



“A Comparative Analysis of Export from handicraft and Handloom Sector of Jammu and Kashmir”

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ABSTRACT

The state of Jammu and Kashmir is predominantly an agriculture economy unlike some other states in the country and is one of the most under-developed States of India. Handicraft and handloom sectors are the important sector of Jammu and Kashmir as they have very vast potential for economic activities like revenue and provide the huge employment not only in rural areas but also in urban areas. The present study is an attempt to examine the growth in production and export of handicraft and handloom sectors in the state of Jammu and Kashmir employing time series data from 1995-96 to 2014-15 and to compare the exports from both the sectors, collected from various official sources. The statistical techniques used in this study are Average, Growth Rate, Standard Deviation, Coefficient of variation, Compound Annual Growth Rate and compared t-test. It is found from the study that the average export of handicraft sector is worth ₹ 766.66 crores per year and in handloom sector of Jammu and Kashmir the average export of handloom sector is worth ₹ 326.65 crore with the standard deviation of 478.93 and 211.17 respectively and the mean difference between the export of the two sectors is 440.01, hence from the above table it can be concluded that export of handicraft sector is more than the export of handloom sector in Jammu and Kashmir.

Keywords:

Handicraft, Handloom, Production, Export, J&K.

I. Introduction

Small and medium enterprises have been considered as the backbone of industrial development small and medium enterprises always symbolized the model of economic development, for the economic development there should be high contribution to domestic production in the country (Madura2013)¹. To improve the manufacturing sector growth requires development of infrastructure, better access to land, application of new technology, education, skill development and fostering innovation in frontier technologies (Bhat 2014)². After the economic reforms in 1991

manufacturing played an important part in sustaining India's economic growth. As a result, manufacturing accounted for 23 percent of total GDP in 1993–2002. The electricity, water supply and gas, mining and construction subsectors accounted for 9 percent; and the service sector, comprising all other subsectors accounted for the remaining 43 percent (Kalirajan)³.

The state of Jammu and Kashmir is predominantly an agriculture economy unlike some other states in the country and is one of the most under-developed States of India. The state is backward because of the occupational structure, Composition of imports and exports,

residential patterns, low social product and productivity, no large-scale industries in the state (Ahmad and Nengroo, 2013)⁴. Economy of the Jammu and Kashmir State has wrapped behind in economic development. Many small and medium scale industries have come up basically in the traditional sector, handicraft and handloom along with some new areas like food processing, agro based units, wood based units, metallic and non-metallic products etc. However natural factors are more conducive for small scale industries like handicraft, handloom, cricket bat industry and village industries etc. Besides due to the saturation of employment opportunities, industrial sector has been declared as the main vehicle for accelerating economic activity (Dar and Thoker, 2012)⁵. But when we compare the Net State Domestic Product (NSDP) and Per Capita Income of Jammu and Kashmir (J&K) with other states of the country. Measures like Household assets and poverty of course reveal a different picture and that is for reasons that lie beyond the purview of this thesis. But before going for the reasons responsible for the low performance of manufacturing sectors in recent years and the efforts made by the Government to put the State on the industrial map of country it becomes imperative to give an account of the development of the State's economy (Dar and Parrey, 2013)⁶.

During Shah Hamadan's visit in Kashmir, the unemployment reaches in its peak and the condition of the people are misery. At the same time Shah Hamadan brings seven hundred skilled craftsmen in Kashmir and these craftsmen are highly skilled in various crafts and they trained the local persons of Kashmir for their artisanary skill and till that period, the pace of handicraft sector cannot stop and acclaim worldwide fame (Darakhshan, 2011)⁷. Handicraft sector is one of the important sector of Jammu and Kashmir because this sector not only contributes to other allied sectors in terms of income but also provide employment opportunity. Jammu and Kashmir handicraft sector has a potential to facilitate the path by raising the standard of living of the state citizens within and outside the state boundaries (Effat and Bhat, 2012)⁸. The handloom sector

industries are the oldest industries in the state of Jammu and Kashmir. These industries are also called cottage industries. These industries have a very vast potential for economic activities like revenue and provide the huge employment not only in rural areas but also in urban areas (Fiyaz and Nengroo, 2013)⁹. Since independence the growth of handicraft and handloom sector has been remarkable features in the economic development of the state of Jammu and Kashmir. The sector not only contributes to gross domestic product but also provide employment to the thousands of people living in rural areas (Madhavi, 2017)¹⁰.

II. Objectives

- ❖ To analyze growth in production of handicraft and handloom sectors in the state of Jammu & Kashmir.
- ❖ To analyze the growth in export of handicraft and handloom sectors in the state of Jammu and Kashmir
- ❖ To compare the exports between handicraft and handloom sectors in the state of Jammu and Kashmir.

III. Data Base and Methodology

To fulfill the mentioned objectives of the present paper secondary source of the data has been availed from the reliable sources such as official websites of Directorate of industry and commerce J&K, Directorate of handloom and handicraft, Directorate of economic and statistical, J&K, Ministry of small scale industries. Handloom Development Corporation, government official records, Books, journals magazines, websites and other active related agencies of the manufacturing sector in the state etc. The period of analysis ranged from 1995-96 to 2014-15. The statistical techniques used in this study are Average, Growth Rate, Standard Deviation, Coefficient of variation, Compound Annual Growth Rate and compared t-test.

$$a) \text{ Average} = \frac{1}{n} \times \sum_{i=0}^n x_i$$

Where, A = average n
= the number of terms

X_i = value of each individual item in the list of numbers being averaged

$$\text{b) Growth Rate} = \frac{Y_t - Y_{t-1}}{Y_{t-1}} \times 100$$

Where, Y_t = Value of current year

Y_{t-1} = Value of base year

c) Standard Deviation

$$\sigma = \sqrt{\frac{\sum X^2}{N}}$$

Where, σ = Standard Deviation

$$x^2 = (x - \bar{X})$$

Number of observations

$N =$

d) Co-efficient of Variation

$$CV = \frac{\text{Standard Deviation}}{\text{Mean}} \times 100$$

e) Compound Annual Growth Rate (CAGR)

$$CAGR = \left(\frac{Y_t}{Y_{t-1}} \right)^{\frac{1}{N}} - 1 \times 100$$

Where, Y_t = Value of Current year

Y_{t-1} = Value of Base year

N = Number of Years

f) t - Statistic

$$t = \frac{(\sum D) / N}{\sqrt{\frac{D^2 - \left(\frac{(\sum D)^2}{N}\right)}{(N-1)(N)}}}$$

Where, $\sum D$ = Sum of the differences

$\sum D^2$ = Sum of the squared differences

$(\sum D)^2$ = Sum of the differences squared

IV. Data analysis and interpretation

Table 1.1: Variation and fluctuation of production of handicraft sector in J&K (1995-96 to 2014-15) (Production ₹ in crores)

Year	Carpets	Woolen Shawls	paper Machie	Other Items	Total
Average	497.59	267.18	47.92	228.64	1041.34
SD	215.78	240.25	46.34	178.12	610.17
CV	43.36	89.92	96.69	77.90	58.59
Growth Rate	556.75	2325.36	3026.28	477.80	767.92
CAGR	9.96	17.86	19.48	9.18	11.61

Source: Computed by Author on the Basis of Data Obtained from Economic survey J&K, various issues and Directorate of handicraft J&K.

An illustration of variation and fluctuation of production by various products of handicraft sector of Jammu and Kashmir from the year 1995-96 to 2014-15 is presented in table 1.1. To analyze the different products in the total production of handicraft sector it has been found from the table that the average production of carpets during the study period is worth ₹ 497.59 crores, with standard deviation of 215.78, coefficient of variation of 43.36 percent, growth rate of 556.75 percent and compound annual growth rate of 9.96 percent.

The average production of woolen shawls during the study period is worth ₹ 267.18 crores, with standard deviation of 240.25, coefficient of variation of 89.28 percent, growth rate of 2325.36 percent and compound annual growth rate of 17.86 percent. The average production of paper machie during the study period is worth ₹ 47.92 crores, with standard deviation of 46.34, coefficient of variation of 96.69 percent, growth rate of 3026.28 percent and compound annual growth rate of 19.48 percent. The average production of other items

during the study period is worth ₹ 228.64 crores with standard deviation of 178.12, coefficient of variation of 77.90 percent, growth rate of 477.80 percent and compound annual growth rate of 9.18 percent. The average production of total handicraft sector during the study period is worth ₹ 1041.34 crores with standard deviation of 610.17, coefficient of variation of

58.59 percent, growth rate of 767.92 percent and compound annual growth rate of 11.61 percent.

Analysing the product wise growth, it is observed that paper machie has witnessed the highest growth interms of production.

**Table: 1.2: Year wise export from handicraft sector in J&K (1995-96 to 2014-15)
(Export in ₹ crores.)**

Export	Carpets	Woolen shawls	Paper Machie	Other items	Total
1995-96	260	13.50	8.75	10.75	293
1996-97	20.57	4.02	16.98	46.57	88.14
1997-98	55.50	7.30	13.43	115.87	192.10
1998-99	207.33	15.70	9.90	14.07	247
1999-00	489.90	8.50	33	26.49	556.99
2000-01	326.06	54.42	12.96	46.46	439.90
2001-02	422.21	36.69	9.33	72.02	504.25
2002-03	320	175	9.70	44.50	549.20
2003-04	334	196	10.50	54.50	595
2004-05	307.50	210	17.50	107	642
2005-06	325	220	27.50	132.50	705
2006-07	351.50	275	31.50	127	785
2007-08	649.02	310.29	33.65	207.51	1200.47
2008-09	326	226.50	41	112	705.50
2009-10	407.73	137.13	30.27	86.14	661.27
2010-11	412.25	302	66.50	223.15	1004.10
2011-12	567.13	607.03	98.24	370.97	1643.37
2012-13	455.86	620.02	104.11	358.29	1538.28
2013-14	551.90	579.72	39.96	524.07	1695.65
2014-15	492.18	368.20	71.70	356.96	1287.04
Average	364.08	218.35	34.32	151.84	766.66
SD	152.52	196.30	28.34	140.32	466.81
CV	41.89	89.90	82.57	92.41	60.89
Growth Rate	89.30	2627.41	719.43	3220.56	339.26
CAGR	31.31	19.01	11.71	20.24	8.10

Source: Computed by Author on the Basis of Data Obtained from Economic survey J&K, various issues and Directorate of handicraft J&K.

An illustration of export of product wise from handicraft sector of Jammu and Kashmir from the year 1995-96 to 2014-15 is presented in table 1.2. It is obvious from the table that the export of carpets has increased from ₹ 260 crores in the year 1995-96 to ₹ 492.18 crores in the year 2014-15 with average of ₹ 364.08 crores. The standard deviation of export of carpets is 152.52 and coefficient of variation is 41.89 percent and witnessed growth rate and compound annual growth rate of 89.30 percent and 31.31 percent respectively. The export of woolen shawls has increased from ₹ 13.50 crores in the year 1995-96 to ₹ 368.20 crores in the year 2014-15 with average of ₹ 218.35 crores. The standard deviation of export of woolen shawls is 196.30 and coefficient of variation is 89.90 percent and witnessed growth rate and compound annual growth rate of 2627.41 percent and 19.01 percent respectively. The export of paper machie has increased from ₹ 8.75 crores in the year 1995-96 to ₹ 71.70 crores in the year 2014-15 with average of ₹ 34.32 crores. The standard deviation of export of paper machie is 28.34 and

coefficient of variation is 82.57 percent and witnessed growth rate and compound annual growth rate of 719.43 percent and 11.71 percent respectively.

The export of other items has increased from ₹ 10.75 crores in the year 1995-96 to ₹ 356.96 crores in the year 2014-15 with average of ₹ 151.84 crores. The standard deviation of export of other items is 140.32 and coefficient of variation is 92.41 percent and witnessed growth rate and compound annual growth rate of 3220.56 percent and 20.24 percent respectively. The export of total handicraft sector has increased from ₹ 293 crores in the year 1995-96 to ₹ 1287.04 crores in the year 2014-15 with average of ₹ 766.66 crores. The standard deviation of export of total handicraft sector is 466.81 and coefficient of variation is 60.89 percent and witnessed growth rate and compound annual growth rate of 339.26 percent and 8.10 percent respectively. Analysing the product wise export from handicraft sector, it is observed that woolen shawls has witnessed the highest growth interms of export

Table: 1.3: Variation and fluctuation of production of handloom sector in J&K (1995-96 to 214-15) (Production ₹ in crores)

Year	Pashmina	Raffal	Silk saris	Other items	Total production
Average	203.50	93.31	48.11	10.21	354.68
SD	103.52	30.33	49.41	3.84	164.05
CV	50.98	32.51	102.71	37.65	46.25
Growth Rate	803.48	362.21	2863.54	107.02	716.60
CAGR	12.22	8.35	19.42	3.88	11.62

Source: Computed by Author on the Basis of Data Obtained from Economic survey J&K, various issues and Directorate of handicraft J&K.

An illustration of variation and fluctuation of production by various products of handloom sector of Jammu and Kashmir from the year 1995-96 to 2014-15 is presented in table 1.3. To analyze the different products in the total production of handloom sector it has been found from the table that the average production of pashmina during the study period is worth ₹ 203.50 crores, with standard deviation of 103.2, coefficient of variation of 50.98 percent, growth rate of 803.48 percent and compound annual growth rate of 12.2

percent. The average production of raffal during the study period is worth ₹ 93.31 crores with standard deviation of 30.33, coefficient of variation of 32.51 percent, growth rate of 362.21 percent and compound annual growth rate of 8.35 percent. The average production of silk saris during the study period is worth ₹ 48.11 crores, with standard deviation of 49.41, coefficient of variation of 102.71 percent, growth rate of 2863.54 percent and compound annual growth rate of 19.42 percent. The average production of other items during the

study period is worth ₹ 10.21 crores with standard deviation of 3.84, coefficient of variation of 37.65 percent, growth rate of 107.02 percent and compound annual growth rate of 3.88 percent. The average production of total handloom sector during the study period is worth ₹ 354.68 crores with standard deviation

of 164.05, coefficient of variation of 46.25 percent, growth rate of 716.60 percent and compound annual growth rate of 11.62 percent. Analysing the product wise growth, it is observed that silk saris has witnessed the highest growth in terms of production.

Table 1.4: Export performance of Handloom Goods of J&K (1995-96 to 2014-15)
(Export in ₹ crores.)

Year	Pashmina	Raffal	Silk saris	Other items	Total
1995-96	19.75	11.50	6.75	11.21	49.21
1996-97	44.57	7.02	26.98	13.67	92.24
1997-98	111.87	9.30	23.43	12.97	157.57
1998-99	78.07	13.70	11.90	12.89	116.56
1999-00	66.49	9.50	28.00	12.76	116.75
2000-01	46.46	58.42	11.56	15.88	132.32
2001-02	72.02	38.69	7.33	16.91	134.95
2002-03	44.50	155.00	11.70	15.45	226.65
2003-04	54.50	176.00	14.50	15.98	260.98
2004-05	77.00	190.00	21.50	11.32	299.82
2005-06	92.50	210.00	24.50	12.24	339.24
2006-07	107.00	265.00	34.50	14.65	421.15
2007-08	117.51	320.29	31.65	13.33	482.78
2008-09	114.00	216.50	39.00	13.43	382.93
2009-10	66.14	127.13	28.27	14.21	235.75
2010-11	123.15	242.00	57.50	13.67	436.32
2011-12	270.97	327.03	88.24	12.87	699.11
2012-13	258.29	280.02	114.10	13.78	666.20
2013-14	324.07	279.72	33.96	14.32	652.07
2014-15	318.23	265.21	31.65	15.23	630.32
Average	120.35	160.10	32.35	13.84	326.65
SD	93.67	116.16	26.85	1.52	211.18
CV	77.83	72.55	82.98	10.97	64.65
Growth Rate	1511.29	2206.17	368.89	35.86	1180.88
CAGR	15.75	17.96	8.47	1.63	14.36

Source: Computed by Author on the Basis of Data Obtained from Economic survey J&K, various issues and Directorate of handicraft J&K.

An illustration of export of product wise from handloom sector of Jammu and Kashmir from the year 1995-96 to 2014-15 is presented in table 1.4 it is obvious from the table that the export of pashmina has increased from ₹ 19.75 crores in the year 1995-96 to ₹ 318.23 crores in the year 2014-15 with average of ₹ 120.35 crores. The standard deviation of export of pashmina is 93.67 and coefficient of variation is 77.83 percent and witnessed growth rate and

compound annual growth rate of 1511.29 percent and 15.75 percent respectively. The export of raffal has increased from ₹ 11.75 crores in the year 1995-96 to ₹ 265.21 crores in the year 2014-15 with average of ₹ 160.10 crores. The standard deviation of export of raffal is 116.16 and coefficient of variation is 72.55 percent and witnessed growth rate and compound annual growth rate of 2206.17 percent and 17.96 percent respectively. The

export of silk saris has increased from ₹ 6.75 crores in the year 1995-96 to ₹ 31.65 crores in the year 2014-15 with average of ₹ 32.35 crores. The standard deviation of export of silk saris is 26.85 and coefficient of variation is 82.98 percent and witnessed growth rate and compound annual growth rate of 368.89 percent and 8.47 percent respectively.

The export of other items has increased from ₹ 11.21 crores in the year 1995-96 to ₹ 15.23 crores in the year 2014-15 with average of ₹ 13.84 crores. The standard deviation of export of other items is 1.52 and coefficient of variation is 10.97 percent and witnessed

growth rate and compound annual growth rate of 35.86 percent and 1.63 percent respectively. The export of total handloom sector has increased from ₹ 49.21 crores in the year 1995-96 to ₹ 630.32 crores in the year 2014-15 with average of ₹ 326.65 crores. The standard deviation of export of total handloom sector is 211.18 and coefficient of variation is 64.65 percent and witnessed growth rate and compound annual growth rate of 1180.88 percent and 814.36 percent respectively. Analysing the product wise export from handloom sector, it is observed that raffal has witnessed the highest growth in terms of export

Table 1.5: comparison of export between handicraft and handloom sector in Jammu and Kashmir from 1995-96 to 2014-15

Activity	Parameters	Number	Mean	Std. Deviation	Std. Error Mean
Export	Handicraft	20	766.66	478.93	107.09
	Handloom	20	322.64	211.17	47.22

Independent samples test

Dimension	Description	Levene's test for equality of variance		t test for equality of means			
		F	Sig.	t	Df	Sig. (2 tailed)	Mean Difference
Export	Equal variance assumed	9.040	0.05	3.760	38	0.01	440.01
	Equal variance not assumed			3.760	26.119	0.01	440.01

Source: computed by Author from table 1.2 and 1.4.

Comparison of export between the handicraft and handloom sector is presented in table 1.5, it is found from the table that variation of export between the two sectors differ significantly ($p < 0.05$) level of significance, the average export of handicraft sector is worth ₹ 766.66 crores per year and in handloom sector of Jammu and Kashmir the average export of handloom sector is worth ₹ 326.65 crore with the standard deviation of 478.93 and 211.17 respectively and the mean difference between

the export of the two sectors is 440.01, hence from the above table it can be concluded that export of handicraft sector is more than the export of handloom sector in Jammu and Kashmir.

V. Conclusion

The state of Jammu and Kashmir is predominantly an agriculture economy unlike some other states in the country and is one of the most under-developed States of India.

Handicraft and handloom sectors are the important sector of Jammu and Kashmir as they have very vast potential for economic activities like revenue and provide the huge employment not only in rural areas but also in urban areas. It is found from the study that the average production of total handicraft sector during the study period is worth ₹ 1041.34 crores with standard deviation of 610.17, coefficient of variation of 58.59 percent, growth rate of 767.92 percent and compound annual growth rate of 11.61 percent and the export of total handicraft sector has increased from ₹ 293 crores in the year 1995-96 to ₹ 1287.04 crores in the year 2014-15 with average of ₹ 766.66 crores. The standard deviation of export of total handicraft sector is 466.81 and coefficient of variation is 60.89 percent and witnessed growth rate and compound annual growth rate of 339.26 percent and 8.10 percent respectively. Analysing the product wise export from handicraft sector, it is observed that woolen shawls has witnessed the highest growth interms of export. Furthermore, it is found from the study that the average production of total handloom sector during the study period is worth ₹ 354.68 crores with standard deviation of 164.05, coefficient of variation of 46.25 percent, growth rate of 716.60 percent and compound annual growth rate of 11.62 percent. Analysing the product wise growth, it is observed that silk saris has witnessed the highest growth interms of production and the export of total handloom sector has increased from ₹ 49.21 crores in the year 1995-96 to ₹ 630.32 crores in the year 2014-15 with average of ₹ 326.65 crores. The standard deviation of export of total handloom sector is 211.18 and coefficient of variation is 64.65 percent and witnessed growth rate and compound annual growth rate of 1180.88 percent and 814.36 percent respectively. Analysing the product wise export from handloom sector, it is observed that raffal has witnessed the highest growth interms of export.

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