMEs in the cluster	▸ Could lose business to other more price competitive manufacturers from countries such as Sri Lanka, Bangladesh, China if units do not innovate
Business Environment	▸ Gurugram well known as a leading industrial hub of India ▸ Steady growth in domestic demand ▸ Cluster well known as a garment hub across North India	▸ Lack of knowledge of regulatory frameworks and government schemes among micro level garment units ▸ High cost of industrial land in the cluster ▸ Lack of common	▸ Establish CFC with latest technologies for digital printing ▸ Create better awareness of government schemes and regulations	▸ Change in policies and regulatory environment ▸ Increase in land rates ▸ Environmental policies result in shutting down of dying houses (traditional dyeing

Area	Current situation		Future	
	Strengths	Weaknesses	Opportunities	Threats
	▶ Conducive policy and regulatory initiatives ▶ Active State Govt. and schemes for development of the sector ▶ Proactive industries associations in Gurugram	infrastructure/CFC facilities ▶ No long term vision of industrialists		methods) which is impacting garment industry
Energy/Environment	▶ Increased focus on environment due to requirement from buyers	▶ Lack of knowledge of energy efficiency resulting in higher energy consumption ▶ High energy cost structure because of lack of efficient processes	▶ Regular checks on maintaining quality and safety standards ▶ Potential to reduce energy costs by energy auditing	▶ Increase in power tariff ▶ Increased focus on environment standards ▶ Dyeing and washing require environment compliances, and if units diversify into these services then these compliances and certifications would have to be met.

3.6 Major Issues / Problem Areas of the Cluster

As can be deciphered from the analysis in the preceding sections, cost competitiveness of micro and small units engaged in garment manufacturing in the cluster, is affected by absence of in-house digital printing facility as most of the MSEs are unable to individually afford digital printing facility. As a result of which, the printing requirements of MSE's is being outsourced to the private players which end up charging exorbitant prices, sometimes double the prevailing market prices. Only few MSEs have an in-house traditional screen and polyester based sublimation printing facilities but each of these has a drawback and cannot substitute the need for an all-fabric digital printing machinery.

Traditional Screen Printing:

The traditional screen based printing involves ink/dyes to be dropped down on garment where the design is, lending itself to large run orders as well as to simple logo work. But with major colour complexity, specificity and smaller orders, the use of traditional screen printing becomes difficult. In addition, the process requires separation of graphic (a process that breaks the down graphic into the different colours needed to print it), a screen must be burned for each colour and it requires a screen printing press to be setup. This can become a **time consuming, expensive and polluting process.**

Sublimation Printing:

Sublimation printing involves thermal transfers of dye from the carrier paper to the garment. When heated, sublimation pigments pass from a solid state to a gas state (never becoming liquid) and imbed themselves in the fibres of the garment. Sublimation produces a print that has virtually no feel (little or no hand) on the garment. Unlike thermal transfers, screen-printing and direct to garment printing sublimation needs a synthetic substrate to effectively transfer to simply put it is **not cotton friendly** but is preferred when decorating fabrics such polyester and poly-blends.

The key cluster challenges, as regards the dearth of digital printing infrastructure are mentioned below:

1. **Lack of cost-effective digital printing:** With changing consumer preferences and taste, there is soaring demand for digitally printed fabrics and garments, both nationally and internationally. Currently the MSEs are unable to afford digital printing facilities in-house and mainly rely on large private players units, resulting in increased costs. A vast majority of MSEs are outsourcing their digital printing requirement for versatile fabrics such as cotton to private players, situated in Delhi-NCR region including Gurugram and the neighbouring states such as Rajasthan (Jodhpur), Gujarat (Surat) and Punjab (Ludhiana).

2. **Absence of facility for units to digitally print the fabric/garment:** Units need to approach private players for the digital printing on fabric. Private players print the as per the specifications, but charge high prices. On an average, the cost of digital printing per metre of fabric/garment when outsourced cost anywhere between INR 150 to INR 400 depending upon the specifications and complexity as against the normal cost ranging from INR 80 to INR 150. This indicates a mark-up of close to 50% by the private players for every metre that is printed.

3. **Challenge in obtaining job-work service:** External service providers often do not accept low volume orders from MSMEs, as it is not financially viable for them. Thus units are often unable to get job work done, or have to pay high prices for it. Since MSMEs are not priority customers of the service providers due to the low volume of their orders, they often delay the orders if they receive bulk orders from large scale players.

4. **Limited Access to Finance:** High rate of interest restricts the ability of small firms to obtain loans, as they operate on low margins. Additionally, machinery suppliers are also not willing to offer a line of credit to small scale entrepreneurs.

5. **Limited access to Markets:** Units are facing challenges in competing with international players due to high manufacturing costs. Further, job work is costly due to lower volume production by micro and small enterprises.

Due to lack of these facilities, the units face higher costs and production delays, thereby reducing their competitiveness, especially compared to other countries domestically as well as for export. This results in loss of market share. The printing facilities, if provided through a CFC in the cluster with government support will help units become more competitive.

In addition to the digital printing facility, the proposed CFC also requires setting up of an ETP, given the water guzzling nature of textile manufacturing and importantly, printing as

a sub-process which entails water consumption to the tune of 8% and cotton as a fabric with highest water consumption at 250-300 l/kg[12].

3.7 Key technologies missing

The technological gaps on various fronts that the CFC proposes to target, along with scope and illustration of the interventions is provided in table 5.The digital printing facility will have two digital printing machines along with post-digital printing machinery which will form a part of the CFC.

Table 5: Technology Gaps Identified and Interventions

[12]http://web.iitd.ac.in/~arunku/files/CVL100_Y16/Lecture%201%20ETP%20Textile_verII.pdf

Sr. No	Facility/Equipment Proposed	Technology Gap	Rationale
1.	**Digital Textile Printer**	▸ Absence of equipment for digital fabric printing for cotton and other fabrics. This is currently outsourced, and comprises a major component of the cost of apparel manufacturing. ▸ The more prevalent methods- screen printing (traditional) and sublimation printing for polyesters have relative demerits. ► Screen printing (traditional) methods are time intensive, lack requisite quality and specifications and are polluting in nature. ► Sublimation printing is most conducive for polyesters and poly-blend fabrics and cannot handle most other fabrics like cotton. ▸ Units are currently dependent on private service providers, resulting in high costs and production delays. ▸ Private service providers often do not accept orders or charge extremely high prices due to lower volume orders of MSMEs. This leads to reduced competitiveness of the units.	Presence of digital printing facility in the cluster shall ensure **cost effective fabric and garment printing on cotton, silk, wool, flax, rayon, and cellulose fibre blends.** The digital printing facility in the cluster shall run on commercial basis. Provision of digital printing machinery will address the technology gap of digitally printing on cotton, reduce the cost of outsourcing, and make the MSE units cost competitive. It will further enable cluster units to expand their market share and tie up with large buyers, both national and international.
2.	**Computer Aided Design (CAD) Software**		
3.	**Post Digital Printing Machinery**- It will consist of: ► Hot Water Generator ► Ager/Streamer ► Hydro Extractor ► Washing Machine ► Tumble Dryer ► Ironer Machine ► Secondary machinery ▸ Genset (85 kWA) ▸ Effluent Treatment Plant		By establishing post digital printing facility in the CFC, the units will be able to undertake post digital printing within the CFC, which at present is an outsourced operation. This will enable the MSE units to reduce the lead production time, manage cost of production and meet/expand the market demand.

3.8 Cluster growth potential

The potential for the Gurugram garment cluster to grow is enormous, owing to the soaring market for garments in India and internationally. Gurugram is located in the proximity of Delhi, providing it with a strategic advantage in terms of its proximity to a key supply hub. Additionally, there is a large raw material base readily available as Haryana given that the state is a large cotton producing hub, and several textile units are present in the area.

Currently, units are facing challenges in cost competitiveness and efficiency due to the absence of digital printing facilities. They are obtaining these services from external providers, which is increasing their costs as a result of which the units often get priced out and face loss of orders. Against this backdrop, if digital printing facilities across a variety of fabrics are provided to the units under the CFC mode, their production costs and inefficiencies will reduce and they will be able to compete with other international players from low-cost production destinations such as China, Vietnam, Bangladesh, etc.

Diagnostic Study Recommendations

4. Diagnostic Study Recommendations

Based upon the diagnostic study and intense discussions with various cluster stakeholders regarding gap identification in the cluster, hard interventions (setting up of CFC) are being proposed to enhance the competitiveness of the garment cluster units.

The cluster has presence of proactive industries associations which frequently organize awareness and training programs for the garment industry. The awareness level of the units is found to be satisfactory. While some units are independently conducting training programmes, the others are members of IAMSME of India, which actively conducts trainings and workshops related to entrepreneurship development, IPR, energy efficiency, GST, barcoding, equity schemes, SME IPO process, sustainability, etc. and also sponsors members for national and international trainings. Several units currently attend domestic and international garment exhibitions. Hence, the cluster does not intend to obtain government funding for soft interventions. However, the details of the initiatives undertaken by the cluster mentioned in the section below.

The recommendations for hard interventions have been elaborated in subsequent sections. The recommendations were finalized in a stakeholder consultation conducted with key members of the garment cluster in Gurugram in October 2017. For finalization of machinery, user charges and financial aspects towards creation of the Detailed Project Report, subsequent interactions with the members were conducted in December 2017 and January 2018.

4.1 Soft Interventions undertaken by the cluster for setting up the CFC

- **Member Meetings**: Cooperation and trust building among members is foremost condition for smooth functioning of the cluster and SPV. Series of meetings and on-site visits were held between the cluster members during the month of October in Gurugram to enhance cooperation among member units and obtain inputs for the DPR. Members of the cluster were informed about the registration of company for the cluster and identification of land for the CFC. Members of the cluster raised their concerns during the meeting which were resolved by other members of the cluster. For finalization of machinery, user charges and financial aspects for the Detailed Project Report, joint discussions with the SPV members were conducted in December 2017 and January 2018.

- **Meetings with Vendors:** The members of the cluster have held meetings with multiple vendors for procuring digital printing machinery and the effluent treatment plant. The members has been actively working with the machinery suppliers to understand the working, specifications and are also attending training sessions for machinery operations. In addition, the members have also conducted on-site visits to the effluent treatment plants.

- **Awareness programmes** organized by individual units and IAMSME of India: IAMSME of India actively conducts trainings and workshops related to entrepreneurship development, IPR, energy efficiency, GST, barcoding, equity schemes, SME IPO process, sustainability, etc. and also sponsors members for national and international trainings. Several units are members of IAMSME of India, and regularly attend these trainings and workshops. They actively share this information with other cluster members.

- **International &National Trade Fairs:** Several member units attend trade fairs abroad such as Australia, Russia, USA, Europe, and South Africa. Nationally, the members have attended Textile Fair at Gandhinagar, Garment Fair in Okhla, etc. Units which have attended these fairs have shared their learnings and leading practices with other units of the cluster.

4.2 Hard Interventions for Setting up a CFC (Machines / Technology in the proposed CFC)

The cluster would require the following common infrastructure facilities on an urgent basis to improve the competitiveness of the micro and small apparel manufacturing units, and to enable them to move up the value chain. The members of the proposed SPV with support from the state government are willing to set up a dedicated Common Facility Centre which shall have state-of-the-art digital printing facility. This facility shall provide a much needed technical impetus to the cluster units and will enable them to become more competitive.

The following common infrastructural facilities are being proposed for the CFC, with support from the state industry department. The proposed facility along with its description, usage are detailed below:

4.2.1 Digital Printing Facility

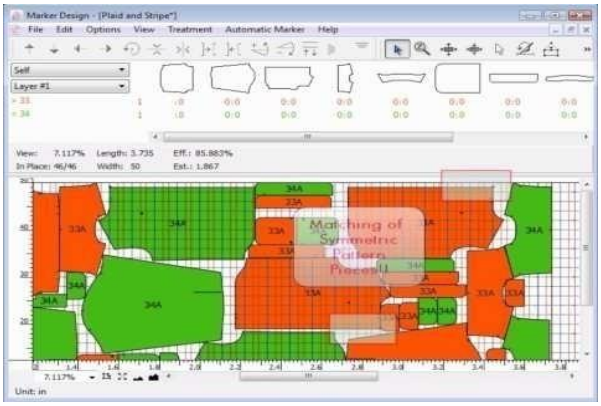
Digital Textile Printer-Konica Minolta Nassenger PRO 120

Reactive digital textile printing machine will be used for three styles of printing - direct printing, resist dyeing and discharge printing. It will be equipped with multiple nozzles (512 on an average) , vast color capability of 4&8

process colors with print width of digital textile printers using rolled fabric typically ranging from 1.60 to 3.20 meters (60-126 inches).The machine uses reactive ink, can print on a variety of fabrics including woolens and requires wet post-treatment (steaming, washing and drying).

Features:

- Suitable fabrics: cotton, silk, wool, flax, rayon, nylon and some cellulose fiber blends
- Open software system
- Embedded remote diagnostic
- Embedded web server for cost report



CAD Software: The CAD software will employ computer technology for design and design documentation.

Post Digital Printing Equipment: This will include end-end facility to handle the post digital printing operations raging from steam based cleaning to washing and drying of the printed garment. It will consist of:

1. Hot Water Generator: Used for creating thermo-dynamic temperature conditions for dye fixation, transfer and sublimation.	
2. Ager/Industrial Steamer: Used for steaming and color fixing after digital printing with a four, six and eight rolls capacity.	
3. Hydro Extractor: Used for post-washing of printed fabric, for sucking water/ reducing humidity content through suction tubes. It is highly useful for synthetic fabrics and wool.	

4. Washing Machine: Washing machine will be used for handling the laundry by circulating freshly washed clothes in hot dry air, in a larger drum. The large drum with steam will be used for drying clothes evenly and reduce creases.	
5. Tumble Dryer: Tumble Dryer will be used to remove moisture from a load of clothing and other textiles, usually shortly after they are washed in a washing machine. It consists of a rotating drum called a "tumbler" through which heated air is circulated to evaporate the moisture, while the tumbler is rotated to maintain air space between the articles.	
6. Heated Ironer: Heated Ironer will be used for ironing the printed fabric with heating either in steam, electric or thermic oil.	

The project will be beneficial both for individual units and the cluster as a whole. The setting up of the CFC is expected to generate the following benefits for the cluster units:

- Enhanced value addition for cluster products.
- Significant reduction in cost of production and higher capacity utilization by each unit.
- Increased productivity and reduced inefficiencies.
- Higher degree of competitiveness of cluster units.
- All cluster firms shall be encouraged to use the facility. Many micro unit entrepreneurs who could not afford to significantly contribute by way of necessary investment to the capital contribution of the project have also been accommodated.
- The CFC will generate more job opportunities both at the cluster and individual unit level due to enhanced capacity utilization.
- The CFC is also expected to enhance the levels of cooperation and joint-action. amongst cluster stakeholders and SPV members to cooperate in other areas such as joint marketing initiatives, common raw material procurement and so on.
- It will also complement the efforts of state government in promoting clusters in the state and serve as a model for upgrading MSME clusters.

- The expected outcome across areas has been detailed in Table 6:

Table 6: Expected Outcome of CFC

Area	Current Scenario	Expected Out Comes
Production Units	About 450 MSEs	About 500MSEs
Competitiveness	Most of the units are unable to price their products competitively, and are priced out by other countries	• Through efficient pricing resulting from lower cost of production, units will be able to realize higher profit margins and gain market competitiveness. • Better export competitiveness.
Employment	About 60,000	About 66,000
Technology	• No digital printing facility for fabrics such as cotton which are highly demanded. The existing sublimation printing facility is restricted to polyester and poly-blend fabric. The traditional screen based printing, again, is outdated, time intensive and polluting means of printing. • Outsourcing of digital printing for which exorbitant process are being charged by private players.	• Digital printing facility centre (printing machinery and post printing infrastructure) with effluent treatment plant for units to use at a nominal fee.
Production	• Delays • High costs	• Quick Production • Lowered production costs • Competitive prices
Turn Over	About 1200 crores (MSEs)	Will increase to about 1320 crores in the first year, expected to subsequently increase by 10% each year

Special Purpose Vehicle (SPV) for Project Implementation

5. SPV for Project Implementation

The micro and small units at Gurugram apparel manufacturing cluster came together to form a Special Purpose Vehicle (SPV) as a limited liability partnership under the Limited Liability Partnership Act 2008. The SPV is named as **'NextGen Digitex LLP'** with LLPIN XXXXX. The registration certification has been attached as annexure 3. The capital contribution of the LLP shall be Rs. 59.68 which shall be enhanced in the near future, or as and when required. The members are micro and small sized firms (registered units) in Gurugram involved in apparel manufacturing activities.

DIC, Gurugram and the State Government both played an important role in SPV formation by cluster stakeholders. The SPV was incorporated in 2018 and already includes about 11 members who will make the necessary contribution to the capital of the LLP. The SPV shall be open for new members to join and for the existing members to leave while maintaining a minimum member base of at least 10 at all times. The proposed CFC will be implemented on public-private partnership basis through SPV **'NextGen Digitex LLP'** by availing support from Government of Haryana (under Haryana EPP 2015) State Mini Cluster Development Scheme.

The SPV members have a track record of cooperative initiatives. SPV members are also members of prominent cluster associations. Cluster members have been autonomously undertaking several soft interventions to enhance knowledge and exposure of the cluster units on new trends in the garment industry and enhancing productivity of their units. This includes exposure visits to fairs and sharing of best practices, registration under UAM, awareness programs on new trends in garment manufacturing, entrepreneurship development, IPR, energy efficiency, GST, barcoding, equity schemes, SME IPO process, sustainability, etc. These programs were conducted in collaboration with DIC, Apparel Export Council of India (AEPC), the State Government, IAMSME of India, etc.

The SPV has conducted a series of stakeholder consultations (with various members, DIC, Gurugram, and EY experts) during finalization of project components, selection of technologies and development of Detailed Project Report (in December 2017 and January 2018). The SPV has been instrumental in spreading awareness about cluster development under state mini-cluster development scheme and has also helped in validation of DSR. The SPV has kept the state Government and DIC Gurugram engaged during the entire process of DSR and DPR preparation.

5.1 Partner profile and capital contribution

List of Partners: All the 11 SPV members will be the partners in NextGen Digitex LLP. Other than these partners, the SPV will have provision of having 5 designated partners and one partner each from the state (DIC) and state government. The SPV comprises members from micro and small garment manufacturing units. It is homogeneous in nature due to similar products and activities performed by the cluster units.

S. No.	Designated Partner Name	Name of the unit	Unit address
1	Mr. Animesh Saxena	Neetee Clothing Pvt. Ltd.	128, Udyog Vihar-1 Gurugram
2	Mr. Ram Kumar Sharma	Geo-clothing Pvt. Ltd	256, Udyog Vihar, Phase-6 Sec-37,Gurugram
3	Mr. Mukesh Seth	Vrishti Impex	226, Udyog Vihar-VI, Gurugram
4	Mr. Sanjay Yadav	Sahana Fashions Private Limited	486, Pace City II, Sec 37, Gurugram
5	Mr. Moti Mullick	Maestro Engineering Private Limited	78 - 79 Udyog Vihar Phase - 6 , Sector - 37 , Gurugram

The designated partners have several years of successful experience in garment manufacturing and are also well versed with the benefits of cluster development initiatives. These units are financially viable in nature. Post the DSR validation, the DIC Gurugram also acknowledged the genuineness and enthusiasm of the SPV members to undertake project initiatives under state mini cluster development scheme and has recorded that the CFC demand is authentic.

Members of the SPV have been engaged in manufacturing of garments in Gurugram for several years. SPV members have considerable experience in marketing and manufacturing of garments. Partners/members have been in close interactions with technical experts, government institutions and machinery suppliers.

The SPV was formed with the objective of taking up cluster level activity in a joint and coordinated manner, wherein all units have equal say. The capital contribution pattern of members of the registered SPV includes the contribution from every member of SPV and no individual partner holds more than 10 per cent stake in the capital of the LLP.

Table 7: Details of SPV Members of Gurugram Apparel Manufacturing Cluster

S. No.	Unit Name	Authorised Person	Unit Address	Contact No.	UAM No	Email ID
1	Neetee Apparel LLP	Mr. Animesh Saxena	218, Udyog Vihar-1 Gurugram	9810119435	HR05B0001187	saxena@neetee.com
2	Vrishti Impex Pvt. Ltd.	Mr.Mukesh Seth	226, Udyog Vihar-VI,Gurugram	9811642216	HR05B0004813	mukesh@vrishtiimpex.com
3	Geo Clothing Private Limited	Mr.Ram Kumar Sharma	Udyog Vihar,Phase-6 Sec-37,Gurugram	9818183979	HR05B0004626	Geoclothing2@gmail.com
4	RRG Fabrics	Tarun Gupta	143-144 pace city 1, near hero Honda chowk,Gurugram	9811013445	HR05B0005277	tarun171171@gmail.com
5	3A Clothing Company	Anu Chadha	Plot -107,Sector 37,Udyog Vihar Phase 6,Gurugram	9810028932	HR05B0000808	anuchadha@3aclothing.com
6	Shree Siddhivinayak	Vikas Bhargava	Hans Ram Market Opp Plot No 7 C Sector 18,Gurugram	9560773338	HR05D0004782	bhargava2u@gmail.com
7	DRIPS Apparels Pvt. Ltd.	Mr.Sanjay Yadav	530, Pace City II, Sec 37, Gurugram	9810210955	HR05B0005496	dripsapparels@gmail.com

8	Garden Textiles Pvt. Ltd.	Ms.Shalima	Plot No. 377, Pace City-II, Sector-37, Gurugram	9810276373	HR05A0005208	shalima@venturefashion.in
9	Saral Clothing Company	Mr.Vinay Rakheja	139, Udyog Vihar Phase-VI, Gurugram	9811663281	HR05B0005228	saralclothing@yahoo.in
10	Sahana Fashions Private Limited	Mr.Sanjay Yadav	486, Pace City II, Sec 37, Gurugram	9810210955	HR05B0000217	Sunita.fashions@yahoo .co.in
11	Maestro Engineering Private Limited	Mr. Moti Lal Mullick	78 - 79 UDYOG VIHAR PHASE - 6 , SECTOR - 37 , Gurugram	9810042926	HR05B0005945	moti@maestro-fashions.com

5.2 Initiatives undertaken by the SPV

As mentioned in detail in section 4.1, the SPV members have proactively undertaken multiple capacity building initiatives to promote the cooperation among cluster units and enhance knowledge and exposure of the units. The major initiatives are:

- Regular member meetings for discussion on the CFC as well as technologies, marketing, discussion on incentives available to MSMEs, discussion on draft Textile Policy, etc.
- Participation in various programs for capacity building, awareness generation and technological advancement in the cluster.
- Identification of building to be taken on lease for the SPV.
- The preparation of DSR was led by EY consultant and the validation & approval process for the DSR was also led by EY consultant.

5.3 SPV Roles and Responsibilities

The SPV will play a guiding role in the overall management and operations of the CFC. It will provide direction to the management of the CFC and will monitor usage and performance of the CFC. The SPV will constantly report to the state Government about the performance of the CFC. The major roles and responsibilities that are envisaged to be performed by the SPV post the submission of this DPR are mentioned below:

- Coordinating with the state industry department for DPR approvals in the SLSC.
- Accompanying EY experts to various meetings at the state government departments
- Building lease deed agreement in SPV name.
- Garnering the capital contribution from the members.
- Formation of purchase committees for procurement of goods and services.
- Establishing, operating and maintaining all common facilities as mentioned in the DPR.
- Obtain any statutory approvals/clearances from various government departments.
- Recruit appropriate professionals to ensure smooth execution of the CFC.
- Collection of user charges from members and other users of the facilities as per the decided rates so as to meet the recurring expenses and future expansions of the CFC. While various estimates on user charges / service fee are presented in this DPR, all decisions including usage priority of facilities by members will be made on the basis of decision by members of SPV.
- Preparation and submission of progress reports to state industry department.

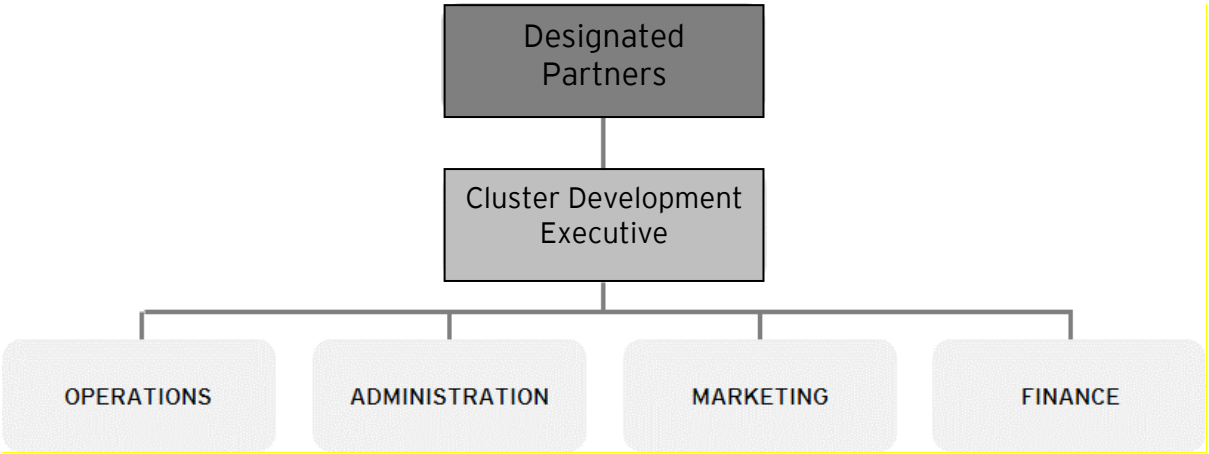
The LLP agreement indicates the democratic process in terms of decision making on the basis of votes. All members of SPV will meet once every fortnight/month to discuss/resolve operational issues. The management of the CFC will be a two tier structure for smooth and uninterrupted functioning. The executive body i.e. Designated partners will include the designated partners of the LLP, including one nominee of State Government (DIC). They will also remain present during meetings.

While various estimates on user charges/service fees are presented in this DPR, all decisions including usage priority of facilities by members will be made by unanimous decision of the members. The CFC will seek direction and guidance from the main governing body, and the day-to-day administration will be taken care of by the management that shall be appointed by the SPV designated partners. Their role is detailed below:

1. **Designated Partners**: The designated partners will be the main governing body and will oversee the operations of the CFC. They will have the decision making power in terms of fixing user fees (for members and non-members) and usage of reserves etc. for future expansion. The designated partners will oversee the entire operations; each designated partner will be entrusted with specific responsibility like marketing, technical, finance, public relations etc. based on their interests and experience.

2. **Managerial, Technical and Administrative staff**: A competent and well qualified professional with a background in the garment industry will be appointed as the cluster development executive (CDE) also referred to as the cluster executive officer, who will look after day-to-day operations of the CFC and shall be directly reporting to the designated partners. The facility will have its own expert staff (supervisors, operations and helpers) as per the requirement. The details of manpower and other requirements are already mentioned in the DPR in the project economics section. There shall be provisions for administrative staff such as accounts personnel, marketing professional, store-keepers etc. to ensure effective functioning of the CFC. The proposed organizational structure of the CFC is given in figure below:

Figure 13: Organisational Structure



Project Economics

6. Project Economics

6.1 Project Cost

The total project cost is estimated at Rs.239.68 lakhs. The project cost for setting up a CFC in the Gurugram apparel cluster includes the following:

1. Building (on lease)
2. Machinery and equipment
3. Miscellaneous fixed assets
4. Preliminary & Pre-operative expenses
5. Contingency
6. Margin money for working capital

The detail of each project component is provided below:

6.1.1 Building

The SPV shall lease one floor of a building on a 10 year irrevocable lease. The SPV has identified the building and obtained a letter establishing the availability of the building. The available area is 6000 square feet and the monthly rent for the first year would be Rs. 1,00,000/- with an annual increase at the market rate (estimated at 10%).

6.1.2 Plant and Machinery

As detailed in section 4.2 (hard interventions), one Digital Textile Printer machine (with CAD software) along the post digital printing machinery (6 machines) have been recommended to form the CFC as the primary machines. In addition, a list of 4 equipment including an Effluent Treatment Plant (ETP) have been proposed as the secondary machines. The machines that shall be used primarily for job work have been categorized as primary, whereas, the auxiliary/supporting machines have been categorized as secondary machines. The major equipment is for digital printing. The total cost of plant and machineries has been estimated at Rs. 202.18 lakhs including taxes, and contingency works out to Rs. 10.17 lakhs.

The details of the proposed machinery items are presented in the table below. The detailed specifications and quotations of the machines are provided in Annexure 7. The SPV has considered quotations for machinery from suppliers based on the manufacturer's reputation, service support, price and quality. However, an open online tendering system shall be followed for procurement of these machines during project execution, and selected vendors will be further invited to negotiate.

Table 8: List of Proposed Plant & Machinery

PLANT & MACHINERY (Rs. In Lakh)																	
S. No.	Machine Name	Quantity		Basic Price		Total Basic Price		Custom Duty as		Gst as Applicable *		Total Price		Grand Total	Supplier Options	Model / Specifications	Power (kW)
		Indigenous	Imported	Indigenous	Imported	Indigenous	Imported	Indigenous	Imported	Indigenous	Imported	Indigenous	Imported				
A	**Primary Machinery**																
1	Digital Printing Centre																
1.a	Digital Textile Printer-Konika Minolta Nassenger PRO 120		2		66.95	-	133.90	-	10.04	-	25.91	-	169.85	169.85	Apsom Technologies India (P.) Ltd.	Printing width 180 cm with 08 heads	25.00
1.b	CAD Software	1		2.00		2.00	-	-	-	0.36	-	2.36	-	2.36			-
2	Post Digital Printing Centre																
2.a	Washing Machine	1		2.05		2.05	-	-	-	0.57	-	2.62	-	2.62	Fabcare Garments & Textile Machinery (P.) Ltd.	Model WS 30	-
2.b	Hydro Extractor Machine	1		1.05		1.05	-	-	-	0.19	-	1.24	-	1.24		Model HDS 25	-
2.c	Drying Tumbler Machine	1		1.40		1.40	-	-	-	0.25	-	1.65	-	1.65		Model DTS 30	2.00
2.d	Industrial Steamer Machine	1		3.40		3.40				0.61		4.01		4.01		Model FPS 200,	5.00
2.e	Hot Water Generator	1		2.10		2.10				0.38		2.48		2.48		Model HWD 120	10.00
2.f	Primus Cylinder Heated Ironer	1		3.40		3.40	-	-	-	0.61	-	4.01	-	4.01		Model I 33-160, 12"x66" roller	12.00
	Sub Total (A)	**7**	**2**	**15.40**	**66.95**	**15.40**	**133.90**	**-**	**10.04**	**2.98**	**25.91**	**18.38**	**169.85**	**188.23**			**54.00**
B	**Secondary Machinery**																
1	Genset (82.5 KVA)	1		5.10		5.10	-	-	-	0.92	-	6.02	-	6.02	Sudhir Genset		-
2	Air Conditioner	2		0.35		0.70				0.20		0.90		0.90			-
3	Effluent Treatment Plant	1		5.50		5.50	-	-	-	1.54	-	7.04	-	7.04			3.00
	Sub Total (B)	**4**	**0**	**10.95**	**-**	**11.30**	**-**	**-**	**-**	**2.65**	**-**	**13.95**	**-**	**13.95**			**3.00**
	Grand Total	**11**	**2**	**26.35**	**66.95**	**26.70**	**133.90**	**-**	**10.04**	**5.63**	**25.91**	**32.33**	**169.85**	**202.18**			**57.00**

Note-

1. Custom duty & GST rates are tentative
2. Conversion rate: 1 USD = INR 65/- for Digital Textile Printer amounting to USD 103,000/-

6.1.3 Miscellaneous Fixed Assets

The CFC would also require fixed assets such as furniture, fixtures, computers etc. for smooth operations of the CFC. The total estimated capital expenditure for purchase of miscellaneous fixed assets is estimated to be Rs. 2.80 lakhs. Details are provided in the table below.

Table 9: Miscellaneous Fixed Assets

MISCELLANEOUS FIXED ASSETS (Rs. In Lakh)		
S. No.	Particulars	Amount
1	Office computer (3 nos.)	1.20
2	Furniture (desks and chairs)	1.00
3	Office Equipment	0.60
	Total	2.80

6.1.4 Preliminary and Pre-operative Expenses

Another major component of the project cost is the preliminary and pre-operative expenses. The preliminary expenses are envisaged as expenses incurred for registration of SPV, legal and administrative expenses, tendering forms, tendering cost, etc.

Pre-operative expenses include expenses for electricity connection charges, refurbishment of the building, administrative establishment, travelling, bank charges, stationery, telephone, and overhead expenses during machinery testing period such as salaries, machine testing cost, bank charges, traveling, etc. The total expenditure for preliminary and pre-operative expenses is estimated at Rs. 9.07 lakh (details provided in the table below).

Table 10: Preliminary and Pre-Operative Expenses

PRELIMINARY & PRE OPERATIVE EXPENSES (Rs. In Lakh)		
S. No.	Particulars	Amount
1	LLP Registration Charges	0.50
2	Tender forms & tendering cost	1.00
3	Project Report Preparation (DSR & DPR)	Nil
4	Project Management Charges	Nil
5	Travelling Cost	0.25
6	Pre-operative Salaries	1.20
7	Cost of Refurbishment, electricity fittings, plumbing	0.75
8	Lease deed registration charges	2.87
9	Security Deposit (Rent)	2.00
10	Bank Appraisal Charges	0.50
	Total	9.07

6.1.5 Provision for Contingencies

As per the guidelines of State Mini Cluster Development Scheme, a provision for contingencies has to be made on plant/machinery and building (not applicable in this case as the building is being taken on a lease basis). Contingencies on plant and machinery have been estimated at 5% that amounts to Rs. 10.17 lakhs.

6.1.6 Margin Money for Working Capital

The total working capital requirement during the first year of operation at 75% capacity utilization is estimated at Rs. 59.46 lakh. The corresponding loan for working capital, if required, is calculated at Rs. 44 lakh with margin money requirement of Rs. 15.46 lakh (being more than 25% of working capital requirement). The working capital requirement has been calculated based on requirement of one month of operational expenses & 3 months' debtor collection period. The calculation has been provided in the subsequent section.

6.1.7 Summary Project Cost

A summary of the total estimated project cost as per actual and as per State Mini Cluster Development Scheme is presented in the table below:

Table 11: Total Project Cost

PROJECT COST (Rs. in Lakh)				
S. No.	Particulars	Total Project Cost	Amount as per Guidelines	Remarks
1	**Land & Building**			
	a. Land Value	0.00		
	b. Land Development	0.00	0.00	Eligible (Max 25% of project cost)
	c. Building & Other Civil Works	0.00		
	d. Building Value	0.00		
	Sub Total (A)	**0.00**	**0.00**	
2	**Plant & Machinery**			
	a. Indigenous	18.38		
	b. Imports	169.85	200.00	Eligible
	c. Secondary Machines	13.95		
	Sub Total (B)	**202.18**	**200.00**	
3	**Miscellaneous fixed assets (C)**	**2.80**	**0.00**	Not eligible for grant
4	**Preliminary & Preoperative Expenses (D)**	**9.07**	**0.00**	
5	**Contingency**			
	a. Building @ 2%	0.00	0.00	
	b. Plant & Machinery @ 5%	10.17	0.00	
	Sub Total (E)	**10.17**	**0.00**	
6	**Margin money for working capital**			
	(Working capital required @ 75% C.U.)	15.46	0.00	
	Sub Total (F)	**15.46**	**0.00**	
	Grand Total (A+B+C+D+E+F)	**239.68**	**200.00**	

6.2 Means of Finance

The project will be financed from two sources: equity from SPV, and grant-in-aid from Govt. of Haryana (under State Mini Cluster Development Scheme, Haryana EPP-2015). Working capital loan, if required, will be secured from a preferred local bank. The assistance to the project from Govt. of Haryana under State Mini Cluster Development Scheme is envisaged to the tune of 90% of the project cost for project up to Rs. 200 lakhs. SPV will be required to contribute 10% of project cost for project cost up to Rs. 200 lakh. Hence, the SPV members have proposed to contribute the entire amount beyond Rs. 180 lakhs, taking their overall contribution to about 25% of the total project cost. The total contribution of SPV members will amount to Rs. 59.68 lakhs. Support from the State Government is envisaged for Rs. 180 Lakhs.

Details of the means of finance are provided in the table below:

Table 12: Means of Finance

Means of Finance		
S. No.	**Source of finance**	**Total Amount (Rs. In Lakh)**
1	Grant-in-aid (Govt. of Haryana)	180.00
2	Contribution of SPV	59.68
	Total	**239.68**

Detailed Means of Finance						
S. No.	Source of finance	Project cost up to Rs. 200 lakh		Project cost over Rs. 200 lakh		
		% Contribution	Amount (Rs. in lakh)	% Contribution	Amount (Rs. in lakh)	Total Amount (Rs. in lakh)
1	Grant-in-aid under State Mini Cluster Development Scheme (max 90% (including soft intervention)	90%	180.00	0%	0.00	180.00
2	Contribution of SPV	10%	20.00	100%	39.68	59.68
	Total	**100%**	**200.00**	**100%**	**39.68**	**239.68**

6.2.1 Capital

The contribution of the SPV members will be by way of capital contribution in the SPV registered as a Limited Liability Partnership. The total obligation of contribution would be Rs. 59.68 lakh contributed by the cluster SPV.

The extent of capital contribution by each member will be restricted to a maximum of 10% of total contribution to the capital of the LLP.

6.2.2 Grant-in-Aid

Grant-in-aid of Rs. 180 lakh is expected from Government of Haryana. The amount received by the way of grant under State Mini Cluster Development Scheme will only be utilized to procure plant and machinery for the project.

6.3 Expenditure Estimates

In this section, a detailed estimate of expenditure of the CFC has been conducted on eight hour single shift (i.e. 8 hour) operation basis. This has been estimated based upon extensive inputs by the cluster members and the prevalent rates of consumables, utilities and manpower in the cluster. This section considers annual cost of undertaking job work and expenditure estimates. The critical components related to expenditure comprise consumables, manpower, electricity and also expenditure on repair and maintenance of assets, insurance and administrative overheads.

Other elements comprise expenditures by the way of interest toward working capital loan, miscellaneous expenses and non-cash depreciation expenditure.

6.4 Consumables

Machines installed at the CFC shall require consumables during operations and completion of the job work. Consumables are critical components of project facilities and may be understood in terms of ink, diesel, oil, water, paper etc.

Table 13: Consumables required by the CFC

CONSUMABLES REQUIRED FOR MACHINES																			
S. No.	Machine Name	No. Of Machines	Particulars	Quantity per day	No. Of working days per month	Quantity per month	Rate	Total monthly Amt (Rs.)	Consumables required annually (Rs. In Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)	Amount (in Rs. Lakh)
										Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
										75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
A.	**Primary Machines**																		
Digital Printing																			
1	Digital Textile Printer-Konika Minolta Nassenger PRO 120	1	Ink (litre)	10	25	250	2000	500000	60.00	45.00	48.00	51.00	54.00	57.00	60.00	60.00	60.00	60.00	60.00
	CAD Software	1	Paper					5000	0.60	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60
Post Digital Printing																			
1	Washing Machine	1	Deisel (litre)	70	25	1750	60	105000	12.60	9.45	10.08	10.71	11.34	11.97	12.60	12.60	12.60	12.60	12.60
2	Hydro Extractor Machine	1	Water																
3	Drying Tumbler Machine	1	Water					1500	0.18	0.14	0.14	0.15	0.16	0.17	0.18	0.18	0.18	0.18	0.18
4	Industrial Steamer Machine	1	Water																
5	Hot Water Generator	1	Water																
6	Ironer	1	Detergent (Kg)					5000	0.60	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60
B.	**Secondary Machines**																		
1	Genset (85 KwA)	1	Deisel (litre)					20000	2.40	1.80	1.92	2.04	2.16	2.28	2.40	2.40	2.40	2.40	2.40
2	Effluent Treatment Plant	1	Oil, Grease, Hydraulic Oil					5000	0.60	0.45	0.48	0.51	0.54	0.57	0.60	0.60	0.60	0.60	0.60
	Total								76.98	57.74	61.58	65.43	69.28	73.13	76.98	76.98	76.98	76.98	76.98
	Consumables per month								6.42	4.81	5.13	5.45	5.77	6.09	6.42	6.42	6.42	6.42	6.42

6.4.1 Manpower Requirement

Another major expenditure head is the manpower. Facilities installed at CFC will require manpower to function effectively. The total manpower requirement for the project would be about 16 persons. The manpower required under project has been divided under two categories: Direct & Indirect. Direct manpower is required for operation of machines while indirect manpower is required for administrative purposes. The annual expenditure on salary component for direct manpower is estimated at Rs. 26.40 lakh and for indirect at Rs. 9.50 lakhs. The total expense on manpower is projected at Rs. 2.99 lakh per month or Rs. 35.90 lakh per annum.

The details of monthly and yearly expenses for manpower required for running the project is provided in table below:

Table 14: Expenditure Related to Salary (direct manpower)

DIRECT MANPOWER REQUIREMENT				
Category	No. of Manpower Required	Salary per month per person (Rs.)	Total Salary Per Month (Rs.)	Total salary & wages per Year (Rs. in lakh)
Supervisor	1	40,000.00	40,000.00	4.80
Operator	4	15,000.00	60,000.00	7.20
CAD Designer	1	30,000.00	30,000.00	3.60
Helper	4	9,000.00	36,000.00	4.32
Washing Master	1	25,000.00	25,000.00	3.00
Office Boy	1	9,000.00	9,000.00	1.08
	12	1,28,000.00	2,00,000.00	24.00
Add: Perquisites/Fringe Benefits @ 10%				2.40
Total				26.40

Table 15: Expenditure Related to Salary (indirect manpower – administrative and support staff)

INDIRECT MANPOWER REQUIREMENT				
Category	No. of Manpower Required	Salary per month per person (Rs.)	Total Salary Per Month (Rs.)	Total salary & wages per Year (Rs. in lakh)
Cluster Development Executive (CDE)	1	30,000.00	30,000.00	3.60
Accountant	1	18,000.00	18,000.00	2.16
Security Guard	2	12,000.00	24,000.00	2.88
	4	60,000.00	72,000.00	8.64
Add: Perquisites/Fringe Benefits @ 10%				0.86
Total				9.50

6.4.2 Utilities

The most important utilities required in the project is power supply. Proposed CFC requires power for operation of machinery as well as other supporting equipment for smooth operations. The total connected load requirement has been estimated at 62.00 kW. The table below depicts the machine and equipment wise power requirement in the CFC. The drawn power is conservatively assumed at 60% of the connected load in the case of operating facilities and shop floor.

Table 16: Machine & Equipment (facility) wise power requirement

POWER REQUIREMENT			
S. No.	**Machine & Equipment**	**Power Requirement (kW)/ Connected Load**	**Total power requirement (60% of drawn power) kWh**
1	Ink Jet Printing Machine Model MS-JP7	25.00	15.00
2	Hydro Extractor	2.00	1.20
3	Tumble Dryer	5.00	3.00
4	Winch Washer	10.00	6.00
5	Calendar Dryer	12.00	7.20
6	Effluent Treatment Plant	3.00	1.80
7	Administrative Facilities	5.00	3.00
	Total Connected load for CFC	**62.00**	**37.20**
	Buffer Connected Load (10% of Total Connected Load)	**6.20**	
	Total	**68.20**	

The power requirement for operation of core machinery and equipment and administrative facilities is 62 kW. The facility is heavily based on electricity for operations and will also require additional 10% connected load as a buffer to get the electricity connection, accordingly and the buffer connected load is 6.20 kW. The total connected load for the CFC is estimated to be 68.20 kW.

Fixed charges for connection of 68.2 kW @ Rs. 173 per kW equal Rs. 11,799/- per month and monthly consumption charges @ Rs. 8.25 per unit consumption for 7440 units amounts to Rs. 61,380/- per month. This has been calculated based on the prevalent rates of the power provider.

The table below presents the envisaged annual expenditure in terms of power related charges.

Table 17: Annual Expenditure Statement vis-à-vis Power Charges

POWER CHARGES AT VARIOUS CAPACITY UTILIZATION										
	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
Fixed	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42

Variable	5.52	5.89	6.26	6.63	7.00	7.37	7.37	7.37	7.37	7.37
Total	**6.94**	**7.31**	**7.68**	**8.04**	**8.41**	**8.78**	**8.78**	**8.78**	**8.78**	**8.78**
Per month	**0.58**	**0.61**	**0.64**	**0.67**	**0.70**	**0.73**	**0.73**	**0.73**	**0.73**	**0.73**

6.4.3 Annual Repairs & Maintenance Expenses

The annual repairs and maintenance expenses have been estimated to be Rs. 6.07 lakh. The details are presented in the table below:

Table 18: Annual Repairs and Maintenance Expenditure

ANNUAL REPAIR AND MAINTENANCE EXPENSES (Rs. In lakh)	
Repair & Maintenance of Building	0.50
Repair & Maintenance of Plant and Machineries @ 3%	6.07
Sub Total A	**6.57**

Insurance and miscellaneous Administrative Expenses

Insurance is a critical component of asset protection at the CFC. Insurance is computed on the basis of 0.5 percent on the fixed assets. Cost of insurance shall remain as a fixed cost. Miscellaneous administrative expenses are estimated at a lump-sum of Rs. 2.40 lakh per year. The details are presented in the table below:

Table 19 Insurance and Miscellaneous Administrative Expenses

OTHER EXPENSES (Rs. In lakh)	
Insurance Charges (Estimate @ 0.5% on fixed assets (such as buildings, civil works, and Plant & machinery, including related contingency expenses of approx. Rs. Lakh)	1.06
Miscellaneous Expenses (Stationery, communication, travelling, and other misc. overheads)	2.40
Sub Total B	**3.46**

6.5 Working Capital Requirements

Working capital has been calculated in terms of one month's operating expenses required for the CFC and 3 months' debtor collection period. The operating expenses include consumables, salaries, utilities & rent expenses. The details are presented in the table below:

Table 20 Working Capital Requirement

WORKING CAPITAL (Rs. In Lakh)											
Sr. No.	Particulars	Period	As per Capacity Utilisation								
			Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
			75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
1	Consumables	1 month	4.81	5.13	5.45	5.77	6.09	6.42	6.42	6.42	6.42	6.42
2	Utilities (Power)	1 month	0.58	0.61	0.64	0.67	0.70	0.73	0.73	0.73	0.73	0.73
3	Working Expenses (Manpower)	1 month	2.44	2.55	2.66	2.77	2.88	2.99	2.99	2.99	2.99	2.99
4	Rent	1 month	1.00	1.10	1.21	1.33	1.46	1.61	1.77	1.95	2.14	2.36
5	Sundry Debtors (Sales Value)	3 months	50.63	54.00	57.38	60.75	64.13	67.50	67.50	67.50	67.50	67.50
6	Working capital (Total expenses)		59.46	63.39	67.34	71.30	75.27	79.25	79.41	79.59	79.78	80.00
7	Working Capital Margin		15.46	19.39	23.34	27.30	31.27	35.25	35.41	35.59	35.78	36.00
8	Working Capital Loan		44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00
9	Interest on Working capital loan @11% p.a.		4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84
10	Working Capital Margin %age		26.00 %	30.59 %	34.66 %	38.29 %	41.54 %	44.48 %	44.59 %	44.71 %	44.85 %	45.00 %

The working capital requirement of the project for the one month of operation has been considered for consumables and expenses. The SPV will contribute the margin money for working capital and rest of working capital will be borrowed from local bank. While calculating the project cost, minimum 25% of working capital is shown as margin for working capital and the remaining will be borne by SPV as borrowings. The total working capital is estimated to be Rs. 59.46 lakh during the first year of operation (75% C.U.). Further, total working capital required at an operating capacity of 80% during the second year comes out to Rs. 63.39 lakh. The corresponding margin money for working

capital requirement at 75% and 80% capacity utilization in the first 2 years amounts to Rs. 15.46 lakh and Rs. 19.39 lakh respectively, and the corresponding loan is calculated at Rs. 44 lakhs.

6.6 Depreciation Estimates

Estimates of depreciation are non-cash expenditure and presented in this section on the basis of Written down Value (WDV) method. Accounting for depreciation would facilitate sustainability of operations in terms of developing a fund for replacement of assets. The relevant fund that is accumulated could facilitate the replacement of such assets toward the end of the envisaged asset life of 10 years. Depreciation of plant and machinery is considered at 15% a year (envisaged project life of 10 years prior to replacement of assets); depreciation of computers is considered at 60% per year, furniture at 10% per year, and miscellaneous fixed assets at 15% a year. The computation of depreciation as per WDV method is provided in the tables below.

Table 21: Depreciation based on WDV

DEPRECIATION (WRITTEN DOWN VALUE METHOD) (Rs. In lakh)										
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Land										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less : Depreciation	-	-	-	-	-	-	-	-	-	-
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Building and Civil work										
Opening Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Less: Depreciation @ 10%	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Closing Balance	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Plant & Machinery										
Opening Balance	212.29	180.45	153.38	130.37	110.82	94.20	80.07	68.06	57.85	49.17
Less: Depreciation @ 15%	31.84	27.07	23.01	19.56	16.62	14.13	12.01	10.21	8.68	7.38
Closing Balance	180.45	153.38	130.37	110.82	94.20	80.07	68.06	57.85	49.17	41.79
Computers										
Opening Balance	1.26	0.50	0.20	0.08	0.03	0.01	0.01	0.00	0.00	0.00
Less: Depreciation @ 60%	0.76	0.30	0.12	0.05	0.02	0.01	0.00	0.00	0.00	0.00
Closing Balance	0.50	0.20	0.08	0.03	0.01	0.01	0.00	0.00	0.00	0.00
Furniture										
Opening Balance	1.00	0.90	0.81	0.73	0.66	0.59	0.53	0.48	0.43	0.39

Less: Depreciation @ 10%	0.10	0.09	0.08	0.07	0.07	0.06	0.05	0.05	0.04	0.04
Closing Balance	0.90	0.81	0.73	0.66	0.59	0.53	0.48	0.43	0.39	0.35
Other Misc. Fixed Assets										
Opening Balance	0.60	0.51	0.46	0.41	0.37	0.33	0.30	0.27	0.24	0.22
Less: Depreciation @ 15%	0.09	0.05	0.05	0.04	0.04	0.03	0.03	0.03	0.02	0.02
Closing Balance	0.51	0.46	0.41	0.37	0.33	0.30	0.27	0.24	0.22	0.20
Total Depreciation	32.79	27.51	23.26	19.72	16.74	14.23	12.10	10.28	8.75	7.44
Depreciated value	182.36	154.85	131.60	111.88	95.13	80.90	68.81	58.52	49.78	42.34

6.7 Income/Revenue estimates

The CFC is expected to generate revenue by way of user charges that shall be levied based upon the volume of fabric that will be digitally printed. The user charges shall vary based upon the user i.e. - the SPV members and non SPV members. The user charges will be less for the SPV members as compared to non SPV members. Firms based outside Gurugram shall be charged a premium for availing the CFC services. The major income sources for the CFC are envisaged by the way of providing digital printing facilities- regular and specialized (both on fabric and garment).

The user charges have been estimated based upon the operational expenses of the CFC and the prevalent market rates in Gurugram. User charges for secondary machines have not been considered as a part of revenue. Estimation of user charges for availing services at CFC has been done on a conservative basis. An average user charge has been used, taking into account the demand for digital printing.

The relevance and appropriateness of user charges is also evident from the fact that the rates fixed help meet operating expenditures and provide sustainable replacement of assets. It is also envisaged that the CFC will generate enough income to sustain and grow, making it an absolutely viable project.

The estimated user charges are presented in table below:

Table 22: User Charges for Machinery

Machine	User Charge per job work (Rs. Per sq. m)	Output per day (sq. m)	Daily Job Work 1000 Sq. m. (Rs.)	Working days per month	Revenue per month (Rs. lakh)	Annual Revenue generation (in Rs. lakh)	Amount (in Rs. Lakh)									
							YR 1	YR 2	YR 3	YR 4	Yr 5	YR 6	YR 7	YR 8	YR 9	YR 10
							75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
Digital Printing Job Work	90	1000	90000	25	22.50	270.00	202.50	216.00	229.50	243.00	256.50	270.00	270.00	270.00	270.00	270.00
Total						**270.00**	**202.50**	**216.00**	**229.50**	**243.00**	**256.50**	**270.00**	**270.00**	**270.00**	**270.00**	**270.00**

6.8 Estimation of profitability: Income and Expenditure statement

The projection for income and expenditures of the CFC has been conducted for ten years. The projections have been undertaken based upon the income and expenditure heads mentioned in previous sections. The projected statements highlight income, expenses, profits earned, income tax and net profit etc. The details are presented in the table below:

The total gross revenue is estimated to be Rs. 202.50 lakhs per annum at an operating capacity of 75%. For projection purposes, operating capacity of 75% is considered during first year, 80% during next year and 100% capacity from 6th year onwards.

The income tax rates have been considered as per rates applicable to an LLP according to the Income Tax Act, 1961. Income tax has been considered at 30.90% per cent on taxable profit inclusive of all the tax components. The incidence of tax ranges from Rs. 15.05 lakhs in the first year to Rs. 30.45 lakhs in Year 10.

As evident from the table below, the project is financially viable. A cumulative surplus of about Rs. 588.67 lakh shall be earned by the SPV even after accounting for taxation and depreciation at the end of ten years. This surplus generated shall be used for further addition in the machinery or improvement and up-gradation of facilities. Additionally, the SPV intends to conduct a lot of other development activities in the cluster that shall be funded through the surplus earned at the CFC.

Table 23: Income and Expenditure Statement

PROFIT & LOSS ACCOUNT (Rs. In Lakh)										
Particulars	**Year 1**	**Year 2**	**Year 3**	**Year 4**	**Year 5**	**Year 6**	**Year 7**	**Year 8**	**Year 9**	**Year 10**
Number of working days	300	300	300	300	300	300	300	300	300	300
Number of shift	1	1	1	1	1	1	1	1	1	1
Capacity Utilization in %	**75%**	**80%**	**85%**	**90%**	**95%**	**100%**	**100%**	**100%**	**100%**	**100%**
A. Income										
(User/ Service Charge)	**202.50**	**216.00**	**229.50**	**243.00**	**256.50**	**270.00**	**270.00**	**270.00**	**270.00**	**270.00**
B. Cost of Production :										
1. Utilities Power (Fixed + Variable)	6.94	7.31	7.68	8.04	8.41	8.78	8.78	8.78	8.78	8.78
2. Direct labour and wages	19.80	21.12	22.44	23.76	25.08	26.40	26.40	26.40	26.40	26.40
3. Consumable	57.74	61.58	65.43	69.28	73.13	76.98	76.98	76.98	76.98	76.98
4. Repair and Maintenance	4.92	5.25	5.58	5.91	6.24	6.57	6.57	6.57	6.57	6.57
5. Depreciation	32.79	27.51	23.26	19.72	16.74	14.23	12.10	10.28	8.75	7.44
Total Cost of production	**122.19**	**122.78**	**124.39**	**126.71**	**129.61**	**132.96**	**130.82**	**129.01**	**127.47**	**126.16**
C. Administrative expenses :										
6. Manpower (Indirect)	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
7. Rent	12.00	13.20	14.52	15.97	17.57	19.33	21.26	23.38	25.72	28.30
8. Insurance	1.06	0.91	0.77	0.66	0.56	0.48	0.40	0.34	0.29	0.25
9. Misc Expense	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Total Administrative Expenses	**24.97**	**26.02**	**27.20**	**28.53**	**30.03**	**31.71**	**33.57**	**35.63**	**37.92**	**40.45**
D. Financial expenses :										
10. Interest on Working capital loan @ 11% per annum	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84
Total Financial Expenses	**4.84**	**4.84**	**4.84**	**4.84**	**4.84**	**4.84**	**4.84**	**4.84**	**4.84**	**4.84**
E. Total Expenses B+C+D	**151.99**	**153.63**	**156.42**	**160.09**	**164.48**	**169.50**	**169.23**	**169.48**	**170.23**	**171.45**
F. Profit A - E	**50.51**	**62.37**	**73.08**	**82.91**	**92.02**	**100.50**	**100.77**	**100.52**	**99.77**	**98.55**
G. P&P Expenses written off	1.81	1.81	1.81	1.81	1.81	0.00	0.00	0.00	0.00	0.00
H. Income before Tax (F-G)	**48.69**	**60.56**	**71.26**	**81.10**	**90.21**	**100.50**	**100.77**	**100.52**	**99.77**	**98.55**
I. Adjustment of Loss	-	-	-	-	-	-	-	-	-	-

J. Income Tax (@30.9% for LLP)	15.05	18.71	22.02	25.06	27.87	31.05	31.14	31.06	30.83	30.45
K. Net Profit /Loss for the year	33.65	41.84	49.24	56.04	62.33	69.44	69.63	69.46	68.94	68.10
L. Cumulative Surplus	33.65	75.49	124.73	180.77	243.10	312.55	382.18	451.64	520.58	588.67

6.9 Cash flow statement

Cash flow statement indicates the cash balance and the liquidity position of the project over the years. The table below presents the sources and disposal/uses of funds statement of the project.

Table 24: Cash Flow Statement

CASH FLOW STATEMENT (Rs in Lakh)											
Particulars	Construction Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
A. Source Funds :											
1. Cash Accruals (Net Profit + Interest Paid)		55.35	67.21	77.92	87.75	96.86	105.34	105.61	105.36	104.61	103.39
2. Increase in capital	59.68	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
3. Depreciation		32.79	27.51	23.26	19.72	16.74	14.23	12.10	10.28	8.75	7.44
4. Increase in WC Loan		44.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
5. Change in Expenses Payable		8.83	0.56	0.57	0.58	0.59	0.61	0.16	0.18	0.19	0.21
6. Increase in Grant-in-aid from GoH	180.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Total Sources of Funds	**239.68**	**140.97**	**95.28**	**101.74**	**108.05**	**114.20**	**120.18**	**117.87**	**115.82**	**113.55**	**111.04**
B. Use of Funds :											
1. P&P Expenses	9.07	-	-	-	-	-	-	-	-	-	-
2. Increase in fixed assets	215.15	-	-	-	-	-	-	-	-	-	-
3. Increase in other Assets	15.46	32.00	10.34	11.63	13.17	15.03	17.25	16.09	19.29	23.13	27.73
4. Increase in Sundry Debtors		50.63	3.38	3.38	3.38	3.38	3.38	0.00	0.00	0.00	0.00
5. Interest		4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84
6. Taxation		15.05	18.71	22.02	25.06	27.87	31.05	31.14	31.06	30.83	30.45
Total Use of Funds	**239.68**	**102.51**	**37.26**	**41.86**	**46.45**	**51.12**	**56.52**	**52.06**	**55.19**	**58.80**	**63.02**
C. Net Surplus (A -B)		**38.46**	**58.02**	**59.88**	**61.60**	**63.08**	**63.65**	**65.80**	**60.63**	**54.75**	**48.01**
D. Cumulative Surplus		**38.46**	**96.47**	**156.36**	**217.96**	**281.04**	**344.70**	**410.50**	**471.13**	**525.88**	**573.90**

The cash flow statement showcases the available net surplus for 10 years of the CFC operations. As most of the capital expenditure is being supported as grant under the State Mini Cluster Development Scheme, EPP 2015, therefore it does not have any negative effect on the Cash flow, in terms of interest, etc.

6.10 Projected Balance Sheets

The annual balance sheets for the CFC have been projected based upon estimates in the earlier sub-sections with regard to various current and fixed liabilities and also current and fixed assets. As evident from the projections, a considerable amount of reserves and surplus gets accumulated. These shall also be utilized for expansion of the CFC and undertaking other cluster development activities. Decision on deployment of reserves and surplus accumulated will be based on the performance of the project and requirements of cluster firms and members of the SPV. The projected balance sheets are provided in the table below:

Table 25: Balance Sheet

PROJECTED BALANCE SHEET (Rs in lakh)											
Particulars	At the end of impl. Period	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
1. Fixed Assets :											
Gross Block	215.15	215.15	182.36	154.85	131.60	111.88	95.13	80.90	68.81	58.52	49.78
Less : Depreciation (WDV)		32.79	27.51	23.26	19.72	16.74	14.23	12.10	10.28	8.75	7.44
Net Block	215.15	182.36	154.85	131.60	111.88	95.13	80.90	68.81	58.52	49.78	42.34
Total Fixed Assets (A)	**215.15**	**182.36**	**154.85**	**131.60**	**111.88**	**95.13**	**80.90**	**68.81**	**58.52**	**49.78**	**42.34**
2. Current Assets :											
Cash & bank Surplus (B.F)		38.46	96.47	156.36	217.96	281.04	344.70	410.50	471.13	525.88	573.90
Sundry Debtors		50.63	54.00	57.38	60.75	64.13	67.50	67.50	67.50	67.50	67.50
Margin Money for WC Loan	15.46	15.46	19.39	23.34	27.30	31.27	35.25	35.41	35.59	35.78	36.00
Other Current Assets		32.00	38.40	46.08	55.30	66.36	79.63	95.55	114.66	137.59	165.11
3. P&P Exp	9.07	7.25	5.44	3.63	1.81	0.00	0.00	0.00	0.00	0.00	0.00
Total current Assets (B)		**143.79**	**213.71**	**286.78**	**363.12**	**442.79**	**527.07**	**608.96**	**688.88**	**766.76**	**842.51**
Total Assets (A+B)	**239.68**	**326.16**	**368.56**	**418.37**	**474.99**	**537.92**	**607.97**	**677.77**	**747.40**	**816.54**	**884.85**
4. Current Liabilities :											
Working Capital Loan		44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00	44.00
Expenses Payable		8.83	9.39	9.96	10.55	11.14	11.75	11.91	12.09	12.28	12.50
Total Current Liabilities (C)		**52.83**	**53.39**	**53.96**	**54.55**	**55.14**	**55.75**	**55.91**	**56.09**	**56.28**	**56.50**
5. Fixed Liabilities											
Shareholders' Contribution	59.68	59.68	59.68	59.68	59.68	59.68	59.68	59.68	59.68	59.68	59.68

Grant from GoH	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00	180.00
Reserves and Surplus		33.65	75.49	124.73	180.77	243.10	312.55	382.18	451.64	520.58	588.67
Total Fixed Liabilities (D)	**239.68**	**273.32**	**315.17**	**364.41**	**420.45**	**482.78**	**552.23**	**621.86**	**691.31**	**760.25**	**828.35**
Total Liabilities (C+D)	**239.68**	**326.16**	**368.56**	**418.37**	**474.99**	**537.92**	**607.97**	**677.77**	**747.40**	**816.54**	**884.85**

6.11 Break-even analysis

The break-even (BE) estimates of the project indicate the level of activity at which the total revenues of the project equal the total costs. The Break even percentage indicates whether the fixed costs are being covered by the revenue generated from the operations, as well as profits are being generated after paying for such fixed costs. As per the calculations, the CFC achieves break even in the first year itself as no major interest costs are being incurred. Hence, BE estimates at level of activity relevant to the first year and subsequent years of activity are provided in the table below:

Table 26: Break Even Estimates

BREAKEVEN POINT AT VARIOUS C.U. (Rs. In Lakh)										
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10
Capacity Utilization	75%	80%	85%	90%	95%	100%	100%	100%	100%	100%
A. Total Earning by way of user charges	**202.50**	**216.00**	**229.50**	**243.00**	**256.50**	**270.00**	**270.00**	**270.00**	**270.00**	**270.00**
B. Variable costs										
Consumables	57.74	61.58	65.43	69.28	73.13	76.98	76.98	76.98	76.98	76.98
Utilities (Power-Variable Charges)	5.52	5.89	6.26	6.63	7.00	7.37	7.37	7.37	7.37	7.37
Interest on WC Loan	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84	4.84
Repair & Maintenance	4.92	5.25	5.58	5.91	6.24	6.57	6.57	6.57	6.57	6.57
Manpower (Direct)	19.80	21.12	22.44	23.76	25.08	26.40	26.40	26.40	26.40	26.40
Total Variable Cost (B)	**92.82**	**98.69**	**104.55**	**110.42**	**116.29**	**122.15**	**122.15**	**122.15**	**122.15**	**122.15**
C. Contribution (A-B)	**109.68**	**117.31**	**124.95**	**132.58**	**140.21**	**147.85**	**147.85**	**147.85**	**147.85**	**147.85**
D. Fixed Overheads (Cash)										
Manpower (Indirect)	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50	9.50
Utilities (Power-Fixed Charges)	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42	1.42
Rent	12.00	13.20	14.52	15.97	17.57	19.33	21.26	23.38	25.72	28.30
Insurance	1.06	0.91	0.77	0.66	0.56	0.48	0.40	0.34	0.29	0.25
Misc. Expenditure	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40	2.40
Sub-total (D)	**26.38**	**27.43**	**28.61**	**29.95**	**31.45**	**33.12**	**34.98**	**37.05**	**39.34**	**41.86**
E. Fixed Overheads (Non-cash)										
Depreciation	32.79	27.51	23.26	19.72	16.74	14.23	12.10	10.28	8.75	7.44

Preliminary & Pre-operative expenses written off	1.81	1.81	1.81	1.81	1.81	0.00	0.00	0.00	0.00	0.00
Sub-total (E)	**34.60**	**29.32**	**25.07**	**21.53**	**18.56**	**14.23**	**12.10**	**10.28**	**8.75**	**7.44**
F. Total Fixed Overheads (D+E)	**60.99**	**56.76**	**53.68**	**51.48**	**50.01**	**47.35**	**47.08**	**47.33**	**48.08**	**49.30**
Breakeven point (F/C)	**55.60%**	**48.38%**	**42.97%**	**38.83%**	**35.66%**	**32.03%**	**31.84%**	**32.01%**	**32.52%**	**33.35%**

Book break-even is achieved at 55.60% (at 75% operational capacity) and at 48.38% (at 80% operational capacity). The operations of the CFC are expected to break-even and realize profit from 1st year itself. Therefore, very low risk is involved in the project.

6.12 Feasibility analysis summary and sustainability indicators

A summary of the financial analysis in terms of key financial indicators such as Return on Capital Employed (ROCE), Net Present Value (NPV), Break Even Point (BEP) and the Internal Rate of Return (IRR) is presented in the table below. The indicators validate the financial viability and sustainability potential of the proposed project.

Table 27: Financial Analysis

FEASIBILITY		
S. No.	**Particulars**	**Estimates**
1	BEP (cash BEP at initial operating capacity of 75%)	55.60%
2	Av. ROCE (PAT/CE)	37.56%
3	Internal Rate of Return (IRR)	27.97%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) by GoH	NPV is positive and high (Rs.221.79 lacs) at a conservative project life of 10 years
5	Payback period	4 years & 4 months with Grant-in-aid assistance from GoH

The annual estimates in the context of ROCE are presented in the table below:

Table 28: Calculation of Return on Capital Employed

RETURN ON CAPITAL EMPLOYED (ROCE)											
Particulars	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	Year 7	Year 8	Year 9	Year 10	Average
Earnings Before Interest and Tax (EBIT)	53.53	65.40	76.10	85.94	95.05	105.34	105.61	105.36	104.61	103.39	90.03
Capital Employed (with grant)	239.68	239.68	239.68	239.68	239.68	239.68	239.68	239.68	239.68	239.68	239.68
ROCE = EBIT/Capital Employed											
ROCE (with Grant)	**22.33%**	**27.28%**	**31.75%**	**35.86%**	**39.66%**	**43.95%**	**44.06%**	**43.96%**	**43.65%**	**43.14%**	**37.56%**

The average value of ROCE (with grant-in-aid) is 37.56%. This indicates the high techno-economic viability of the project should the government contribute a significant portion of the project cost as grant. Capital employed considered includes the SPV contribution as well as the grant component to the project.

The Net Present Value is estimated at Rs. 221.79 at a discount rate of 10%. As reflected from the high values of NPV, it is positive at even 10%, the rate at which bank offers debt capital facility and even at higher discount rates. Project IRR is high at over 27.97% (at a conservative project life of 10 years). This substantiates the viability of the project.

6.13 Additional revenue sources

Additional sources of revenue shall also be explored by the SPV by offering procurement and marketing services in future to more enterprises. The SPV members are strong believers of the cluster concept and would like to explore the potential of undertaking cluster initiatives to improve the backward and forward linkages of the cluster units.

However, in order to ensure conservativeness in income estimates, in the initial years, the income earning possibilities of such revenues are not captured in this DPR.

6.14 Risk Analysis & Sensitivities

Risk in the project is relatively low in the context of the following:

- **Promoters are experienced**: Risk in the project is quite low given the strength and profile of the SPV members. They have considerable experience not only in the apparel manufacturing but also in undertaking cluster developmental initiatives.
- **Facility is pre-marketed:** Evidently, complete capacity of the core facility to be established in terms of various facilities may be easily availed by members of the SPV themselves, thus the facility would already have a captive market.
- **Sustainability indicators in terms of the strength of the SPV and the economics of the project:** Evidence of cooperative initiatives of SPV members as articulated in previous chapters; for instance, in terms of pursuing several joint efforts, registering the SPV and proceeding towards identifying the building on lease, and securing commitment from members, vis-à-vis progressively mobilizing necessary paid up capital, all reflect the strength of the SPV.

High economic viability indicators upon considering the benefits of grant-in-aid under the state mini cluster development scheme and Haryana EPP 2015 also serve as evidence of techno-economic viability and sustainability of the project. A sensitivity analysis has been carried out to ascertain the impact on the project, should there be any loss of revenue. This has been calculated assuming drop in user charges. Major financial parameters are still attractive. The important parameters related to the sensitivity analysis are presented in the table below:

Table 29: Sensitivity Analysis

SENSTIVITY ANALYSIS					
S. No.	**Particulars**	**Base case**	**With 5% decline in user charge**	**With 10% decline in user charge**	**With 15% decline in user charge**
1	BEP (cash BEP at operating capacity of 75%)	55.60%	61.26%	68.20%	76.90%
2	Internal Rate of Return (IRR)	27.97%	24.52%	20.84%	16.86%
3	Av. ROCE (PAT/CE)	37.56%	32.70%	27.73%	22.65%
4	Net Present Value (at a discount rate of 10 per cent) - incorporating viability gap funding (grant) GoH	221.79	172.64	123.49	74.34

Even assuming a fall in user charge, ROCE is favourable. From the above it is evident that the project is very viable even under (unlikely) risky environment circumstances.

6.15 Assumptions for financial calculations:

The financial statements and project profitability estimates in this DPR are based on the following assumptions:

1. The total project cost is pegged @ Rs. 239.68 lakh on the basis of estimates and quotations.

2. To finance the project, a total of Rs. 239.68 lakhs is required. The financing will consist of grant from Government of Haryana and contribution by SPV.

In the financial projections and analysis, year 2018 is the envisaged period of project implementation also involving installation of plant, machinery and other equipment. This period will commence from the date of final approval by the State Level Steering Committee under State Mini-Cluster Development Scheme. The financial projections thereafter are prepared for 10 years of operation starting 2019.

4. The Registered SPV will manage CFC, and these services are to be used by the SPV to member as well as non-member units. The common facility will benefit registered SPV as well as non-member firms who (in some cases) may not afford to contribute to necessary equity capital.

5. The CFC will operate for 25 days a month, that is, for 300 days a year on an eight hour single shift basis. Operation on single shift basis is assumed for purposes of projecting income estimates.

6. Capacity utilization is assumed at 75% in the first year; 80% for second year and 100% from 6th year and thereafter. Machines will operate for 1 shift (8 hours).

7. The workings with regard to expenses related to the project have been tabulated and categorized in terms of those related to consumables, manpower, electricity, and miscellaneous administrative expenditures.

8. Repairs and maintenance is provided @ 3% of plant and machinery cost at varying capacity utilization.

9. Insurance is provided @ 0.5% on fixed assets including building & civil works, machinery, contingency as fixed cost at all capacity utilization.

10. Electricity connection will not be required as it is already present in the building.

11. Fixed charges per kW of electric connection shall be charged @ Rs. 173 and variable charges @ Rs. 8.25 per unit consumed.

12. For calculation of Working capital limits, the debtors' collection period has been taken for 3 months.

13. One month expenses (rent, utilities, manpower & consumables) have been taken as expenses payable in the Balance Sheet.

13. Income estimates have been projected most conservatively. The prescribed user charges are competitive vis-à-vis charges for similar services in other regions.

14. Depreciation on fixed assets is calculated on Written Down Value (WDV) method for all purposes.

15. Provision for income tax has been made @ 30.9% including surcharge. This is the rate prescribed for LLP as per the Income Tax Act 1961.

16. Profitability estimates in terms of ROCE, NPV, and IRR are computed considering operating results for first 10 years of operation.

Project Implementation and Monitoring

7. Project Implementation and Monitoring

7.1 Envisaged Implementation Framework

1. **Time frame:** Project implementation is envisaged to involve a time-frame of about 7 months upon receipt of final approval of grant-in-aid assistance from the Government of Haryana under mini cluster scheme.

2. **User Base:** The facilities may be used by SPV members and non-members. However, the charges will vary. The SPV will also be open for new entrants subject to them subscribing to the shareholding of the SPV, and them being genuinely pro-active and interested in cluster initiatives. The designated partners of the SPV can decide on same or differential user charges for both members and non-members or based upon the volume of the output.

3. **Project implementation schedule:** The project implementation schedule envisaged over a period of 7 months involves several activities. These are elaborated upon in the table below:

Table 30: Project Implementation Schedule

Activity/Month	1	2	3	4	5	6	7
Collecting contribution from SPV members							
Receipt of final sanction from GoH							
Lease deed agreement of building in the name of SPV							
Refurbishment of building							
Formation of purchase committee							
Inviting E-tenders for purchase of machines							
Obtaining statutory clearances and approvals							
Purchase of machinery and equipment							
Installation and trial run of machinery and equipment							
Arrangement of working capital							
Monitoring of the project by designated partners							
Monitoring of the project by PMC							

Activity/Month	1	2	3	4	5	6	7
Commencement of operations of the facility							

4. **Contractual agreements/MoU with member units:** Agreements have been indicatively finalized in terms of utilization of assets in respect of shareholders.
   A total of 11units are participating in the SPV and all these units have agreed to contribute towards the capital contribution of the SPV. The utilization of the common facility will be in line with the proposed shareholding pattern. The consent letter wherein the member units agree for payments of 10% share of cost of CFC will be submitted in due course of and as per final approval from Government of Haryana.

5. **Registration of the LLP:** LLP Registration is indicative of the management and decision making structure of the SPV. All the members of SPV have paid an advance and are members of the Registered Private Entity. Few other units are also willing to be members of the SPV and once the CFC is approved and sanctioned from government of Haryana, many more members will be interested to subscribe to the shares of the SPV.

6. **Availability of Building& Status of Acquisitions**: A building will be leased by the SPV for the proposed CFC in Gurugram district. A floor of a building of XXX square feet has already been identified by the SPV and a letter establishing the proof of availability of the building has been acquired and attached in Annexure 5.

7. **Availability of Requisite Clearances:** A building with all required clearances will be leased by the SPV. Electricity is already available in the area and the building is connected to the grid. The other required clearances (environment, labor etc.) shall be obtained in due course.

8. **O & M Plan:** The revenue stream for O&M is dependent on realization of user charges from the SPV members and other users/MSMEs in the case of various facilities. As detailed in the financial section, the cash incomes are sufficient to meet operating expenditures, overheads as well as depreciation for sustainable replacement of assets. The SPV will also have to keep a track of maintenance of assets through collection of user charges from the members/ users.

7.2 Monitoring Mechanism

As mentioned in the implementation schedule, the following key activities shall be conducted during establishment of the CFC:

- Refurbishment of building
- Purchase of machinery & commissioning
- Trial production
- Commercial production

The successful implementation of above activities will depend on the following aspects:

- Implementation of above within the time frame.
- Supervising and overseeing the implementation of the proposals and fine tuning and advocating more measures if needed, depending on the site conditions.
- Project level monitoring indicators to evaluate the implementation of the CFC proposal at recommended intervals.
- Suitable purchase mechanisms for proposed plant & machinery.
- Periodical reporting of the status of implementation and monitoring of the results of key performance indicators, and
- Constant evaluation of the measures implemented based on the data available from project level monitoring, status reports and providing directions accordingly.

It is proposed to constitute a governance mechanism in the form of **Cluster Development Co-ordination Committee (CDCC) under the chairmanship of Director of Industries, Government of Haryana** to oversee all cluster development projects in Haryana. The CDCC will look after the project under State Mini Cluster Development Scheme to be implemented under the state's Enterprise Promotion Policy 2015.

The committee may operate under the overall monitoring of the State Level Steering Committee (SLSC). Other key stakeholders such as representatives of cluster SPV, related government departments, support institutions, cluster level industry associations and consultants may be inducted as members under the committee.

The members may comprise the following:

i. Director, Industries and Commerce, Government of Haryana (Chairman)
ii. Concerned Joint Director, Department of Industries and Commerce
iii. GM, DIC Gurugram
iv. HSIIDC state officer
v. HFC general Manager
vi. President of related industry association
vii. Partners of related SPV
viii. EY Cluster Development Expert under MSME project

The meeting of CDCC may be held on a quarterly basis to review performance of the clusters. The CDCC will guide monitoring and implementation of the project.

In addition, for implementing the CFC creation for Gurugram Apparel Manufacturing Cluster, a Project Management Committee (PMC) comprising the GM, DIC, Gurugram, and representatives of SPV, and EY experts shall be constituted to directly oversee effective monitoring and implementation.

The project will be implemented through SPV and PMC will report progress of implementation to the CDCC as well as State Level Steering Committee and DIC Gurugram.

Conclusion


celebrate
WORLD
GROWTH
TAKE
Entrepreneur
passionate
GALA
options
IDEA
WORLD

8. Conclusion

There is a high demand for apparel manufacturing with attractive digital printing in both domestic and international markets. Gurugram, as one of the leading apparels hub of the country, is a leading market for digitally printed apparels, supplying to some of the leading global brands such as Walmart, Mango, ITC, Arvind Textiles, etc. However, the 450 apparel manufacturing MSEs in Gurugram, are currently facing a major technology handicap in terms of the absence of digital printing facility that is conducive for all fabrics. This has resulted in units having to approach private service providers, manifesting further into higher costs of manufacturing for the units, thereby reducing their competitiveness. This challenge can be overcome by setting up a CFC with these facilities, which can be availed at lower costs. The micro and small garment units of Gurugam are dependent on external service providers for availing digital printing services, as a result of which they often face increased costs and production inefficiencies. Job-work providers often do not accept low-volume orders from SMEs, or charge high prices for this. SMEs are not priority customers for the job-work providers, and thus they often delay MSMEs orders if they receive bulk orders from larger players. As a result SMEs are unable to compete with other domestic and international players.

Against this backdrop, the apparel manufacturing units in Gurugram require support for setting up digital printing facility. This will reduce their costs, increase efficiency and enable them to be more competitive in the market. Due to this, the following have been proposed in the CFC as primary machinery:

- Digital Printing Facility-
  - High speed digital textile printing machine
  - Computer Aided Design Software (CAD)
  - Post digital printing machines

The total project cost (including plant/machinery and building) is estimated to be Rs. 239.68 lakhs. The project shall be implemented by the SPV 'NextGen Digitex LLP' which has been constituted by the cluster firms. The SPV has proactively undertaken a number of initiatives for capacity building and knowledge enhancement of the cluster. A number of capacity building programs and exposure visits have been organised by the SPV for the benefit for its members.

The CFC will be set up with support from DIC and the state government (Department of Industries) under a PPP mode. The building for the project has already been identified by the SPV and shall be acquired on a lease basis upon in final approval by State Government. The state industry department is envisaged to provide grant for setting up of the modern machines under the State Mini Cluster Development Scheme, Haryana EPP 2015. The SPV members have proposed to contribute Rs. 59.68 lakhs of the project cost. Support from Mini Cluster Development Scheme of the State Government of Haryana is envisaged for Rs. 180.00 lakh. Working capital requirement for the project will be provided by the preferred bank, if required. The project is financially viable and is expected to generate enough revenue to ensure its sustainability.

Annexures


celebrate
WORLD
GROWTH
TAKER
passionate
GALA
Entrepreneur
IDEA
WORLD

9. Annexures

1. DSR Approval Letter from Department of Industries & Commerce, Government of Haryana

From

The Director of Industries & Commerce, Haryana.

To,

M/s Ernst & Young LLP,
SCO-166-167, 1st Floor, Sector 9-C, Madhya Marg,
Chandigarh.
Email:- upinder.dhingra@in.ey.com

Memo No. Mini Cluster/Apparel/Gurugram/24331-A
Dated:- 20.12.2017

Subject: **Approval of DSR and directions for preparation of Detailed Project Report of Gurugram Apparel Manufacturing Cluster**

Kindly refer to the subject cited above.

It is informed that the Diagnostic Study Report (DSR) of Gurugram Apparel Manufacturing cluster has been approved by Director of Industries and Commerce under the state mini cluster development scheme.

As highlighted during the DSR validation on 01st December 2017, the SPV was directed to replace one unit namely Super Shine Laundry with another unit which is engaged in the similar product manufacturing so that all SPV members can use the common facility being proposed.

EY LLP is therefore directed to initiate steps for preparation of Detailed Project Report (DPR) of the cluster.

(R.C Dahra)
Consultant (Clusters)
19/12/17
For Director of Industries & Commerce, Haryana

Endst. No. Mini Cluster/Apparel/Gurugram/ Dated:-

A copy of the above is forwarded to

1. SPV, Gurugram Apparel Manufacturing Cluster for Information. They are directed to provide the requisite information desired by EY so as to enable them to prepare the DPR at the earliest. Address: Geo-clothing Pvt. Ltd Mr. Ram Kumar Sharma, 256, Udyog Vihar Phase-6, Sector 37, Gurugram. (geoclothing2@gmail.com)
2. Joint Director, DIC, Gurugram (jddicgurgaon@gmail.com)

(R.C Dahra)
Consultant (Clusters)
For Director of Industries & Commerce, Haryana

2. MoM of DPR Validation

3. LLP Registration Certificate

4. Verification of units by DIC, Gurugram

5. Building Availability Proof

6. Obligation to Contribution Pattern

7. Machinery Quotations

APSOM TECHNOLOGIES (INDIA) PVT. LTD.
12/36, Site-IV, Sahibabad Industrial Area,
Ghaziabad, U.P. 201 010
Tel.:+91-120-4261170

QUOTATION

Date :- 31.10.2017
Ref.:- Qtn/Print/GC/01

To,
M/S GEO CLOTHING PVT LTD
256 UDHYOG VIHAR
SEC-37 GURGAON
HARYANA

KIND ATTN.:- Mr. R.K. SHARMA

Dear Sir,

We are pleased to draw Quotation as per terms and conditions set forth below,

Description	QTY	UNIT PRICE	AMOUNT
Digital Textile Printer Konica Minolta Nassenger PRO 120 (9 Heads - 9 Colors, 1.85mtrs. Printing width) with Inedit RIP Software	1	US$103000 (CIF)	US$103000 (CIF)
TOTAL			US$103000 (CIF)

USD ONE LAKH THREE THOUSAND ONLY.

* The above sale would be done on High Seas Sale.
* Port of Final Destination: ICD Patparganj,Delhi,India
* Customs Duty, Clearing Charges, Loading, Unloading, any entry tax or Octroi or any other incidental expenses as applicable would be arranged by buyer.
*Tax : IGST@18% (As per applicable)
* Payment: 20% as an advance non refundable, 60% when machine ready to be shipped, and balance 20% at the time of High Sea Sale Agreement.
* Dollar Rate will be applicable on the date of payments of 60 %
* free ink 45ltr +5ltr CS.
* Warranty: On machine & print head warranty is one year from the date of Installation of macine . second year extended warranty on machine only with parts provided the customer is using ink and cleaning liquid supplied by Apsom technologies (I) Pvt Ltd .
* Delivery: 8 - 10 weeks after receiving PO and advance.
* Validity: This Quotation is valid for 4 weeks from the date of issue.
* Bank Detail: company name :- Apsom Technologies (I) Pvt. Ltd.
Bank name :- Axis Bank Ltd.
Account No. :- 915020040412772
IFSC CODE :- UTIB0000020
Branch Address :- Laxmi ind. Estate, Andheri (west) Mumbai

For **Apsom Technologies (India) Pvt. Ltd.,**

Authorized Signatory

APSOM TECHNOLOGIES (INDIA) PVT. LTD.

Head Office:
Unit 202, Shri Sai Corporate Park Premises CSL, Plot No. B/8, Mahakali Mandir Road, Off. Link Road, Opp. Laxmi Nagar Ind. Estate, Goregaon (West), Mumbai 400 104
Tel.: +91-22-2878 7804
www.apsomtechnologies.com
info@apsomtechnologies.com

FABCARE

FABCARE GARMENTS & TEXTILE MACHINERY (P) LTD

Dated: 22nd December 2017
Ref.: FE/SAL/GURGAON/GEOCLOTHING/QUOTE/I

M/s Geo Clothing Pvt. Ltd.
256, Udyog Vihar Phase-VI
Khandsa, Sec - 37
Gurgaon 122001

FABCARE™
Fabric care ... at its best

Address:
90/4, 90/5 & 90/6, Road No. # 7
Industrial Area Mundka South, Delhi-110041
Telephone # 011-64646634,, 38
GSTIN - 07AAACF7934R1ZZ

E-Mail- geoclothing2@gmail.com
Mobile # +91 98181 83979
Kind Attention:- Mr Ram Sharma
fabcare@vsnl.com, sales@fabcare.com

Subject : Post Process Equipment

QUOTATION

ITEM NO.	MACHINE IMAGE	DESCRIPTION	QTY	Unit Price Rs.	Amount Rs.
1		**Fabcare Washing Machine Model WS 30**, 30 Kg. cap. per charge. Steam heated, front loading with fully die pressed door. Inner basket, outer drum all Stainless Steel AISI 304 quality. *** Front Side of the Frame Stainless Steel.** **HSN CODE 8450**	1	205,000	205,000
2		**Fabcare Hydro Extractor Machine Model HDS 25**, 25 Kg. cap. per charge. Inner basket and Outer drum Stainless Steel. **HSN CODE 8451**	1	105,000	105,000
3		**Fabcare Drying Tumbler Machine Model DTS 30**, 30 Kg. cap. per charge. Steam Heated, Front loading type. Inner basket Stainless Steel. Fully die pressed door. **HSN CODE 8451**	1	140,000	140,000
4		**Fabcare Industrial Steamer Machine Model FPS 200, 200 Mtr** suitable for steaming after Digital Printing of Fabric, complete in Stainless Steel, Pneumatic Operated Steam Valve, Control Panel etc. **HSN CODE 8451**	1	340,000	340,000
5		**Fabcare Hot Water Generator Model HWD 120,** **120 Ltrs. cap. with diesel tank etc.** (Note: water softener depends upon the water analysis report, rates excluded in prices) **HSN CODE 8402**	1	210,000	210,000
				Total	**1,000,000**

TERMS & CONDITIONS

Validity	15 Days
G.S.T	@ 28 % extra on Item No 1 (But as applicable at the time of dispatch from Works) @ 18 % extra on Item No 2 - 5 (But as applicable at the time of dispatch from Works)
Transit Insurance	1% extra, if required
Delivery	6 - 8 Weeks
Payment Terms	40% as advance and balance against our Proforma Invoice, before delivery.
Freight	To pay at actual.
Packing	Inclusive only PVC Sheet Wrapped. **OR** **Wooden Packing @ 7.5 % extra.**
Unloading / Placement	Unloading of machines and its placement up to the installation site is under Customer's Scope.
Warranty	12 months from the date of supply against any manufacturing defect.*
Installation	For Delhi & NCR:- Only supervision, without any labour and material. For Outstation:- To & Fro fare and Rs. 3,000/- per day to be provided by you to our service engineer. Only supervision, without any labour and material.
Road Permit	Statutory Forms/Road Permit forms must be released against Proforma Invoice, Wherever Applicable.

***Any Bought out components defect doesn't mean manufacturing defect in the machine, however we shall arrange its repair/replacement on urgent basis.**
***Any type of defect found due to malfunctioning or machine operated/maintained by untrained staff at your end, the machine becomes out of warranty automatically from that particular date.**

For Fabcare Garments & Textile Machinery Pvt. Ltd.

Neelesh Singh
8860630733

brother at your side primus PEGASUS KM

FABCARE

FABCARE GARMENTS & TEXTILE MACHINERY (P) LTD

Dated: 22nd December 2017
Ref.: FE/SAL/GURGAON/GEOCLOTHING/QUOTE/II

M/s Geo Clothing Pvt. Ltd.
256, Udyog Vihar Phase-VI
Khandsa, Sec - 37
Gurgaon 122001

E-Mail- geoclothing2@gmail.com
Mobile # +91 98181 83979
Kind Attention:- Mr Ram Sharma

FABCARE™
Fabric care ... at its best

Address:
90/4, 90/5 & 90/6, Road No. # 7
Industrial Area Mundka South, Delhi-110041
Telephone # 011-64646634,, 38
GSTIN - 07AAACF7934R1ZZ

fabcare@vsnl.com, sales@fabcare.com

Subject : Quote for Flat Work Ironer

QUOTATION

ITEM NO.	MACHINE IMAGE	DESCRIPTION	QTY	Unit Price Rs.	Amount Rs.
1		**Fabcare Flat Work Ironer Machine Model FIS 14 (Chest Heated) Single Roller, Steam heated** with air suspended ironing chest. **(Without air compressor).** **Size of the roller 14" dia X 72" length.** **HSN CODE 8451**	1	440,000	440,000
		OR			
		**Primus Cylinder Heated Ironer** **Model I 33-160, Electric Heated.** **Size of the roller 12" dia X 66" length.**	1	340,000	340,000

TERMS & CONDITIONS

Validity	15 Days
G.S.T	@ 18 % extra (But as applicable at the time of dispatch from Works)
Transit Insurance	1% extra, if required
Delivery	6 - 8 Weeks
Payment Terms	40% as advance and balance against our Proforma Invoice, before delivery.
Freight	To pay at actual.
Packing	Inclusive only PVC Sheet Wrapped. **OR** **Wooden Packing @ 7.5 % extra.**
Unloading / Placement	Unloading of machines and its placement up to the installation site is under Customer's Scope.
Warranty	12 months from the date of supply against any manufacturing defect.*
Installation	For Delhi & NCR:- Only supervision, without any labour and material. For Outstation:- To & Fro fare and Rs. 3,000/- per day to be provided by you to our service engineer. Only supervision, without any labour and material.
Road Permit	Statutory Forms/Road Permit forms must be released against Proforma Invoice, Wherever Applicable.

***Any Bought out components defect doesn't mean manufacturing defect in the machine, however we shall arrange its repair/replacement on urgent basis.**
***Any type of defect found due to malfunctioning or machine operated/maintained by untrained staff at your end, the machine becomes out of warranty automatically from that particular date.**

For Fabcare Garments & Textile Machinery Pvt. Ltd.

Neelesh Singh
8860630733

brother at your side primus laundry equipment PEGASUS KM

sudhir
Powering the Nation

Ref: SPL/J/RS/211310
Date- 13th Dec, 2017

M/s Sahana Fashions
486, Sector-37
Gurgaon

Kind Attn: Mr. Ashok Kumar 9911529880

Subject: Our offer for 62.5/82.5 KVA DG Set

Dear Sir,

Thank you very much for your valued enquiry.

We would like to inform you that we also offer the following Power distribution products & services and look forward to working with you on your projects.

- **Transformers-** Oil Type - upto 20MVA , 66KV
  VPI Dry Type - upto 7.5MVA, 11KV
  Cast Resin Dry Type - upto 10 MVA, 33KV
- **Package Substations** – Upto 2000 KVA, Class 11 KV with Oil & Dry Transformer
- **LT Switchboards**
- **HT Switchboards** - Upto 33KV
- **Electrical Contracting (EPC)**

We are pleased to enclose our offer for your requirement.

Brief Company Profile	:	Annexure I
Price Schedule	:	Annexure II
Commercial Terms & conditions	:	Annexure III
Technical Specifications	:	Annexure IV

Hope you will find the offer in line with your requirement and would be happy to provide you with any clarification – please feel free to contact us.

Thanking you once again, looking forward to receive your valued enquiries for our Power Distribution Products.

Yours Sincerely,
For **Sudhir Power Ltd**

Rajeev Sharma
Marketing
9717699261

Our offices

Ahmedabad
2nd Floor, Shivalik Ishaan
Near CN Vidhyalaya,
Ambawadi,
Ahmedabad - 380 015
Tel: + 91 79 6608 3800
Fax: + 91 79 6608 3900

Bengaluru
"UB City", Canberra Block
12th & 13th floor
No.24, Vittal Mallya Road
Bengaluru - 560 001
Tel: + 91 80 4027 5000,
+ 91 80 6727 5000
Fax: + 91 80 2210 6000
Fax: + 91 80 2224 0695

Chandigarh
1st Floor, SCO: 166-167
Ernst & Young Pvt. Ltd.
Sector 9-C, Madhya Marg,
Chandigarh, Punjab 160009
Tel: +91 172 6717800
Fax: +91 172 6717888

Chennai
TPL House, 2nd floor
No 3, Cenotaph Road
Teynampet
Chennai - 600 018
Tel: + 91 44 4219 4400
+ 91 44 6632 8400
Fax: + 91 44 2431 1450

Hyderabad
205, 2nd floor
Ashoka Bhoopal Chambers
Sardar Patel Road
Secunderabad - 500 003
Tel: + 91 40 6627 4000
Fax: + 91 40 2789 8851

Oval Office, 18, iLabs Centre,
Hitech City, Madhapur,
Hyderabad – 500081
Tel: +91 40 6736 2000
Fax: +91 40 6736 2200

Kochi
9th Floor, Abad Nucleus
NH-49, Maradu PO
Kochi, Kerala 682304, India
Tel: + 91 484-3044000
Fax: + 91 484 2705393

Kolkata
22, Camac Street
Block 'C', 3rd floor
Kolkata - 700 016
Tel: + 91 33 6615 3400
Fax: + 91 33 2281 7750

Mumbai
6th floor & 18th floor
Express Towers
Nariman Point
Mumbai - 400 021
Tel: + 91 22 6657 9200 (6th floor)
+ 91 22 6665 5000 (18th floor)
Fax: + 91 22 22876401 (6th floor)
+ 91 22 2282 6000 (18th floor)

Block B-2, 5th Floor,
Nirlon Knowledge Park,
Off Western Express Highway,
Goregaon (E), Mumbai – 400 063
Tel: +91 22 6749 8000
Fax: +91 22 6749 8200

15th Floor, The Ruby, 29,
Senapati Bapat Marg, Dadar (W), Mumbai
- 400 028, India
Tel: +91 22 6192 000

NCR
Golf View Corporate Tower – B
Near DLF Golf Course
Sector 42
Gurgaon – 122002
Tel: + 91 124 464 4000
Fax: + 91 124 464 4050

6th floor, HT House
18-20 Kasturba Gandhi Marg
New Delhi - 110 001
Tel: + 91 11 4363 3000
Fax: + 91 11 4363 3200

4th and 5th Floor, Plot No. 2B, Tower 2,
Sector 126, NOIDA – 201 304
Gautam Budh Nagar, UP, India
Tel: +91 120 671 7000
Fax: _91 120 671 7171

Pune
C-401, 4th floor
Panchshil Tech Park
Yerwada (Near Don Bosco School)
Pune - 411 006
Tel: + 91 20 6603 6000
Fax: + 91 20 6601 5900

Ernst & Young LLP

Assurance | Tax | Transactions | Advisory

About EY
EY is a global leader in assurance, tax, transaction and advisory services. The insights and quality services we deliver help build trust and confidence in the capital markets and in economies the world over. We develop outstanding leaders who team to deliver on our promises to all of our stakeholders. In so doing, we play a critical role in building a better working world for our people, for our clients and for our communities.

EY refers to the global organization, and may refer to one or more, of the member firms of Ernst & Young Global limited, each of which is a separate legal entity. Ernst & Young Global Limited, a UK company limited by guarantee, does not provide services to clients. For more information about our organization, please visit ey.com.

Ernst & Young LLP is one of the Indian client serving member firms of EYGM Limited. For more information about our organization, please visit
www.ey.com/in.

Ernst & Young LLP is a Limited Liability Partnership, registered under the
Limited Liability Partnership Act, 2008 in India, having its registered office at 22 Camac Street, 3rd Floor, Block C, Kolkata - 700016

ED 0515

Artwork by: JG