

KHADI & VILLAGE INDUSTRY : A CASE STUDY OF KHADI INSTITUTIONS IN INDIA

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ABSTRACT

Khadi constitutes an important segment of the textile sector. Khadi has been defined as any cloth woven on handlooms in India from cotton, silk or woollen yarn handspun in India or from a mixture of any two or all of such yarns. The main objectives of the study are to assess the employment generation potential of the Khadi institutions. Secondly, the study focuses on identification of problems faced by the selected institutions. Data presented related to the period 2003-08, and projection of production and requirement of spinners and weavers by 2012. The study also collected data on all khadi institutions and assessed their capabilities, projection of their requirement in terms of spinning and weaving infrastructure, upgradation of skills of artisans and supervisory workers. Totally, 200 khadi institutions were identified. All the A+ & A category institutions were surveyed. The paper focuses on employment generation of Khadi sector during study period and projections for 2012.

Introduction

Khadi constitutes an important segment of the textile sector. Khadi has been defined as any cloth woven on handlooms in India from cotton, silk or woollen yarn handspun in India or from a mixture of any two or all of such yarns. Due to the artistic nature of khadi products and with sustained efforts, good demand of khadi products can be created in the international market. KVIC (Khadi and Village Industries Commission) has been creating employment opportunities for spinners, weavers, and other allied artisans. A large number of women artisans are covered in the spinning segment. Khadi activities are

supported by 30 State Khadi & Village Industry Boards (KVIBS), 2000 khadi institutions affiliated to KVIC and State KVIBs, 7050 sales outlets of khadi bhandars / bhawans and an extensive network of 250 training centres of KVIC / state KVIBs spread throughout the country. Khadi products, being environmental and user-friendly, are ideal for the present day market both within the country and outside.

Khadi has the unique property of keeping the wearer warm in winter as well as cool in summer season. This fabric on washing is more enhanced, thus, the more you wash it, better the look. Khadi easily lasts years together, at least for 4-5 years. Very attractive

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and designer apparel can also be made from doing handwork on the khadi garments. The weaving of khadi is preceded by the spinning of the thread on the charkha after which it goes on to the robbin winder, warper, sizer, and finally the weaver. The khadi board organises spinning while weaving is done by the weavers (mostly men) at their home in an individual capacity. Spinning is mostly done by the women in villages. During spinning of khadi, the threads are interwoven in such a manner that it provides passage of air circulation in the fabric.

Among all types of fibres i.e, cotton, silk and woollen, cotton khadi is more popular in both domestic and export markets. Cotton khadi is required to be starched so that it does not get easily crumpled. It comes in many colours and is not harmful to the skin as synthetic fabrics. This cotton khadi is very comforting in summer season as ample amount of air ventilation is there; it has the capacity to absorb moisture. Therefore, it easily soaks the sweat, and keeps the wearer cool and dry. Cotton khadi comes in plain as well as in printed fabrics. The most common outfit made from khadi is the 'Kurta'. Many types of apparel are made from khadi like sarees, salwar suits, fabric yarns, western tops, shirts, trousers, skirts, handkerchief, etc. All are having export demand potential. It is a very durable fabric. The khadi wearer gets a royal and distinguishable look due to its historic significance and style. It symbolises luxury and uniqueness.

In silk-khadi, the ratio of cotton khadi and silk fabric is 50:50. This fabric requires dry cleaning. It shrinks by about 3 per cent after the first wash. It is quite an expensive fabric. Silk-khadi provides a royal and rich look. The various types of apparels made from khadi silk are salwar kameez, kurta pajama, sarees, dupattas, shirts, vest and jackets. Apparels like kurta, jacket, saree blouses require lining to be given to ensure its longevity. Previously,

khadi was dyed in earthy colour tones, and was used to make traditional garments; but, now, designers are experimenting by dyeing khadi with striking colours like limegreen, violet, baby pink, turquoise blue, carpets, etc. Stylish garments like mini skirts, halter neck tops, racer tops, tunics, etc. are made from khadi. Woollen khadi products are also famous for its aesthetic appearance at the same time keeping the body warm. The most common outfit made from woollen khadi is the 'Kurta'. Many types of apparel are made from khadi like sarees, salwar suits, fabric yarns, western tops, shirts, trousers, skirts, carpets, etc.

History of Khadi Dates Back to Freedom Movement

The Father of the Nation, Mahatma Gandhi, urged the people of India to wear khadi garments. It was not only a call to create self-reliance but also a call to wear something that could demonstrate the unity of India. Khadi was given an important status by Gandhiji after his return from South Africa. While in search of the Charkha, Gandhiji felt that for a nation to turn to mass production, it had to return to indigenously produced goods. Most of the khadi cloth is of pure white (bleached or unbleached), and most of the people wear them based on their "ideology". Khadi has an extremely important connection with Indian freedom movement, and has become virtually symbolic of the struggle for freedom.

Alexander the Great, when he invaded the country in 327 BC, was dazzled by the art of fabric making and printing, as also was Marco polo, the Venetian traveller. It was in 1921 that Gandhiji launched the movement of 'spin your own cloth and buy hand spun cloth', which gained momentum making khadi, the fabric of the freedom struggle. In 1953 when the Khadi and Village Industries Board was established, it had only 156 registered institutions. Today every village, either remote or small, has its own khadi

institution. Initially weaving of khadi was rather difficult, as it was impossible to weave a full length of cotton with the uneven khadi thread. Today the range of khadi products is unlimited from garments to household linen to furnishing, etc.

Fashion in Indian clothing dates back to ancient times, when the Aryan's in the Vedic period produced their own cloth. In fact khadi had a most religious role in marriages when brides in India were presented with a khadi charkha in their wedding trousseaus to encourage spinning of the yarn. The current situation is that the demand is more than the supply. Earlier the type of khadi available was khadi cotton, which had very coarse texture and feel. However, many varieties of khadi like khadi silk, khadi wool and khadi cotton are available now, which makes it a fashionable fabric. In order to change with the times and to compete with other sectors, the KVIC/ khadi institutions have made necessary

improvements in the spinning wheel with their own research. The salient features of new technology are to enhance production capacity and to increase the employment potential. The institutions have developed six spindle, eight spindle, ten spindle and 24-spindle spinning wheel and that are hand-operated.

Performance of Khadi Sector

The annual production value of khadi sector increased from ₹ 453.00 crore in 2003-04 to ₹ 491.5 crore in 2006-07, while sales increased from ₹ 587 crore to ₹ 663.2 crore during the same period, compound annual growth rate (CAGR) for production marks out to 2.7 per cent and for sales 4.1 per cent. On the other hand, employment increased marginally as employment elasticity to production is 0.19 i.e., for a one per cent increase in production, there is only 0.19 per cent increase in employment (Table 1).

Table 1 : Performance of Khadi Sector (2003-07)

S.No.	Details	2003-04	2004-05	2005-06	2006-07	Projections for March 2012 assuming 9% growth rate per annum
1.	Production (₹ crore)	453.5	461.5	467	491.5	688.2
2.	Sales (₹ crore)	587.1	617.8	627	663.2	928.5
3.	Employment (lakh persons)	8.6	8.6	8.7	8.8	12.4
4.	Earnings (₹ crore)	253.8	258.3	260.2	283.2	396.4
5.	Production (₹ crore)	5267.1	5341.9	5380	5560	5560.2
6.	Sales (₹)/employee	6818.2	7150.9	7224	7502	7502.1
7.	Earnings (₹)/employee	2947.9	2989.7	2997	3203	3203.2

Source : KVIC Reports-various issues.

Table 2 reveals that in 2006-07, the share of cotton yarn was about 73 per cent of total khadi yarn production followed by woollen yarn (18 per cent) and silk yarn (8.8 per cent),

while in the production of cloth, the share of cotton khadi cloth was 58 per cent, followed by silk cloth (26 per cent) and woollen (17 per cent).

Table 2 : Khadi Production According to Variety (2004-07)

Name of the Product	Yarn Production						Khadi Fabric Production					
	Quantity (lakh kgs)			Value (₹ crore)			Quantity (million sqr. meters)			Value (₹ crore)		
	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07	2004-05	2005-06	2006-07
Cotton	162.0	162.15	168.88	139.7	141.59	149.92	59.03	58.65	60.09	266.1	280.00	295.76
Woollen	34.8	34.82	36.84	35.3	35.02	37.29	6.42	6.40	6.86	76.5	72.28	76.31
Silk	2.6	2.59	2.74	16.8	16.74	17.83	4.44	4.89	4.93	119.0	116.02	119.45
Total	199.4	199.56	208.46	191.8	193.35	205.04	69.89	69.94	71.88	461.5	468.30	491.52

Source : KVIC Report-various issues.

There are several States engaged in Khadi production. It could be seen from Table 3, that in cotton khadi production, the major States are UP (45 per cent), followed by Gujarat and Haryana (each contributing about 6.5 per cent), and TN (6 per cent), while the major

woollen producing States are Haryana (24 per cent), followed by UP (19 per cent), Rajasthan (18 per cent) and Karnataka (10 per cent). The major silk khadi producing States are WB (32 per cent), TN (31 per cent), Karnataka (8 per cent), and Gujarat (6 per cent).

Table 3 : Major States Contributing for Khadi Production (2006-07)

(Percentage share in relation to all India total)

Rank	Cotton		Woollen		Silk	
	State	% Share	State	%Share	State	% Share
1	UP	45.36	Haryana	23.48	W.B	31.48
2	Gujarat	6.74	U.P.	19.12	T.N.	31.02
3	Haryana	6.41	Rajasthan	18.48	Karnataka	7.69
4	T.N.	5.59	Karnataka	10.22	Gujarat	6.13

Source : KVIC - Various Reports.

Employment and Labour Productivity in Khadi

Khadi sector employs about 8.84 lakh persons. Table 4 indicates that of total khadi sector employment, spinners' share is about 80 per cent, followed by weavers (12 per cent), and others (9 per cent). However, earnings share of spinners is lower at 24 per cent, while the share of others (49 per cent) and weavers (27 per cent) are higher than that of spinners. The women artisans covered under khadi

programme represented 64.9 per cent of the total employment. The per capita earnings of spinners is about Rs.1021, while for weavers it is about Rs. 8,683 and Rs.15272 for others. Employment in the cotton segment is nearly 75 per cent of total khadi employment, in terms of total earnings and per capita earnings, silk shares the number one position, followed by woollen as second, and cotton the third as cotton khadi is spread almost in all parts of the country, while silk and wool are confined to a few states.

Table 4 : Employment and Labour Productivity (2006-07)

S.No.	Particulars	Cotton	Woollen	Silk	Total khadi	% Total
Employment in khadi sector (lakh persons)						
1	Spinners	5.43	1.07	0.51	7.01	79.3
2	Weavers	0.56	0.2	0.27	1.03	11.7
3	Others	0.59	0.11	0.1	0.8	9.1
	Total	6.58	1.38	0.88	8.84	100
Earnings (₹ crore)						
1	Spinners	44.61	11.45	15.48	71.54	25.3
2	Weavers	41.33	15.33	32.78	89.44	31.6
3	Others	82.2	16.6	23.38	122.18	43.1
	Total	168.14	43.38	71.64	283.16	100
Per capita earnings (₹ /annum)						
1	Spinners	822	1070	3035	1021	31.9
2	Weavers	7380	7665	12141	8683	271.1
3	Others	13932	15091	23380	15272	476.8
	Total	2555	3143	8141	3203	100

Source: KVIC Reports - various issues.

Methodology, Approach and Objectives of the Study

The study also collected data on all khadi institutions and assessed their capabilities, projection of their requirement in terms of spinning and weaving infrastructure, upgradation of skills of artisans and supervisory workers. Totally, 200 khadi institutions were identified. All the A + & A category institutions were surveyed with a pre-tested questionnaire, and the best among them are selected for a detailed study based on an objective criterion. The number of khadi institutions selected in each State are given in Table 5. The pre-tested questionnaire was administered with the institutions selected for the study, and the production potential of khadi institutions based on production of the

last three years, sales, and number of weavers and spinners, and product categories were gathered. As far as possible all institutions with annual market size of more than Rs.50 lakh were selected. Each state/zone is equally represented in the selection of khadi institutions based on the states' share in the production of cotton khadi, woollen khadi, and silk khadi. KVIC made necessary adjustments/changes in the selected institutions taking into account the geographical spread. The main objective of the study is to assess the employment generation potential of the Khadi institutions. Secondly, the study focuses on identification of problems faced by the selected institutions. Data presented related to the period 2003-08, and projection of production and requirement of spinners and weavers by 2012.

Table 5 : Zone-wise and State-wise Performance of Khadi Production Category-wise (2006-07) and Number of Selected Khadi Institutions

State/UT	Quantity (lakh square meters)				Value (₹ lakh)				Value %	Qty %	No. of institutions selected
	Cotton	Woollen	Silk	Total	Cotton	Woollen	Silk	Total			
(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
Chandigarh	0	0	0	0	0.4	0	0	0.4	0	0	0
Delhi	4	0.9	0	4.9	166.1	135	0	179.5	0.4	0.7	1
Haryana	34.9	13.6	0	48.5	1895.5	1791.5	0	3687	7.5	6.7	15
Himachal Pradesh	0.9	2.1	0	2.9	69.8	286.7	0	356.5	0.7	0.4	1
Jammu & Kashmir	0.2	3	0	3.1	9.3	710	0.3	719.5	1.5	0.4	3
Punjab	12.7	10.7	0	23.4	793.4	215.9	0	1009.3	2.1	3.3	4
Rajasthan	24.9	12.7	0	37.6	1479.5	1408.5	0	2888	5.9	5.2	12
North Zone	77.5	42.8	0	120.4	4413.9	4426	0.3	8840.2	18	16.7	36
Bihar	8.2	0.6	0.8	9.5	46.2	128.2	174.1	764.3	1.6	1.3	3
Jharkhand	1	0	0.9	1.9	43.5	15.1	253.3	311.8	0.6	0.3	1
Orissa	1.3	0	1	2.3	55.3	0	196.7	252	0.5	0.3	1
West Bengal	11.8	0	23.5	35.3	1095.7	0	3759.7	4855.4	9.9	4.9	20

(Contd.)

Table 5 : (Contd.)

(1)	(2)	(3)	(4)	(5)	(6)	(7)	(8)	(9)	(10)	(11)	(12)
East Zone	22.3	0.6	26.2	49.1	1656.5	143.2	4383.7	6183.4	126	6.8	25
Arunachal Pradesh	0	0	0	0	0.6	0	6.2	6.8	0	0	0
Assam	0.5	0	3.6	4.1	51	0	439.9	490.9	1	0.6	2
Manipur	0.5	0	0.2	0.7	23.2	0	39.3	62.5	0.1	0.1	0
Meghalaya	0	0	0	0	1	1.1	2.1	4.2	0	0	0
Mizoram	0	0	0	0.1	0.3	0	59.5	59.8	0.1	0	0
Nagaland	0	0.2	0.2	0.3	0	10	64.9	74.9	0.2	0	0
Sikkim	0.1	0	0	0.1	4.1	2.1	0	6.3	0	0	0
Tripura	0.2	0	0	0.2	8.5	0	0	8.5	0	0	0
North East Zone	1.3	0.2	4	5.5	88.7	13.2	611.8	713.7	1.5	0.8	3
Andhra Pradesh	15.1	0.3	0.8	16.1	1100.6	23.4	415.9	1539.8	3.1	2.2	7
Karnataka	35.8	6.1	4.9	46.7	1748.4	778.2	919.1	3445.7	7	6.5	14
Kerala	21.6	0	0.3	21.9	1457.3	0	54.9	1512.2	3.1	3.1	6
Pondicherry	0	0	0	0	0.1	0	6.5	6.6	0	0	0
Tamil Nadu	38.9	0	6.2	45.1	2540.3	0	3705.1	6245.4	12.7	6.3	25
South Zone	111.3	6.3	12.2	129.8	6846.6	801.6	5101.4	12750	25.9	18.1	52
Gujarat	29.5	1.4	0.1	31	1992.8	182.8	732.7	2908.3	5.9	4.3	12
Maharashtra	4.7	0	0	4.7	287.2	0	5	292.2	0.6	0.7	1
West Zone	34.2	1.4	0.1	35.7	2280	182.8	737.7	3200.5	6.5	5	13
Chhattisgarh	1.2	0	3.2	4.4	61.1	4.3	632.1	697.5	1.4	0.6	3
Madhya Pradesh	2.4	1.7	1.3	5.4	143.5	218.8	199.1	561.4	1.1	0.8	2
Uttarakhand	15.9	2.4	0	18.3	670.1	381.5	0	1051.7	2.1	2.5	4
Uttar Pradesh	334.2	13.2	2.4	349.7	1341.6	145.9	278.9	15153.6	30.8	48.7	62
Central Zone	354.2	17.3	6.8	378.3	1429.1	2063.5	1110.1	17464.1	35.5	52.6	71
All India	602.8	68.6	49.3	720.7	2957.7	7630.3	1194.5	4915.2	100	100	200

Source : KVIC Various Reports.

Figure 1 : Zone-wise Distribution of Selected Khadi Institutions

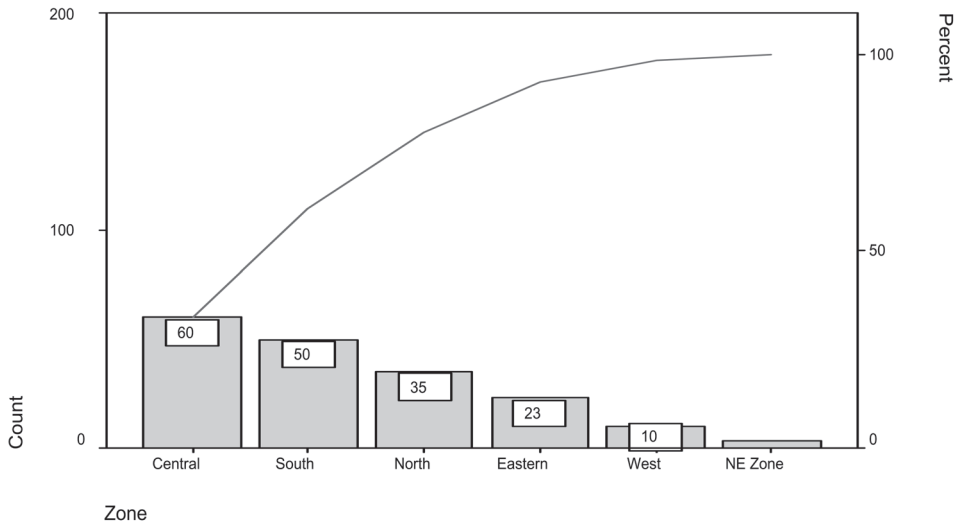
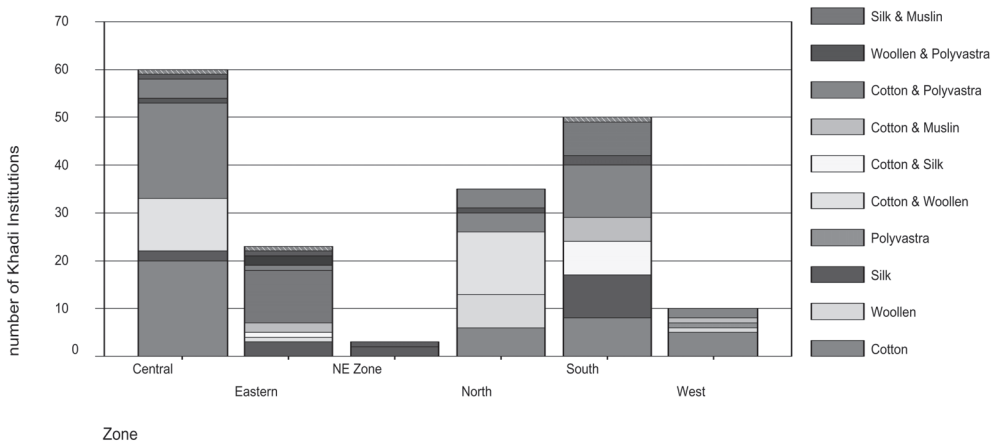


Figure 1 indicates that the proportion of selected khadi institutions is higher in central zone, followed by south zone, north zone, and eastern zone. This also indicates that in central, south and north India, khadi institutions are strong in financial and other parameters. Khadi institutions in west and north-eastern zones are financially weak, and their annual turnover is mostly less than ₹ 30 lakh.

Figure 2 indicates that cotton khadi producing institutions are concentrated in central zone, north zone, south zone, and west zone, while cotton and polyvastra producing institutions are also dominating in these zones. While woollen khadi producing institutions are located in north zone and west zone, silk khadi producing institutions are located in central, eastern, north-eastern, and south zones.

Figure 2 : Distribution of Khadi Institutions Zone-wise and Product Category-wise



The trends in employment growth in khadi sector are given in Table 6. Even though the employment figures constitute both full-time and part-time employment, they reflect general pattern of employment in the sector. KVIC and ministry of small-scale industries equate 30 per cent of part-time employment as one full-time employment in khadi sector. However, this does not fully capture the differences in earnings and duration of employment. To address this problem in a proper perspective, we have converted part-time employment to Full-Time Equivalent employment (FTE) based on earnings of part-time and full-time worker per year, using the statistics available in KVIC annual reports. One

full-time worker's annual earnings is equivalent to 13 part-time workers. Accordingly the current FTEs in the khadi sector are about 5.39 lakhs, of which full-time employees are 4.47 lakh and part-time employees are 5.39 lakh. The past performance record indicates that khadi sector historically had modest employment growth, and only during the Sixth Plan period, khadi sector could achieve 1.85 lakh net additional employment (both part-time and full-time). Spinners account for 84 per cent and weavers 9.5 per cent of total employment. Cotton khadi share is more than 75 per cent, and woolen sector's share is about 17 per cent, with silk and muslin making up the rest.

Table 6 : Year-wise Production, Sale and Expenditure per Employee

Year	Per employee exp. in rupees)	Production/ FTE (Cloth in sq.m)	Production/ FTE (in rupees)	Sales per unit of FTE (in rupees)	Earnings per worker (full-time)	Earnings per worker (Part-time)
2003	5058	202	11512	12607	5479.1	487.9
2004	5734	201	12395	14198	6225.4	508.3
2005	6123	189	13773	17349	6721.8	549.1
2006	7091	206	17408	18913	7595.6	646
2007	6353	207	19756	18328	8219.5	736.1

Table 6 shows that per employee expenditure increased from ₹ 5058 in 2003 to ₹ 6353 in 2007. Khadi production in terms of sq. meters of cloth per FTE (Full Time Employee) remained stagnant, though the value of production shows an increase of 1.7 times, and sales per FTE increased by 1.5 times during the same period. However, a Planning Commission study reveals that the resources are not the main binding constraint to employment generation in khadi. And they find

that there is no particular relationship between financial resources and employment generation in the khadi sector.

It is apparent that except khadi silk, for cotton, woollen and muslin khadi products, production (quantity-wise) declined in recent years. The main reasons for dismal performance of khadi sector are inflation, escalation of raw material value and shortage of working capital. Besides production

shortfalls, the major problem encountered with KVIC products is regarding marketing and sales. The HPC (High Power Committee) recommended replacing rebate with Marketing Development Assistance (MDA) to streamline marketing. It is apparent that there is no relationship between production, sales and earnings, as sales of a given year are for the accumulated production stocks over the years.

Descriptions of Selected Khadi Institutions

In this paper, we will present techno-socio-economic characteristics of selected 200 khadi institutions. Weavers and spinners are essential part of khadi institutions. The khadi institutions are mostly providing employment to women in their major activity, spinning. Most of the spinning work is going on in worksheds, which are equipped with New Model Charkhas, while weaving activity is mostly done at home. All the spinners are women, while men do most of the weaving. Most of the workers are literate. There is no child labour

in the khadi sector. Only a few institutions have professional designers who are degree/diploma holders. And most of the khadi institutions also do not have permanent technical personnel who can take care of repair and maintenance of charkhas and looms. It emphasises that there is a need for engaging technical personnel both in design of cloths and maintenance and repair of hardware at khadi institutions. All the institutions are maintaining employees' passbook with photographs. All the artisans are covered under *Janashree Bima Yojana*. Payment for spinning and weaving is made in cash to spinners and weavers. Every institution is contributing to the State Level Artisans Welfare Trust. Khadi institutions are also maintaining their accounts and records as per KVIC norms. Currently, most of the institutions are not exporting directly, however there is an indication that most of the institutions are selling frequently to foreign visitors from their outlets. Some foreigners are also purchasing from the major departmental outlets in Delhi, Mumbai, Kolkata and Chennai.

Table 7 : Gender-wise Number of Employees in a Typical Khadi Institution

Sex	Total		Literate	
	No.	Percentage	No.	Literacy Rate
Male	141	29.1	96	68.1
Female	344	70.9	234	68.0
Total	485	100.0	330	68.0

Source : KVIC Reports-various issues.

Table 7 reveals that on an average, female employees constituted 70.9 per cent of the total employees in a typical khadi institute. Similarly, the percentage of literacy was more or less equal at about 68 for both men and women.

All khadi institutions are maintaining details of employees along with passbooks and photographs. Maintenance and updating of passbooks were carried out for 97.0 per cent males and 95.9 per cent females (Table 8). Details of average annual turnover of khadi institutions are presented in Table 9.

Table 8 : Maintenance and Updating of Employees' Passbooks with Photographs

Sex	No. of employees	Maintained	Percentage
Male	141	135	95.9
Female	344	336	97.8
Total	485	472	97.2

Source : KVIC Reports-various issues.

Table 9 : Average Annual Turnover of Khadi Institutions (2007-08)

(Amount in ₹ lakh)

Type of product	Production		Retail		Wholesale		Stock	
	Amount	Per cent	Amount	Per cent	Amount	Per cent	Amount	Per cent
Cotton	75.0	49.3	47.0	37.81	31.0	44.10	47.0	49.68
Silk	53.5	35.2	24.9	20.03	24.0	34.14	18.6	19.66
Muslin	12.3	8.1	11.8	9.50	13.0	18.49	10.3	10.89
Wool	7.3	4.8	36.5	29.36	1.8	2.56	14.7	15.54
Polyvastra	3.9	2.5	4.1	3.30	0.5	0.71	4.0	4.23
Total	151.9	100.0	124.3	100.00	70.3	100.00	94.6	100.00

Source : KVIC Reports-various issues.

Table 10 gives details of production potential and sales of khadi institutions in 2007-08, and the future projected supply for 2012. All the institutions have good production potential as the average production is ₹ 116 lakh and average sales ₹ 135 lakh in FY 2007-08. The average number of weavers and spinners are 141 and 548, respectively for the selected khadi institutions (Table 10), which indicates the sound position of selected khadi institutions on both financial

and production infrastructure. The expected production potential increased by 50 per cent, while the number of spinners and weavers will be increased by 30 per cent by 2012. The number of khadi institutions which produce cotton; cotton & polyvastra; and cotton & woollen are higher in number compared to silk and polyvastra. The average production per institute varies between ₹ 76 lakh to ₹ 256 lakh in 2007-08, and it is projected to increase to ₹ 117 lakh to ₹ 384 lakh by 2012.

Table 10 : Production and Marketing Strength of Selected Khadi Institutions in 2007-08 and Forecast for 2012

Product	Number of firms	Mean Production in 2007-08 (₹ Lakh)	Mean Retail sale in 2007-08	No.of Spinners/ Institutes in 2012	No.of Weavers/ Institutes	Mean production Potential (₹ Lakh)	Spinners/ Institutes by 2012	Weavers/ Institute by 2012
Cotton	38	122.1	180.7	759.2	97.6	183.1	987	126.9
Cotton & Polyvastra	37	113.4	155.4	649	146.5	170.1	843.7	190.5
Cotton & Woollen	25	89.4	87.8	672.7	107.7	134.1	874.4	140.1
Silk	16	84.3	70.5	144.8	75.3	126.4	188.3	97.9
Silk & Muslin	11	81.5	66.9	215.5	93.9	122.2	280.2	122.1
Cotton, Silk & Polyvastra	9	216.7	119.3	557.9	578.6	325	725.3	752.2
Cotton & Muslin	8	90.6	115.9	647.9	191.3	135.9	842.2	248.7
Cotton & Silk	8	98.9	103	178.8	91.4	148.3	232.4	118.8
Woollen	8	166.3	97.6	449.9	34	249.4	584.8	44.2
Cotton, Muslin & Polyvastra	7	145.6	278.4	503.6	253.3	218.4	654.6	329.3
Cotton, Silk & Polyvastra	5	107.4	107.6	96.8	138.8	161.1	125.8	180.4
All types	3	256	266.7	1100	334	384	1430	434.2
Cotton, Silk & Muslin	2	125	125	337	189.5	187.5	438.1	246.4
Woollen & Polyvastra	2	78	112.5	107	100	117	139.1	130
Polyvastra	1	171	238	700	150	256.5	910	195
Total	180	116.8	135.1	548.5	141.8	175.1	713.1	184.4

The authors calculated on the data source of KVIC- various Reports.

It could be seen from Table 11 that in majority of the khadi institutions, once in a week, technicians come to worksheds, and inspect the charkhas and looms (63.3 per cent).

Table 11 : The Frequency of Machines Checked by Technicians for Maintenance

Duration	Percentage
Once a week	63.3
Every month	26.7
Every year	5.0
When needed	5.0
Total	100

It could be seen from Table 12 that 93 per cent of the artisans were insured under the *Janashree Bima Yojana*, and there is no child labour working in the selected khadi institutions.

Table 12 : Details of Child Labour and Coverage of Employees under Janashree Bima Yojana

Particulars	Yes	No
Artisans covered under <i>Janashree Bima Yojana</i>	93%	7.0%
Child labour	0%	100 %

Around 70 per cent of the khadi institutions contributed to State Level Artisans' Welfare Trust Fund. Most of the khadi institutions are contributing more than ₹2 lakh per annum to the Artisans Welfare Trust Fund. Institutions that contributed above ₹10 lakh

per annum comprise about 14.5 per cent of the total institutions (Table 13).

Table 13 : Contribution to the State Level Artisans Welfare Fund Trust 2006-07 (₹lakh)

Amount (₹ lakh)	Percentage
Up to 1.0	8.1
1.1 - 2.0	24.2
2.1 - 10.0	22.6
Above 10.0	14.5
No contribution	30.6
Total	100

The average working capital utilisation of a typical khadi institution is given in Table 15. The average working capital expenses incurred by a typical khadi institution is ₹110.62 lakh in the year 2006-07. About 56 per cent of the working capital expenses are spent on cotton khadi production, while 17 per cent on silk production, 13 per cent on muslin production, 10 per cent on wool production and only 4 per cent on polyvastra. Out of total working expenses, share of wages and other production aspects is about 58 per cent, while 38 per cent of working expenses is spent on raw material, and only 5 per cent spent on marketing expenses (Table 14). Raw material component cost is much higher in case of wool, muslin, and silk when compared to cotton. In case of cotton and polyvastra, wage component occupies the dominant position. Marketing cost is in the range of 4 to 6 per cent in most categories. In wool, it is lower.

Table 14 : Working Capital Spent during 2006-07 (₹ In lakh)

Particulars	Raw Material	Wages/Production	Marketing	Total
(1)	(2)	(3)	(4)	(5)
Cotton	14.80 (23.9)	43.50 (70.2)	3.65 (5.9)	61.95 (100)(56.0)
Silk	9.03 (48.9)	8.69 (47.0)	0.75 (4.1)	18.47 (100)(16.7)
Wool	9.34 (83.2)	1.75 (15.6)	0.13 (1.2)	11.22 (100)(10.1)
Muslin	7.89 (53.1)	6.33 (42.6)	0.63 (4.2)	14.85 (100)(13.4)
Polyvastra	0.39 (9.5)	3.47 (84.2)	0.26 (6.3)	4.12 (100)(3.7)
Total	41.46 (37.5)	63.74 (57.6)	5.42 (4.9)	110.62 (100)(100)

Note : Figures in parentheses indicate percentage to row totals. In addition, in column 5, another figure is given in parentheses denoting percentage to column total.

Source : KVIC Reports-various issues.

Most of the selected khadi institutions adopted improved spinning and weaving machinery. Most of the institutions (79 per cent) are equipped with new model charkhas, while 18 per cent have traditional charkhas and only 3 per cent have e-charkhas. Similarly, about 75 per cent of the institutions own pedal looms, and the remaining 25 per cent own handlooms (Table 15).

Most of the institutions are well equipped with in-house spinning and weaving facilities (more than 80 per cent), whereas in-house stitching, dyeing and printing facilities are available in very few khadi institutions, i.e., 59.7, 24.2 and 24.2 per cent, respectively (Table 16).

Table 15 : Machinery Available at Production Unit

Spinning machinery	% of spinning machines
New model charkha	79
Traditional charkha	18
E-charkha	3
Total	100
Weaving machinery	% of weaving machines
Handloom	25
Pedal loom	75
Total	100

Table 16 : Availability of Facilities in the House

Particulars	Well equipped	Partial	Not available	Blank	Total
Spinning	83.9	3.2	0.0	12.9	100.0
Weaving	87.1	1.6	0.0	11.3	100.0
Stitching	59.7	0.0	1.6	38.7	100.0
Dyeing	24.2	3.2	4.8	67.7	100.0
Printing	8.1	1.6	8.1	82.3	100.0

We have also considered the availability of in-house skilled manpower in spinning, weaving, stitching, dyeing and printing which are essential for better quality and timely delivery of khadi products. It is evident from Table 17 that most of the khadi institutions have

in-house manpower with strong spinning and weaving skills. However, availability of manpower with strong stitching, dyeing and printing skills were seen in only 51.6, 27.4 and 11.3 per cent of the institutions, respectively.

Table 17 : Skill Availability of the Khadi Institutions

Skill type	Strong	Average	Not available	Blank	Total
Spinning	88.7	1.6	0.0	9.7	100.0
Weaving	87.1	1.6	0.0	11.3	100.0
Stitching	51.6	1.6	1.6	45.2	100.0
Dyeing	27.4	1.6	3.2	67.7	100.0
Printing	11.3	0.0	6.5	82.3	100.0

From Table 18 it can be found that 62.9 per cent of the khadi institutions have toilets and children park, etc. within the premises whereas 27.4 per cent do not have proper toilets and children park within their worksheds.

About 92 per cent of the selected institutions are maintaining suggestion/feedback/complaint record books, and taken steps to implement suggestions received from the workers to improve the working conditions of the khadi institutions. However, a few (about 6.5 per cent) of them do not have provision for taking the feedback of the employees (Table 19).

Table 18 : Proper Toilets and Children Park in the Worksheds of the Institution

Particulars	Percentage
Excellent	62.9
Good	8.1
Average	1.6
Below average	0.0
Poor	0.0
Blank	27.4
Total	100

Table 19 : Maintenance of Records for Taking Suggestions/Feedback/Complaints of the Artisans

Particulars	Percentage
Yes	91.9
No	6.5
Blank	1.6
Total	100

Most of the khadi institutions sought help in financing working capital (73 per cent), skill upgradation (60 per cent), marketing support (33 per cent), and infrastructure support (33 per cent)(Table 20).

Table 20 : Help/Support Required for Institutions

Type of Support	%
Financial side	73.4
Employee side/ skill upgradation	60.0
Marketing side	33.4
Infrastructure side	33.4

Conclusion

The study identified 200 khadi institutions which have high potential for future growth. The average production of selected institutions is ₹116 lakh and average sales ₹135 lakh in 2007-08. The average number of weavers and spinners are 141 and 548, respectively for the selected khadi institutions which indicates the sound position of selected khadi institutions on both financial and production infrastructure. The expected production potential increased by 50 per cent, while number of spinners and weavers will be increased by 30 per cent by 2012.

Most of the institutions are suffering from shortage of working capital. Institutions also require financial help for improvement of retail

outlets, for quality testing labs, and development of worksheds for spinning and weaving. Most of the artisans are not satisfied with the performance of the existing charkhas and looms. Khadi institutions require financial support to upgrade/improve charkhas and looms, which will enhance labour productivity and quality substantially to meet export standards. Grants are required to build/improvement of Khadi Bhandars and Bhavans in big cities and tourist spots. There is a need to renovate and improve the khadi outlets. There is a need for construction of common facilities for dyeing/processing, printing, stitching, and cleaning at appropriate locations within the reach of the selected khadi institutions. Financial support is also required for purchasing computers with Internet connection; fax machines, new model charkhas, improved looms and yarn quality-testing equipments for each khadi institution. Replacement of traditional charkhas and looms with pedal looms and 8 spindle new model charkhas is an urgent requirement for increasing productivity of workers. Common working sheds have to be developed for spinners and weavers for maintaining uniform quality of cloth, which is a pre-requisite for exports. Proper training and performance based incentives to be given to spinners and weavers. Well-furnished worksheds to be developed for both spinners and weavers with good infrastructure and common facilities like workers club, children's garden, etc. which will increase productivity of workers, also help in uniform quality of yarn and cloth.

Even though most of the selected khadi institutions are within clusters, some fall outside the clusters. Institutions falling outside the clusters need special arrangements for marketing and other managerial areas of support.

There is an urgent need for wider adoption of improved technology like new model charkhas, and pedal operated looms

among selected 200 khadi institutions and also to develop new types of tools, equipment and machines to reduce drudgery and increase productivity of labour. Secondly, Effective Management Information System (MIS) which integrates supply of raw material, workers payments and sales (domestic and exports) and it should be linked to the KVIC through adequate networking and finally the KVIC and the proposed corporation should encourage producing institutions to form federations at

the State level and provide common services including marketing. Considering that nearly about 75 per cent of cotton khadi is now being sold in the form of printed, dyed and fabricated products, there is a need for development of common processing units for dyeing, printing and finishing at State level, facilities like bleaching, dyeing, mercerising, wash-in-wear, anti-shrink, printing, perma-press, tailoring, embroidery etc. to be developed at common service centres.