STUDY ON EXPORTABLE PRODUCTS OF BHADOHI CARPET INDUSTRIES
—An analytical survey

DISSERTATION SUBMITTED
IN PARTIAL FULFILMENT OF THE REQUIREMENT
FOR THE DEGREE OF
Master of Business Administration

BY
JAFAR RAZA

Under the able guidance of
Mr. S. ASIF HALEEM
READER

DEPARTMENT OF BUSINESS ADMINISTRATION
ALIGARH MUSLIM UNIVERSITY
ALIGARH
OCT. 1981
Dedicated to my brother's wife
Aziz Fatma - who left for Kingdom
of Heaven in her heyday age;
Certified that the Dissertation entitled 'Study on Exportable products of Bhadohi carpet Industries- An analytical survey' submitted by Jafar Raza in partial fulfilment of the Degree of Master of Business Administration has been completed under my supervision and guidance, is his own work.

To the best of my knowledge it has not been submitted for the award of any other Degree in this University or elsewhere.

(S. ASIF HALEEM)
SUPERVISOR
PREFACE

Eternal India, with its rich heritage of Science arts and humanities epitomises modern society. Since time immemorial her sons have nurtured the difficult arts through generations and have provided the world their unique and creative talents. One such is the art of Carpet Weaving. This industry which had a humble beginning in India has now matured and today the charishma of hand-knotted carpets is recognized the world over. The hand made carpets have unmatched and incomparable charm and exquisite beauty. With the result that has become completely export oriented—more than 95% of the Indian carpets find their way to overseas markets.

Being one of the major source of foreign earner, the industry is growing like a maverick. Consequently, the need for bridling it becomes imperative. Currently the export of carpets is going through a bad patch for reasons which could be overcome through modern management techniques and approaches.

It is for this reason that I have been prompted to base my dissertation on the carpet industry. Evidently, not much study has been done in this field, nor have the manufacturers allowed researchers and others to gain much knowledge for the
outsides are always thought of as prospective competitors or spies of competitors - another compelling reason why winds of change brought about by scientific studies, have not blown through this industry.

Happily, I have been able to make my humble contribution by virtue of my rapport and impeccable bona fides. The various persons and parties in the Bhadohi region and elsewhere were very cooperative and friendly. I am glad that I was able to cover a lot of ground hitherto uncharted. My study has been enthusiastically welcomed by the manufacturers. I believe it shall prove useful for those entrepreneurs entering this industry as well.
A dissertation of this length is necessarily based on a wide variety of original sources. While I have made original contributions in some specific areas of analysis and in the conceptual framework, the bulk of the information on which the dissertation is based comes from other contributors. I have carefully shown the sources of these information at the points they are discussed. I hope I have made no omission. The manuscript was carefully prepared and proofread at several stages. It is my fondest desire that no errors remain, yet my study tells me that this is virtually impossible.

I owe a special debt of gratitude to scores of individuals and business firms who graciously provided me facility and assistance in data collection. My gratitude particularly goes to Mr. Asif Haleem under whose able guidance my study has become a spectacular success. I am also greatful to Mr. Nadeem Iqbal (Sales Officer in Himachal Wool processors Ltd.) who has given me technical information regarding this work. At the last I want to express my heart felt thanks to my family members who have encouraged as well as supported me at every step.

( Jafar Raza )
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***************
INTRODUCTION
INTRODUCTION

This history of Carpet weaving is a glorious story. It takes us in golden road to Samarkand, to the cool silent gardens of Isphahan and the flower strewn fields of Kirman, the counter yards of China and Queen Elizabeth's great audience hall.

No one knows when or where the first pile fabric was knotted. Probably its inspiration was an animal's skin which our enterprising ancestors were trying to concoct with their own fabrics, these have been found in Egyptian tombs that were sealed centuries before the birth of Christ.

The story of first oriented rug recorded in history reads like a fairy tale. When the Persians fell into the hands of Arabs in the year 63 AD., they found in the Royal palace a Colossal Carpet of 1051 Sq. meters. Its materials which were marvellous and costly consisted of silk, gold, silver and precious stones. This fabulous Carpet was cut into pieces and given to the Arab Soldiers as loot, each man getting a fragment worth about Rs.10,000/-. The then value of whole had been set up by appraisers at over 37 lakhs.

The most famous rug in the world is in South Kennington Museum in London. It is 400 yrs. old and could not be bought
for even about 20 lakhs. It is called the "ARDEBIL CARPET". Thirty two million knotts are tied to this wrap. It is estimated that it took 10 weavers and a time of \( \frac{3}{2} \) yrs. to weave the Carpet. The oldest rug and the most beautiful the world has ever seen come from sixteenth to seventeenth century from Persia.

**Carpet Industry in India:**

The introduction of the hand knotted Carpet in India dates back to the reign of Akbar, who, in the second half of the sixteenth century brought persian rugs and their weavers to Agra. The famous Indo-persian rugs of this period, equalled the beauty and exquisiteness of the Persian models.

In the North the centres are at Agra, Amritsar and Kashmir, where very superior quality Carpets are woven. They range from about 120 to 576 knot/square inch. The characteristics of the Carpets woven in Kashmir and Agra are the fineness, intricate designs and constructional details. The weavers belonging to these areas are highly skilled and talented. They work on looms within the factory premises, though recently weavers have started working at their homes too. These weavers don't read the designs from a "Naksha". Instead a leader chants the knots from a script called a "Taleem" and the weavers on many looms follow his song. The usual persian design produced in the Carpets are famous ones namely - Kirman, Kashan, Isfahan, Shah Abbas, Henna, Ardebil,
Sehra Bano and Pardha Saruk. Apart from these traditional designs being manufactured, newer designs are also being developed, both at the initiative of the owners here, as well as importers or customers, who send the desired design on plate or script.

On the other hand the Carpets made at Amritsar are those of fine Moris and Bokharas.

**Carpet Industries in Mirzapur - Bhadohi - Allahabad:**

The area lies to the South of the River Ganges, and in the Carpet world it is known as "Mirzapur - Bhadohi Belt". The major cities and towns in this area are Varanasi (Banaras), Mirzapur, Bhadohi and Allahabad. All these towns are connected by railway and roads. Varanasi is almost half way between Delhi and Calcutta. The soil in these Gangetic Districts is fertile and agriculture is the main occupation. The area is one of the richest and most cultured part of India. Varanasi is on the Ganges, and is the seat of Kashi Vishwanath Temple - a premier place of Hindu pilgrimage. So is Allahabad. Manufactures of this populous belt include expensive brocade and Benaras Silks, brass works, rugs and druggets and hand knotted Carpets. The local name for the woollen Carpet here and in the other places of India is Galicha.

The tradition of Carpet manufacture in Mirzapur - Bhadohi belt is atleast 400 yrs old. Abul Fazl in "Ain-i-Akbari"
(1600 AD) mentions weaving of Carpets in Allahabad and Jaunpur. This is the earliest recorded evidence. The beginning of the Carpet industry in Mirzapur - Shadahi Belt coincides with the period of Shah Abbas the Great, of Persian. Here, as in Agra, the origin of industry is traced back to the early days of the Moghul period in Indian history. The local legend is that a Caravan was travelling on the Grand Trunk Road. It was looted by dacoits, and most of the people killed. A Persian weaver was a part of the Caravan, and he escaped with the help of some local villagers. The villagers gave him shelter. He settled down in the village, and in gratitude taught the villagers the craft of the Carpet making. There is evidence in earlier publications that the Carpet weavers celebrate the last Wednesday in the month after Moharram as the day of the original Persian Carpet Weaver. The practice is no longer in vogue. According to the tradition, the village where he settled was Ghosia and one of the earliest nearby villages to pick up trade was village Madho Singh, where the Carpet trade is practised to this day. In course of time, the Carpet industry covered the entire belt.

Though the area is one of the ancient seats of Hindu culture, the population is mixed. The area still has a large Muslim population. It is amongst the Muslims that Carpet-weaving spread first. Soon the Hindus, Ahirs and
Kewets - an agriculturist class - also took carpet weaving. To this day, Hindus and Musalmans continue to coexist in perfect harmony, playing a common profession. The predominant Hindu castes, high and low are, Bhotya, Ahir, Kewet and Julaha. There is also a happy inter-mingling of Hindus and Muslims among the entrepreneurs. There are also a couple of old British firms working in the field.

Production of Carpets in the Mirzapur - Bhadohi Belt accounts for nearly 95 to 96% of total production of Carpets in India. The other important centres in Kashmir, Agra, Jaipur, Gwalior and Amritsar. These areas particularly Kashmir, produce the finest of Indian Carpets. The average production in Kashmir is around 300 knots per square inch. Production, however, is small. The Mirzapur - Bhadohi Belt specialises in the lower, medium and low fine qualities. Weaving capacity is substantial and production is commercial. The Mirzapur - Bhadohi Belt is by far the most important Carpet area of India.

Mirzapur Carpets came to attention of the world through the great London Exhibition of 1851. At this exhibition Indian Carpets were universally admired not only for their oriental patterns, fine weavers and rich colours, but also for the production in good quantity of acceptable commercial qualities. Towards the later part of the 19th century and the early part of 20th century some British firms, like Tallery, E. Hill and Obetee started commercial production in Bhadohi, Khamaria and
Mirzapur.

The industry has had fluctuating fortunes in the expert market till India attained Independence in 1947. As Mirzapur - Bhadohi Belt account for 95% production of Carpets in India, export of Indian Carpets. The Kashmir and Agra varieties have always had only a small production in India's export trade of Carpets. The following statement gives the export performance of Indian Carpets right from 1947-48:

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1947-48</td>
<td>3.22</td>
</tr>
<tr>
<td>1948-49</td>
<td>2.61</td>
</tr>
<tr>
<td>1949-50</td>
<td>3.31</td>
</tr>
<tr>
<td>1950-51</td>
<td>5.56</td>
</tr>
<tr>
<td>1951-52</td>
<td>5.88</td>
</tr>
<tr>
<td>1952-53</td>
<td>2.80</td>
</tr>
<tr>
<td>1953-54</td>
<td>3.69</td>
</tr>
<tr>
<td>1954-55</td>
<td>3.87</td>
</tr>
<tr>
<td>1955-56</td>
<td>3.97</td>
</tr>
<tr>
<td>1956-57</td>
<td>4.10</td>
</tr>
<tr>
<td>1957-58</td>
<td>4.10</td>
</tr>
<tr>
<td>1958-59</td>
<td>4.60</td>
</tr>
<tr>
<td>1959-60</td>
<td>5.02</td>
</tr>
<tr>
<td>1960-61</td>
<td>4.88</td>
</tr>
<tr>
<td>1961-62</td>
<td>4.42</td>
</tr>
<tr>
<td>1962-63</td>
<td>4.49</td>
</tr>
<tr>
<td>1963-64</td>
<td>5.43</td>
</tr>
<tr>
<td>1964-65</td>
<td>5.66</td>
</tr>
<tr>
<td>1965-66</td>
<td>4.62</td>
</tr>
</tbody>
</table>
Today, the industry is poised for a major break-through. "More hand made druggets are imported from India today than from any other country, except Iran. It should be noted that India has supplanted China, Turkey, Asia and Central Asia in the field", (Carts W. Jacobson-Oriental Carpets - A complete Guide, p. 73). The position today is that India is a major exporter of Indian Carpets to the world markets, next only to Iran, and for the last three or four years to Pakistan. Pakistan has, of late, become a major challenger in the international markets. Although the versatility of Indian Weavers is confined only to Agra and lower Kashmir qualities, Pakistan has had an impressive performance, mainly because of its heavy export incentive schemes in the part, and due to

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
</tr>
</thead>
<tbody>
<tr>
<td>1966 - 67</td>
<td>7.79</td>
</tr>
<tr>
<td>1967 - 68</td>
<td>9.76</td>
</tr>
<tr>
<td>1968 - 69</td>
<td>11.15</td>
</tr>
<tr>
<td>1969 - 70</td>
<td>11.69</td>
</tr>
<tr>
<td>1970 - 71</td>
<td>10.94</td>
</tr>
<tr>
<td>1971 - 72</td>
<td>13.69</td>
</tr>
<tr>
<td>1972 - 73</td>
<td>21.44</td>
</tr>
<tr>
<td>1973 - 74</td>
<td>26.42</td>
</tr>
<tr>
<td>1974 - 75</td>
<td>36.05</td>
</tr>
<tr>
<td>1975 - 76</td>
<td>41.43</td>
</tr>
<tr>
<td>1976 - 77</td>
<td>66.41</td>
</tr>
<tr>
<td>1977 - 78</td>
<td>81.96</td>
</tr>
<tr>
<td>1978 - 79</td>
<td>86.92</td>
</tr>
<tr>
<td>1979 - 80</td>
<td>93.61</td>
</tr>
</tbody>
</table>
the massive de-valuation of Pakistani Rupees recently. The Pakistani rupee is less in value than the Indian Rupee, and this has given to the Pakistani Carpet a strong competitive edge. This problem is a major problem of the Indian Carpet industry at the moment. The Government of India has realised the seriousness of this problem, and has evolved a suitable incentive policy to restore to the Indian Carpet its competitive edge. If this policy can remain stable over a period of years, Indian Carpets can look forward to a very bright future.

In the export market, Indian Carpets have certain strong points in their favour. They are:

(i) Indian knots are always in Persian knots (seneh knots). This is because of the Persian origin of the Industry;

(ii) India is the only country which can produce the finest of knotting in Kashmir, the whole range of Persian designs and Persian qualities from the lowest Hamadan to the highest Kashan, a French Abusson or Soveneerie, the Chinese Peking, the Algerian or Moroccan Berbar, any Cancaisan design, etc..

(iii) Unlike Iran, India is, perhaps, the only country which can produce any Carpet of any size and in exact lengths and breadth of the importing countries demands.

(iv) India has knowledge of all the techniques of processes to establish a large Carpet Industry. It has the
requisite wool and dyes. India has always been a great country in cotton required in warp and weft.

Today, the Mirzapur - Bhadohi Belt is passing through a revolution. Two decades ago, the very low qualities consumed by the British and Australian markets prevailed the production scene of the Mirzapur - Bhadohi Belt. The American market absorbs slightly higher qualities with thicker piles and better wool and in large sizes. The opening of the German market in the early years of this decade has, however, made a big breakthrough. 15 years ago, 5/25 quality (31 knots per square inch) was considered a feat. The producer of 5/25 quality was a great Amir. Today qualities, like 7/52, 8/52 and 10-1/2/48 (126 knots per square inch) are child's play. Bhadohi - Mirzapur is now knocking at the doors of 11/55 and 12/55 qualities - almost a miracle. The products of Mirzapur - Bhadohi are acceptable in the German market - the World's largest single market for oriental Carpets - pricewise, quality-wise, colour-wise, and design-wise.

Name of the Villages and Weavers; Number of Looms in each Village:

A statistical abstract of the District and Block-wise concentration of Carpet Weaving centres, looms and Weavers arising one of the census is given below:
<table>
<thead>
<tr>
<th>District</th>
<th>Block</th>
<th>No. of Villages</th>
<th>No. of Looms</th>
<th>Percentage of Total</th>
<th>No. of Weavers</th>
<th>Percentage to Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>VARANASI</td>
<td>(1) Bhadohi</td>
<td>139</td>
<td>3870</td>
<td>14.48</td>
<td>8800</td>
<td>11.99</td>
</tr>
<tr>
<td></td>
<td>(2) Aurai</td>
<td>131</td>
<td>4940</td>
<td>18.49</td>
<td>14887</td>
<td>20.28</td>
</tr>
<tr>
<td></td>
<td>(3) Sewapuri</td>
<td>55</td>
<td>1038</td>
<td>3.88</td>
<td>2796</td>
<td>3.81</td>
</tr>
<tr>
<td></td>
<td>(4) Baragaon</td>
<td>33</td>
<td>543</td>
<td>2.03</td>
<td>1073</td>
<td>1.46</td>
</tr>
<tr>
<td></td>
<td>(5) Suriawan</td>
<td>115</td>
<td>1947</td>
<td>7.28</td>
<td>5351</td>
<td>7.29</td>
</tr>
<tr>
<td></td>
<td>(6) Gyanpur</td>
<td>121</td>
<td>3100</td>
<td>11.60</td>
<td>8542</td>
<td>11.63</td>
</tr>
<tr>
<td></td>
<td>(7) Deegh</td>
<td>65</td>
<td>1371</td>
<td>5.13</td>
<td>8522</td>
<td>6.16</td>
</tr>
<tr>
<td></td>
<td>TOTAL ..</td>
<td>659</td>
<td>16,809</td>
<td>62.89</td>
<td>45971</td>
<td>62.62</td>
</tr>
</tbody>
</table>

Source: Census of Carpet Weavers and looms 1973-74 by AICMA.

Now the present position of looms and weavers in Bhadohi Block increased from 3870 to 6000 looms and 8800 to 15000 weavers.

***************
MANUFACTURING ASPECTS
TYPES OF CARPET

Carpet can be divided into two types:

(i) Kilim rug
(ii) Woollen rug

(i) Kilim Rug:

The kilim have originated in the Caucasus, when it would have been brought by the nomadic tribes who settled in this mountainous region at some indefinite period. This is hand embroidered rugs, reinforced with a thick cotton yarn to make it suitable for use as a rug for the floor. It is produced also in the southern Australia, more precisely in the region of Karman, Iran, USSR, China Romawa and in a slightly different manner in India.

(ii) Woollen Pile:

This is a very common type of Carpet, which is generally manufactured and exported from Eastern U.P. There are three types of knots universally employed to anchor short pieces of yarn that form the pile. This is also known as oriental rug.

There are further divided into the two categories:

(a) Acid dyed Carpet
(b) Crome dyed Carpet
(a) Acid Dyed Carpet:—This is unwashable Carpet.
(b) Crome Dyed Carpet:—This is washable Carpet.

Now above Carpets have various name according to its designs, which are as follows:

(i) Abusson design
(ii) Bengal design
(iii) Persian design: Lichi, Indo Tabrez, Shiraz, Mayour etc.
(iv) Chinese design
(v) Barbeve designs etc.

Quality of Carpets:

Quality of Carpet depends upon the type of material used and number of knottts per square yard: as the number of knotts increase quality of the Carpets also increase. The quality of the Carpet is represented by number 6/52, 5/40, 4/60 etc.

These numbers represent the number of knots per square yard.

The numerater of each figure represents the weft side and denominator represents the warp side of the Carpet.

The quality of 5/40 means,

\[ \frac{5}{2} \times 20 = 200 \text{ knots per yard in weft side of the Carpet,} \]
figures 2 and 20 are constants for all the number which represent quality.
40 \times 4 \times 20 = 320 \text{ knots per yard in warp side of Carpet}

and no figures 4 and 20 are constants for all the numbers which represent quality.

Therefore total number of knots in one square yard of quality 5/40 = 200 \times 320 = 64,000 \text{ knots}.

Today India makes the highest quality Carpets, along with, of course, low and medium qualities. Foreign importers and connoisseurs of Carpets wonder at the remarkable skill of our weavers. There are about 1.25 lakhs persons are engaged in this industry, of which about 75,000 are weavers. It is estimated that Carpets worth about ₹13/- to ₹14/- crores are being produced every year. More than 90% of the Indian Carpets are exported. The demand for Indian Carpets is constantly on the increasing trend. The problem now is that of production. The "All India Handicraft Board" has taken up schemes for training more weavers. This activity requires expansion. If we could train our women folk in this line, it will be great service done to the future of Indian Carpet Industry. The weaving of Carpets in the Himalayan Region from Ladakh to 'N' also could be developed. Already some production if going on there, the designs woven are essentially central Asian.

The question of quality control on Carpet has been engaging the attention of Government and Industry for quite some time. The Government of U.P. is operating a voluntary
scheme of quality control at various centres including Bhadohi. So far, the coverage of this scheme has not been substantial. The ISI has also formulated Indian standards on Carpets with assistance of technical experts and representative of the industry. Till recently, very little progress has been made on the ISI certification scheme on Carpets. After considering various aspects of export trade, Government of India suggested preshipment inspection for certain qualities of Carpets.

Designing is an important and integral part of a Carpet, for it is this which infuses life and both excites and soothes the Carpet users. Indian Carpets are fancied by foreign buyers because of their colour schemes, varied designs and durable quality. The common designs produced in India have been Persian, French, Abusson, Chinese, etc. Recently, Hamadan type of Carpets have become very popular in West Germany. Designs are mostly provided or approved by the importers in foreign countries and Carpets are woven according to these designs. The Indian Carpet Industries are capable of producing any design or pattern given by the foreign buyers and the skill is available to meet the charged and varied demands.

Carpet Construction:

Nomenclature of hand-knotted Carpet Qualities

Even so many years after the introduction of matric system in the country, the hand knotted Carpet trade and
industry continues to cling to F.P.S. system of measures and calculations. We will restrict our present analysis to the constructional structure of knotting.

In common parlance by the quality of a Carpet is meant the knottage density i.e. the measure of the closeness of weave in a Carpet. This could either be knots per square inch, knots per square yard or knots per square meter. To put a single knot, a pair of warp, threads is necessary. Hence the denser the warp the more number of knots can be placed in a row.

Where the number of warp threads-pairs equal the number of rows of knots in the unit area, the quality is termed a square weave or the construction called "Even". In uneven construction the number of rows of knots in unit area exceed the vertical warp thread-pairs. In the traditional Carpet weaving areas of Kashmir, Amritsar, Jaipur and Agra the common unit for the measure of knottage density is the square inch. Hence a Carpet of 400 knots per square inch would be superior to one of 144 knots per square inch.

The quality construction is given as a multiple of the warp thread-pairs in an inch and the number of rows to the inch. For example:-

<table>
<thead>
<tr>
<th>Quality</th>
<th>Knots per square inch</th>
</tr>
</thead>
<tbody>
<tr>
<td>A 9 x 16</td>
<td>144 9 warp x 16 rows</td>
</tr>
<tr>
<td>B 20 x 20</td>
<td>400 20 warp x 20 rows</td>
</tr>
<tr>
<td>C 11 x 19</td>
<td>209 11 Warp x 19 rows</td>
</tr>
</tbody>
</table>
Here A and C are the 'Uneven' qualities where as B has an 
EVEN Construction and is called a 'square' quality. The 
even construction is usually considered superior to uneven 
knottage. Most Persian qualities have even construction.

Another important feature of the even quality is that nece­
ssarily they must have at least two weft lines - Double weft. 
The first one is usually thicker than the warp and second 
line thinner and very loosely twisted. In some persian 
constructions we come across more than two weft fillers.
This gives the Carpet more strength and a stiffer back - the 
quality construction remaining even and square.

A single knot is called a 'PHANDA' and a lateral row of knots 
a 'PHERA'. A pair of warp threads is termed 'TAR'. Hence 
9 x 16 quality has 9 TAR and 16 PHERAS to the inch.

TAR is the lateral measure and PHERAS the linear 
measure.

Now we can see why children and women are most suited 
to finer quality Carpets. In India where the knots are put 
in by fingers, the thinner and nimble fingers of children and 
and women can penetrate the close warp threads for knotting. 
Thick, stiff and course hands are clumsy and can not achieve 
much knotting speed. This is precisely why in higher Jrani 
qualities a thin hook is employed by weavers to place knots.
Conversion of knots to the square inch to knots to square meter.

Quality 9 x 16 144 knots to the square inch knots to the square feet 144 x 144 = 20736, 10.764 square feet make a square meter. Hence Q. 9 x 16 (144 knots) has 20736 x 10.764 = 223202.3

rounding off 2 lakhs 23 thousand 2 hundred knots to the square meter. 2,23,200 knots per square meter. In many European Countries the customs authorities exempt hand knotted Carpets of over 500 knots to the LINIER metre. This in effect means that in one metre length the number of rows (PHERAS) should be more than 500.

There is no restriction on the number of TARS or warp threads to a meter.
A metre is 100 cm. or \( \frac{100}{2.54} = 39.37 \) inches.

Hence 500 knots/meter \( \frac{500}{39.37} = 12.70 \) knots/inch rounding off, say 13 knots to the inch.

For this reason we find that even though the warp threads (TAR) are only 9, 10, 11 or 12 in Amritsar, Jaipur and Agra qualities the Pheras (rows) to the inch are 16, 18 and 19 as in the following qualities:

9 x 16, 10 x 18, 12 x 18, 11 x 19

Of late we find such qualities as 10 x 13, 10 x 14 and 12 x 14 also being manufactured in all the Carpet weaving centres to
beat this custom's regulation is European countries. Many of the qualities are single weft, loosely woven this pile Carpets really apologies for Carpets made only to meet cost/price restrictions.

Bhadohi Carpets:

The Bhadohi - Mirzapur belt, the biggest Carpet weaving area in the country, has a totally different nomenclature for quality construction. The unit is not the square inch. In fact the unit of measurement is different for Tars and Pheras. Linier and lateral measurement of knots are done on different scales. This is often utterly confusing for a person new to Bhadohi or vice-versa.

There are a few technical terms which have to understood first before we begin comparison. These are:

GAZ (yard) 3 feet or 36 inches
PAUGAZI (1/4 yards) or 9 inches
BIS (20) Multiple of 20
BUTAN (two rows) two pheras.
JUT (2 knots) A pair of knots

The unit for lateral knottage is the GAZ or one yard (36 inches).
The unit for linear knottage is the PAUGAZI, 1/4 yard or (9")
The lateral knots (weft direction) are counted in JUTs (pairs-two knot at a time) in multiples of 20 i.e. BIS.
The linear knots (warp direction) are counted in pairs or RUTANs (2 pheras is a BUTAN).

The qualities are written as

5 BIS 40, 7 BIS 52, 8 BIS 50 or 9 BIS 60.
YARN CALCULATIONS

Woollen Yarn Components in Hand-knotted Carpets:

Few hand-knotted Carpet manufacturers know the theoretical method of calculating woollen yarn requirement for a Carpet.

Knowing the knottage density \( k \), required pile height \( \text{Length of a knot} \), count of woollen yarn and the ply of yarn, one can easily calculate the weight of woollen yarn required for a Carpet. Certain terms need definition and unit have to be fixed to arrive at a standard formulae.

Knottage Density \( K \):

This is defined as the number of knots per square inch in the quality. Say the quality is 9 x 16 the knottage density \( K = 144 \) knots/sq/inch. For Bhadohi notation the multiplying factors have to be used to derive the knottage density.

For example: Quality 9 bis 60
Equivalent notation in JAK (Jaipur-Agra-Kashmir) quality

\[ K = \frac{9 \times 10}{9} \times \frac{60 \times 2}{9} \]

i.e. \( 10 \times 13.33 \) or 133 Knots per square inch.
Length of a Knots:

This is the length in INCHES of the knot including the two leg lengths and looping length. Each knot has 2 legs and the length of the loop around the pair of the warp threads. The looping length varies from quality to quality depending on the thickness of the warp threads. The looping upon the thickness of the warp and weft filling between rows and knots. Similarly the two leg lengths (which should be parallel and equal) vary as per the pile length requirement. Hence the total length of the PHANDA or knot should be considered. This may vary between 3/4" to 3" SYMMOLL. Evidently the woollen yarn requirement should be directly proportional to the length of the knot.

Count of Yarn:

By count of woollen yarn is meant the length of yarn per unit weight. The unit weight may be ounces (or half ounce) as in the F.P.S. system and grammes in G.S. system. The length is measured in yards or metres. The conventional English count is most widely understood unit of measure. Number of yards per half ounce weight of woollen yarn gives this count. The weight of the yarn consumed varies inversely to the count, SYMOL 'C'.

Ply of Yarn:

Woollen yarn may be used in one ply, two ply or three ply or more i.e. no. of standards; one, two or three. The
consumption of woollen yarn by weight increases directly with the ply (numbers). SYMBOL 'P'.

Let us now express the variables as a function of one other:

<table>
<thead>
<tr>
<th>VARIABLES</th>
<th>SYMBOL</th>
<th>UNITS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Knottage density</td>
<td>K</td>
<td>Number/Square inch.</td>
</tr>
<tr>
<td>Length of Knot</td>
<td>L</td>
<td>inches</td>
</tr>
<tr>
<td>Count</td>
<td>C</td>
<td>Yards/half ounce</td>
</tr>
<tr>
<td>Ply</td>
<td>P</td>
<td>Number</td>
</tr>
<tr>
<td>Weight of Woollen Yarn</td>
<td>W</td>
<td>Kg/per square yard.</td>
</tr>
</tbody>
</table>

Weight of Woollen yarn is directly proportional to knottage density.

\[ W \alpha K \quad (a) \]

Weight of Woollen yarn is directly proportional to the length of knots.

\[ W \alpha L \quad (b) \]

Weight of Woollen yarn is inversely proportional to the count.

\[ W \alpha \frac{1}{c} \quad (c) \]

Weight of Woollen yarn is directly proportional to the ply.

\[ W \alpha P \quad (d) \]
Combining (a), (b), (c) and (d) we have:

\[ W \propto \frac{KLP}{C} \]

Let \( N \) be the constant to convert the above function into an equation by combining the various units. Therefore,

\[ W = N \frac{KLP}{C} \]

In order to determine this constant let us rationalise the units. For this let us work out a simple problem.

**Problem:**

Workout the woollen yarn requirement per square yard for quality 10 x 10, using 70 count 3 ply yarn. Assume length of knot as 1.5 inches.

**Solution:**

Quality 10 x 10, knottage Density \( K = 100 \) (number) per square inch.

Count \( C = 70 \) yards per half OZ wt. ply \( P = 3 \) (number)

Length of knot \( L = 1.5 \) inches.

Weight in Kg. per square yards

\[ W = N \frac{KLP}{C} \]

\[ W = N \frac{100 \times 1.5 \text{ inch} \times 2}{\text{Sq.inch} \times 70 \text{ yards/} \frac{1}{2} \text{ Oz}} \]
As W is expressed in K.g. per square yard all the units have to be converted to K.g. or yards.

K. 100/Sq.m. or 100 (144 x 9) per Sq. yard

L. 1.5 inches or \( \frac{1.5}{\frac{12}{3}} \) or 1.5 (\( \frac{1}{36} \)) yards

P. 3 (number)

C. 70 yards per \( \frac{1}{2} \) Oz. or 70 x(2x16x2.2) yard per Kg.

Hence \[ W = \frac{100(144x9) \times 1.5 (1) \times 2}{36} \]

\[ = \frac{100 \times 1.5 \times 2}{70} \times \frac{144 \times 9}{2x16x2.2x36} \]

\[ = \frac{100 \times 1.5 \times 2}{70} \times (0.511) \]

\[ = 2.190 \text{ K.g.} \] Hence 0.511 is the constant \( N \)

Hence \( W = 0.511 \frac{\text{KIP}}{C} \) is the equation

With the change in units for \( W \) the constant 0.511 will also change as below:-

For \( W \) in grammes per square foot.

\[ N = \frac{0.511 \times 1000}{9} = 56.77 \]

For \( W \) in K.g. per square meter

\[ N = \frac{0.511 \times 10.764}{9} = 0.611 \]

Thus we will see that theoretically the requirement of woollen yarn by weight can be easily calculated for unit area of a carpet in particular quality, using a known count and ply of yarn with the help of the above formulae.
A STUDY OF WOOL STRUCTURE

As we know wool is the perfect fibre for making Carpets. Due to serrations on its surface and length of staple, the yarn made from it is particularly strong.

Wool from unimproved sheep which yield light weight fleeces of uneven, coarse and kempy nature is classified in the world as "Carpet Wool". The wool produced in India and other Asiatic countries falls mainly under the Carpet type wool.

In the world-trade Indian wool is described as "East India Carpet Wools". Skirtings, britch and badly cotted fleeces from the crossed sheeps are also included under this type.

Structure of Wool: Wool consists of:
1) Medulla
2) Cortex
3) Epidermis or Cuticle.

Medulla: Medulla is the inner most core and is like a fine hollow cylinder containing pigment matter from which the fibre gets its colours.

Cortex: The next layer, surrounding the medulla is the Cortex
and is composed of many tightly packed and enlarged cells. This promotion provides most of the strength and elasticity to fibres.

**Epidermis or Cuticle:** The third layer consists of extremely flattened cells or scales called as cuticle or epidermis.

In wool the medulla is almost absent. In its place the Cortex extends right to the centre and hence wool fibres present a homogenous appearance. This is very irregular in outline and give the fibres a saw-like or serrated appearance (under microscope). This characteristic of the wool is responsible to a great extent for the felting properties of wool.

**Quality in term of Count:**

With a view of facilitating purchase of wool on the basis of quality, wool shorters, traders have fixed two separate quality standards for the worsted and woollens. These are termed as spinning count and based on spinning properties of wool namely the length of yarn which could be spun from a given weight of wool.

The weight of wool is standardize at one pound and the length of the hanks at 560 yards. If the wool is of a quality that one pound of it could be spun into one standard hank only (560 yards), its quality or spinning count would.
be quoted as 1's. Hence if a wool can yield 32 hanks, its quality is quoted as 32's.

Yarn of 60s would be still finer and one pound of it should measure - 60 x 560 = 33600 yards.

The method of defining yarn in woollen system is slightly different and is quoted as "Skeins". One standard skeins is of sixteen yards and weight one pound. A 8 Skein woollen yarn would mean 128 yards in ten Oz.

Thus one pound of Skein woollen yarn and one pound of worsted yarn will measure 256 and 560 yards respectively.

<table>
<thead>
<tr>
<th>TYPE OF WOOL</th>
<th>QUALITY BASED ON WORSTED COUNT</th>
</tr>
</thead>
<tbody>
<tr>
<td>Super fine Merino</td>
<td>80 S. or 5NM</td>
</tr>
<tr>
<td>Fine Merino</td>
<td>60 S, 64S, 70S.</td>
</tr>
<tr>
<td>Average Merino</td>
<td>40 S</td>
</tr>
<tr>
<td>Carpet</td>
<td>36 S</td>
</tr>
<tr>
<td>Average Crossbed</td>
<td>36 - 44</td>
</tr>
</tbody>
</table>
Fleeces: The fibres coat which covers the skin and which can be shown after a period of growth is called the fleeces. The quality of wool varies in different parts of the fleece. It being coarse in some and softer in other parts. The degree of variation depends upon the care and attention.

Different Types of Wool:

Britch: Hind quarter of the sheep and the portions below the tail—British wool is usually the coarsest in the fleece.

Cotted Wool: Through certain physiological defects during the growth, the fabric felt together and fleeces become cotted. It has to be torn apart in the process of carding.

Bribby Wool: Short wool found under the fore legs of sheep.

Greezy Wool: Raw wool as obtained from sheep without having been cleaned in any way.

Mushy Wool: Wool without any regularity or individuality of staple. The fleece of such wool is more in the form of spiders web, obtained usually from old sheep in bad seasons.

Scoured Wool: Wool that has been washed or scoured and from which most of the impurities are removed.

Kemp: Chalky white lustreless and dead fibres growing with wool.
Noil: Consists of short and broken fibres removed from sheep during the process of combing in the making of top.

Top: A continuous strand of the longer wool fibres straightened-up by combing. Certain manufacturers prefer only the top.

Skirting: The low quality wool as obtained from neck and leg of sheeps.

Silver: In the carding operation, the wool fibres are opened up and separated. Thereafter, they are condensed and delivered in the form of continuous strand or silver.

Twisted Wool: The number of twins and the amount of twist given to the wool during the process of spinning into the yarn.

Factors Considered in Judging Wool:

The following factors are considered in judging wool:

(i) Fineness of diameter of fibres
(ii) Length of staple
(iii) Strength
(iv) Elasticity
(v) Crimp (waviness in the wool)
(vi) Presence of kemp
(vii) Hairiness of medullation of Fibres
(viii) Colour
(ix) Lustre
(x) Felting and shrinking props.
RAW MATERIAL CONSUMMABLE

The main raw materials are cotton and woollen yarn. These are two types:

(i) Hand spun yarn i.e. 30/32 counts
(ii) Mill spun yarn i.e. 30/32 and 60 counts.

These are several spinning mills situated in U.P. i.e. Swadeshi Cotton Mills, Kanpur and

These mills would be sources of raw materials for cotton yarn.

Woolen yarn is arranged from Delhi, Ludhiyana, Jaipur, Jodhpur and Kanpur etc. The dyes are arranged from the authorized dealers at Kanpur and Delhi etc. Actually raw materials are available from out of the state, no difficulty is anticipated in the procurement of raw-materials. At present a big spinning mills M/s Bhadohi woollen is constructed very recently at Bhadohi under joint production of U.P.E.C. and B.I.C.

Wool is the Life of Carpets:

Wool is the one of the basic raw materials required to weave a Carpet. Not in India very much, but in other countries. Some times wool is used as a work also. To get
a lasting shine in a well washed Carpet; it is a very essential that good quality of wool is used. In India Bikaner has got some of the best wools, such as MAGRA, CHOKHLLA and NALI.

Chart Showing Details of Above Three Grades of Wool:

<table>
<thead>
<tr>
<th>GRADE</th>
<th>AREA OF PRODUCTION</th>
<th>FINENESS</th>
<th>APPROX. LENGTH</th>
<th>COLOUR</th>
<th>REMARK</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Magra</td>
<td>South Western part of Bikaner (head clay soil)</td>
<td>Medium</td>
<td>5&quot;</td>
<td>Very white and pale yellow</td>
<td>Naturally clean wool</td>
</tr>
<tr>
<td>2. Chokhalla</td>
<td>South Eastern part of Bikaner (Sandy truck)</td>
<td>Fine</td>
<td>4&quot; to 5&quot;</td>
<td>White, yellow and pale yellow</td>
<td>Contain</td>
</tr>
<tr>
<td>3. Nali</td>
<td>Whole Northern &amp; Eastern parts including canal area.</td>
<td>Medium</td>
<td>4&quot;</td>
<td>Cream White &amp; Deep Yellow</td>
<td></td>
</tr>
</tbody>
</table>

Kashmir Marino Wool is claimed to be the 'high quality' matching with the wool produced in Australia, South Africa, Uruguay and Argentina. Therefore, entire indigenous sheep population is proposed to be converted into Kashmir Marino and other high wool and mutton yielding species by the end of next plan.
Dyeing of Woollen Carpet:

As we are aware, woollen Carpets are woven out of the dyed Carpet yarns. There are two types of Carpets viz., 'Non-Washable' and 'Washable'. 'Non washable' Carpet have a wider choice of selection of dyestuffs as the dyed yarn, so obtained does not require the wet fastness properties particularly to the chemicals used in the chemical wash process. However, for 'Washable' Carpets, the selection of dyes are limited to the ranges which all exhibit all round wet fastness properties together with resistance of chemicals (Bleaching powder and caustic soda) used in chemical washing.

'Non-washable' Carpet can be dyed by conventional acid dyes, chrome dyes, acid milling dyes etc.
CHEMICAL WASHING OF CARPETS

The aim of chemical washing is to impart lustrous, silky features of old oriental Carpets to freshly manufactured material.

The techniques for such finishes are jealously guarded trade secrets, although it is generally accepted that the process consists of an alkali soak to 'age' and soften the wool, followed by scale removal with a chlorinating agent and mechanical brushing to remove loose fibre and produce surface lustre. Although hand knotted Carpets are usually washed in rather a primitive way on the floor, it is increasing practice now-a-days for them to be imported to Europe in the unwashed state and treated in sophisticated machinery, for example, large tumbling machines.

The finished Carpet pile usually has a 'lean' in the last ¼" caused by scraping or brushing. Chemical damage is mainly on the surface at the tips of the yarn tufts. Indeed, microscopic examination of commercial oriental carpet pile has shown that although scales of the wool fibre are absent at the surface, much of the lower part of the pile is relatively untouched. This suggests the process is essentially a surface treatment and lustre is obtained by
mechanical action rather than chemical attack alone.

Any treatment of wool fibre with caustic soda and bleach must cause damage with some subsequent loss of carpet durability properties. In the case of oriental carpets, however, this fact is relatively unimportant on two counts.

The major objective is to achieve a quantified reliable method of chemical washing, whether manual or in existing mill machinery, which will give reproducible results as well as silkiness, lustre and colour modification.

There were three promising ones investigated more fully. These were:

1. Permanganate/DCCA Wash
2. Hypochlorite wash under mild acid conditions
3. Alkali wash followed by hypochlorite treatment

Other methods involving more elaborate wash cycles or chemical systems, or those employing highly specialised equipment such as the potrotor polishers were abandoned.

Methods:

1. Permanganate and DCCA Wash: DCCA, which is the sodium salt of dichlorosocyanuric acid is available commercially as Fichlor clearon (Fisons). It is used in conjunction with potassium permanganate as a chlorinating agent. DCCA may be used alone but the treated carpet is often severely yellowed with a harsh handle. The presence of potassium
permanganate eliminates yellowing and gives a carpet with an acceptable handle. A reduction after treatment with sodium metabisulphite is essential to remove the brown-purple colour of the permanganate. This treatment is fairly expensive in terms of reagents used and time of treatment. However, a high degree of lustre is obtained with no yellowing of undyed wool and little loss of colour. If a particularly soft handle is required, a softening agent may be applied in the final rinse.

This method enables the chemical washing to be exactly controlled and the use of chemically stable DCCA eliminates the need for monitoring stock chlorine solution of variable composition. The odour from the treatment bath is very much less than from baths involving calcium or sodium hypochlorite. To allow maximum control to be exerted, the process should preferably be carried out in a winch or tumble washer. The general recipe is: product of

\[ \times \% \text{ Fichlor clearon (o.w.f.) } \times \text{ multiplied by} \]

\[ 2\% \text{ Potassium permanganate (o.w.f.) (X may vary between 2 and 10\%)} \]

The liquor is set at 20°C and pH 5.0-5.5 with acetic acid. The goods are entered and thoroughly wet out before the above reagents, dissolved in warm water, are added to the bath. After ten minutes, the temperature is raised slowly
to 40°C and the pH adjusted to 4.0 with acetic acid, when exhaustion is complete, the liquor fails to turn starch iodide indicator paper blue. The carpet is then rinsed and given a reduction treatment consisting of:

- 5% Sodium metabisulphite (O.W.f)
- pH 4.5 (adjusted with hydrochloric acid)
- 10 minutes at 40°C
- Rinse

This removes the brown stain of manganese dioxide from the carpet. The finish obtained depends greatly on factors other than reagent concentration. Liquor ratio, the nature of agitation or speed of rotation and quality of Carpet all influence the result.

The colours tend to be modified only to a small extent, but a mild caustic soda rinse for 10 minutes at 50°C can quickly modify the colouration without affecting the lustre.

2. **Mild Acid Hypochlorite Wash:** This method makes no use of an alkaline wash and thus gellowing, dye stripping and excessive fibre damage are eliminated. The handle is good but the lustre only moderate. This method ages and modifies the carpet colour without extensive damage or producing a high sheen.

The general method-

The goods are watted and 2-10 gl-1 active chlorine as sodium hypochlorite is added. After 10 minutes the pH is adjusted
to 4.0-4.5 with acetic acid and the carpet is run for a further 20 minutes. The carpet may then either be thoroughly rinsed with cold water or given an antichlor as follows:

1-3 g l\(^{-1}\) sodium metabisulphite
2 cm\(^3\) l\(^{-1}\) hydrochloric acid
40°C for 10 minutes
Rinse.

3. Alkali and Hypochlorite Wash: This is, apparently, the basis of most commercial oriental wash treatments by European importers who buy unfinished hand knotted carpets from the East and finish them before re-selling.

Methods vary enormously, no doubt depending upon the quality of goods, the degree of ageing required and personal preference. The main problems associated with this treatment are excessive fading, yellowing of undyed fibre, loss of fibre, and felting. It is not at all difficult to ruin a carpet by over treatment in this manner.

Work with machine woven face to face carpets with a less dense pile than some hand knotted carpets has led to the following recipe being formulated:

Stage 1 - Alkali Wash: 1:5 g l\(^{-1}\) caustic soda solution at room temperature is prepared and the carpet entered for 10-60 minutes. Depending upon the machinery used.
Stage - 2 - Through Rinsing: The carpet is thoroughly rinsed with scraping or brushing to lay the pile.

Stage 3 - Hypochlorite Wash: 4-12 gl⁻¹ active chlorine as sodium hypochlorite at room temperature is prepared and the carpet immersed for 10-60 minutes, again depending upon the nature of agitation.

Stage 4 - Rinse or Antichlor: The carpet can either be thoroughly rinsed with cold water, or, preferably, given an antichlor treatment with 1-3 gl⁻¹ of sodium metabisulphite 40°C and pH 4.3 for 10 minutes.

If the treatment is carried out in a horizontal trough or bath, then immersion times need to be greater than if a winch tumble washer of flow bath is employed.

Liquor Ratio:

The liquor ratio of the above treatments varies greatly depending upon the equipment being employed. Long liquor ratios of 30-70:1 may be used with large carpet winches or drum washers, yet if the carpet is treated in a shallow trough, the liquor ratio is 5-10:1.

If the liquor ratio is high, then more reagent is present and the carpet may be subjected to excessive damage if the immersion time is extended. If the immersion time is not sufficient to allow exhaustion, wastage may be high.
RENUMERATION SYSTEM FOR HAND-KNOTTED CARPETS

The practical name of remuneration is called as "Dehari". There is no uniform policy for "Dehari", it varies according to the quality of carpets. The basic concept of 'Dehari' is-

"Higher Density of knots leads higher Dehari"

'Dehari' Calculations and Its Techniques:

Standards

6000 knots = one 'Dehari'

Value of 'Dehari' in terms of Rupee-
Under 32000 knots per square meter - Its Dehari would be Rs.7/- to 10/-.
Above 32,000 knots per square meter - Its Dehari would be Rs.11/- to 20/-

Example: Suppose we have to pay Dehari of 5/40 quality carpet.

\[
\begin{align*}
5 & \times 2 \times 40 = 200 \text{ in weft} \\
40 & \times 4 \times 20 = 320 \text{ in warp}
\end{align*}
\]

Total number of knots in one square meter would be

\[200 \times 320 = 64,000 \text{ knots}\]

Since, 6000 knots = One Dehari

Therefore, 64000 knots = \(\frac{64000}{6000} = 10.67 \text{ Dehari in one Sq.mt.}\)

The quality of carpet is above 32,000 knots per Sq. meter so its one Dehari would suppose to be Rs.15/- app. Then total money would be paid for one meter carpet of 5/40 quality are 

\[10.67 \times \text{Rs.}15 = \text{Rs.}161/- \text{ approximate.}\]
FINISHING OF WOOL CARPETS

The finishing of carpets is an essential requirement in the conversion of a carpet ex-loom state, into a saleable product in the shop. Infact, in the case of tufted and other non-traditional carpets, there are not a carpet until they have been passed through the finishing processes. The degree, type and quality of finishing vary with the type of carpet, materials of manufacturer, price and quality range and are often dictated by the market in which, they are sold. Every finisher has his own method based on years of experience, and a detailed knowledge of his firms customers requirements.

Carpet can be divided into three main Groups, namely:

(1) Traditional - Wilton (Wire)
   Wilton (Face to face)
   Gripper Axminster
   Spool Axminster etc.

Availability of Skill & Training:

This industry requires different types of skilled workers for the complete process of manufacturing, such as weavers, clippers, embossers, repairers, draftsmen, painters, dyers, dye of staff and semi skill for wool sorting, spinning,
carding, cotton yarn, twisting etc. Besides carpet weavers all other type of skills and semi-skills are easily available in the area. In order to meet growing demand for carpet export, Government of India is opening training centres for training in the art of carpet weaving to unskilled.

There are two Government Institutions for the same purpose at Bhadohi:-

(i) U.P. Export Corporation Ltd.
(ii) All India Handicraft Board, New Delhi.

**Employment:**

The carpet manufacturing industry at Bhadohi employs two categories of workers for carrying out the functions involved in the manufacturing of hand-knotted woollen carpets. The regular workers are employed to work within the factory premises, whereas, the contract workers may be asked to work within the factory premises, through they generally work outside the factory premises.

Further there are permanent employees of the unit, while the latter, are employed on a casual basis that is, they are employed as and when required.

The composition of both the regular and contract workers varies from one unit to another depending upon its size, volume of business etc. During the survey of the units at Bhadohi it was found that the units which fall under the Factory's Act 1948
have a work force which constitutes 4% of regular workers and 96% contract labours and that of other units the work force constitutes 2.5% regular workers and 97.5% contract workers.

Thus this industry on an overall glimpse employs 6.2% regular workers and 93.8% contract workers. The total classified employment figures are shown in the table below:

Table Showing Classified Employment in the Carpet Manufacturing Industry at Bhadohi:

<table>
<thead>
<tr>
<th>NUMBER OF EMPLOYEES</th>
<th>Regular</th>
<th>Contract</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Units under factory's</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Act</td>
<td>429</td>
<td>7400</td>
<td>7829</td>
</tr>
<tr>
<td>Other Units</td>
<td>31</td>
<td>1130</td>
<td>1161</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>460</strong></td>
<td><strong>8530</strong></td>
<td><strong>8990</strong></td>
</tr>
</tbody>
</table>

Source: Researcher's field survey.
TRAINING OF THE WEAVERS

Under All India Handicrafts Board, seventy six weavers training centres (20 are not functioning) are running in different District: Unnao, Shahjahanpur, Jaunpur, Varanasi, Mirzapur, Allahabad, Pilibhit, Pratapgarh and Rai Bareilly in U.P. and some other centres in Kashmir for training fresh male weavers. In one centre there are 50 trainees. Period of training is one year by the prescribed syllabus.

<table>
<thead>
<tr>
<th>YEAR</th>
<th>CENTRE OPENED</th>
<th>NO. OF TRAINEES ADMITTED</th>
</tr>
</thead>
<tbody>
<tr>
<td>1969-70</td>
<td>2</td>
<td>100</td>
</tr>
<tr>
<td>1974-75</td>
<td>4</td>
<td>300</td>
</tr>
<tr>
<td>1975-76</td>
<td>20</td>
<td>1300</td>
</tr>
<tr>
<td>1976-77</td>
<td>30</td>
<td>2800</td>
</tr>
</tbody>
</table>

It is clear from the above figures that All India Handicrafts Board is taking more interest in increasing training centres for training more weavers. The carpet industry has set a target of Rs. 50 crores exports during the current year and
it hopes to achieve Rs.100 crores exports by the year 1980-81, which is possible by adding nearly 40,000 carpet weavers during the next 3 years. For training 40,000 weavers, it is essential to open more training centres in future.

There is a large scope for introducing finer weaving with Taleem System. The All India Handicrafts Board may be persuaded to take up a programme for large scale introduction of finer weaving to weavers in their own houses and looms by deputing master weavers from Kashmir and Amritsar to such looms, who may be willing to learn weaving of finer carpets. It is estimated that the output of weavers may be doubled and their income may increase up to three times with this system. It is therefore, in the interest of the industry itself to use all possible pressure of All India Handicrafts Board to introduce finer weaving in this area with greatest possible to successfully train female weavers. However, in view of the persistent demand for increase in weaving charges, it would be a great service for carpet industry to train female weavers for weaving carpet. So that the wage structure could be maintained at a satisfactory level.
FINANCIAL ASPECTS
SOURCE OF FINANCE

The Need:

Handicrafts play an important part in the economy of our country. In addition to provide employment to lakhs of people they uphold India's reputation for excellent craftsmanship. We owe a greatest deal to India's master craftsman who has existed despite diverse difficulties. For his monetary needs he depended on money lenders, whose terms, more often than not, were quite exacting. To-day craftsman faces new social and economic problems. His increasing need for easy and adequate credit is one of them.

All industries big or small need credit. The small industries are in or more difficult position as they can not generally obtain credit from the normal institutional source mainly because they can not furnish the required security. The condition prescribed by orthodox banking practices are too rigid, and are not at all suitable for handicrafts and other cottage and small industries. As a result bulk of the handicrafts industries have still to depend on the master craftsman or the village money lenders for their credit requirement. The rate of interest charged by them is very high and uneconomic and in addition to this the craftsman's
freedom for production and sale of goods is also curtailed considerably. Total credit requirements of handicrafts Board is, however, continuing its efforts to collect this information through state Departments of Industries and its own survey.

The Present Source of Finance:

Apart from the local money lenders, Master Craftsman and dealers, the Handicraft industries can at present look up to the following sources, though the amount actually flowing to handicraft from these resources is not appreciable.

1. Assistance under state Aid to Industries Act.
2. Assistance from the centres (Board) through State Scheme.
3. Indian Handicrafts development corp.
5. Cooperative Bank
6. Commercial Bank
7. State financial corporations.

Woollen Carpet Industry and Its Requirements of Finance:

Woollen Carpet are one of the biggest foreign exchange earners among handicraft items in our country. Total exports of woollen carpets including rugs, druggets, and nomadahs reached Rs.36 crores in 1974-75 as against Rs.26.4 crores in 1973-74 and Rs.21 crores in 1972-73. The provisional figures of export during the first seven months of the current
financial year shows a decline as compared to the same period of the previous year, which is quite a disturbing indication.

Bhadahi and Mirzapur area in East U.P. is most important Carpet manufacturing centre in the country and it is estimated the 85% of the total exports of Indian carpets are produced in this area and it is mainly a cottage industry. The other important centres of carpets productions are Srinagar (J & K), Amritsar (Punjab) Panipat (Haryana), Jaipur (Rajasthan), Agra and Shahjahanpur (U.P.) Obra and Daud Nagar (Bihar), Elura and Warangal (Andhra Pradesh), Walajpat (T & N) and Benglore (Karnataka). The carpet industries in India has been progressively growing and production at various centres are estimated to have gone up by 100% to 300% during the last decade.

Production:

Carpets are produced in different sizes and in different qualities according to the market demands. The quality of carpet is determined by the number of knots of the pile in square inch and also on the strength and lustre of the woollen yarn used for the pile and the type of dyestuff used.

According to the quality, the price of a carpet is fixed. The raw materials count for a major share in the cost of production. The cost of the raw materials have been ranging from 60% to 70%, except in the case of high priced carpets where labour charges account for even upto 40% to 50%
of the cost of a carpet.

Prices of the raw materials and also the labour charges have been increasing in rapid studies during these recent years. This has necessitated the manufactures to seek increased capital for their day-to-day business.

The finished carpets are duly examined and packed for exports in alkatene papers and two layers of gunny cloth (or hessian cloth) after they have been certified by the export inspection Agency at each place for the correct specifications and quality. The packed carpets are then labelled and numbered and shifted to the port cities by rail or by road for enshipment to the different places of over-seas destinations. Some of the fine carpets; especially the chemically washed are despatched abroad by air also.

The entire processes of production to the final despatch overseas takes six to eight months to complete the cycle of production to export of a single carpet.

Finance and Credit Facilities:

The carpet industry is fully dependent on high capital investment commensurate with the annual production capacity of an exporter and his experts. Besides the investments on buildings and premises, dyeing machinery and other fixtures and equipments, heavy capital is required for purchasing raw materials, packing materials and payment of labour charges.
In the carpet industry, since so many processes of manufacture are involved in stages, the money remains blocked for a very long period i.e. at least six months.

The names of the important banks in the carpet manufacturing areas of Bhadohi and Mirzapur who finance the manufacturing-cum-exporting firms are as under:-

(1) The State Bank of India
(2) The United Commercial Bank
(3) The Union Bank of India
(4) The Allahabad Bank
(5) The Bank of India
(6) The Punjab National Bank

The Handicrafts Board has been in touch with the Reserve Bank of India at the highest level and has requested for certain liberalization in the present policy of extending credit to the carpet industry. The main points which have been taken up by the Board are as under:-

a) Enhancing period of pre-shipment and post-shipment credit from 90 days to 180 days in both the cases at 11.5% interest.

b) Enhancing the period of 15 days provided under F.E.D.A. rules for repatriation of export proceeds of "Blight Bills" to 30 days so that the concessional rates of interest on such Bills is available for at least 30 days.

c) Longer times taken by the Banks allotting credit limits to
carpet exporters; and

d) availability of credit on "need based" basis.

Cash assistance available against export of woollen carpets till 31st March 1979.

<table>
<thead>
<tr>
<th>Export products</th>
<th>Rate of each compensatory support as on percentage of FOB Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Woollen Carpets, rugs chain-stitched rugs, tapestry rugs named as (excluding those with 30% or less wool content) and goat hair patties, woollen mats and strips whose F.O.B. value is less than ₹150/- p.s.m.</td>
<td>50%</td>
</tr>
<tr>
<td>2. Woollen Carpets, rugs, chain-stitched rugs, tapestry rugs, nomadahs (excluding those with 30% or less wool content) and goat hair patties, woollen mats and strip whose F.O.B. value is above ₹150/- p.s.q. meter</td>
<td>20%</td>
</tr>
<tr>
<td>3. Druggets and Dwories</td>
<td>10%</td>
</tr>
</tbody>
</table>
GOVERNMENT INCENTIVES

Carpet is a biggest handloom cottage industry of the country which earns valuable foreign exchange for India. So in order to increase the expert, Government of India gives the various incentives to exporters, which are as follows:

1) Cash incentive : 20% of the export value
2) Duty draw back : 0.35 pairs per k.g. of the new weight of the carpet
3) Import licence : Import licence of value 10% of the export value subject to condition of actual used either party or transfery.

Cash assistance is available at the following rates against export of woollen carpets and handicrafts till 31st March 1979.

<table>
<thead>
<tr>
<th>Export products</th>
<th>Rate of cash compensatory support as on percentage of F.O.B. value</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Woollen Carpets rugs</td>
<td>5%</td>
</tr>
<tr>
<td>chain stridred rug,</td>
<td></td>
</tr>
<tr>
<td>tapestry rugs, hâmdas</td>
<td></td>
</tr>
<tr>
<td>(excluding those with</td>
<td></td>
</tr>
<tr>
<td>30% or less wool content)</td>
<td></td>
</tr>
<tr>
<td>and goat hair parties</td>
<td></td>
</tr>
<tr>
<td>woollen matsand strips</td>
<td></td>
</tr>
<tr>
<td>whose FOB value is less</td>
<td></td>
</tr>
<tr>
<td>than Rs.150/-p.s.m.</td>
<td></td>
</tr>
<tr>
<td>Export products</td>
<td>Rate of cash compensantory support as on percentage of F.O.B. Value</td>
</tr>
<tr>
<td>-------------------------------------------------------------------------------</td>
<td>---------------------------------------------------------------</td>
</tr>
<tr>
<td>2. Woollen carpet, rugs chain stitched rugs, tapestry rugs handas (excluding those with 30% or less wool content) and goat hair paties, woollen mats and stripes whole F.O.B. value is above ₹150/- P.S.M.</td>
<td>20%</td>
</tr>
<tr>
<td>3. Druggets and duries ---</td>
<td>10%</td>
</tr>
<tr>
<td>4. Handicraft (All item covered) under product group 'H' in the ITC policy for registered experters except real silver badla or/and lanetta (real silver raw-material)</td>
<td>15%</td>
</tr>
</tbody>
</table>

From All India Handicraft Board New Delhi

Export Credit and Guarantee Corporation (E.C.G.C.):

Export Credit and Guarantee Corporation (ECGC) is a company, fully owned by the government of India. It provides a service which is not available from commercial insurance companies. It is under the administrative control of the Ministry of Commerce and is run by a Board of Director representing Government, Industry, Trade, Banking and other interests.

ECGC is administered on commercial lines. It charges premium for its insurance and guarantees but keeps the rates
as low as possible. Its aim is to place the exporters in a position to compete effectively in the world market.

Competition is keen in the world market today. An overseas buyer is a valued customer sought after by exporters of many countries. Winning him over is difficult. The exporter has to maintain high standards in quality, service and delivery. And the buyer may bargain hard. He may also ask the seller for credit terms.

Giving credit generally poses two problems to an exporter. He should, firstly, find enough money to offer credit terms to his overseas buyers; secondly, he should be prepared to take the risks involved in doing business with a foreign buyer who may be thousands of miles away and of whom he has at best imperfect knowledge.

It is in solving these twin problems that ECGC can help the exporter, ECGC provides guarantees to the financing bank so that the exporter gets adequate credit facilities to expand his business.

Covers Issued by ECGC:

The covers issued by ECGC could be divided broadly into four groups

1) Standard policies issued to exporters to protect them against the risk of not receiving payments while trading with overseas buyers on short term credit;
ii) Specific policies designed to protect Indian firms against risk of not receiving payments in respect of (a) exports on deferred payment terms (b) services rendered to the foreign parties; and (c) construction of workers undertaken abroad; iii) financial guarantees issued to banks against the risks involved in providing credit to exporters and iv) Special schemes viz. Transfer Guarantee, Insurance covers for Buyer's Credit, Line of Credit, Joint ventures, and overseas investment.

Standard Policies:

Under its policies intended to protect the exporters against overseas credit risks, ECGC bears the main brunt of the risk and pays the exporter 90% of his loss on account of 'Commercial' and 'Political' risks.

II - Financial Guarantees:

Exporters require adequate financial support from banks to carry out their export contracts effectively. ECGC's guarantees to the banks protect the banks from losses on their lending to exporters.

Five Guarantees have evolved for this purpose:

i) Packing Credit Guarantee;
ii) Post-shipment Export Credit Guarantee;
iii) Export finance Guarantee;
iv) Export production finance Guarantee; and
v) Export Performance Guarantee.
These guarantees give protection to the banks against losses due to non payment by an exporter arising from his insolvency or default. ECGC pays the bank three-fourths of the less in the case of the expert finance Guarantee, post-shipment. Export Credit Guarantee and Export performance Guarantee and two thirds of the less in the case of the rest.

The corporation agrees to pay 75% of the loss to bank which offer all their pre-shipment accounts under a whole turn-over packing credit Guarantee.
MARKETING ASPECTS
H.H.E.C.'s CONTRIBUTION IN THE CARPET EXPORTS

The H.H.E.C. is a public sector organization which has been assigned the role of the premier export house in the country for the expansion and diversification of Handicrafts and Handloom products. As these products are mostly manufactured by the weaker section of society in small bulk, the H.H.E.C. has to mobilise these products and sell them in the foreign markets which the small manufacturers are unable to do so both economically and efficiently due to their limited resources and lack of sufficient technical knowledge about exports.

Briefly stated, the role of H.H.E.C. has two dimensions—Trading and Export promotion. To what extent has this premier expert house succeeded in playing this role can be judged from the analysis of Export data which the researcher was able to collect. Statistics relating to the foreign trade have been collected from the following organizations:

1. Handicrafts and Handlooms Export Corporation of India Ltd., New Delhi.
2. All India Handicrafts Board, Ministry of Industry, New Delhi.
3. Indian Institute of Foreign Trade, New Delhi.
4. Monthly statistics of Foreign Trade of India Volume I – Published by Directorate of Commercial Intelligence &
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Statistics, Calcutta.

5. Other periodicals.

Role of H.H.E.C. in Export Trade:

Here, the researcher would make an attempt to analyse data relating to total exports of Handicrafts* and the Exports of woollen carpets with a view to determining the volume of Exports and the trends emerging out of them. This has been done for a period of five years, i.e. from 1974-75 to 1978-79 for which detailed information was available.

(1) Export of Carpets in the Context of Total Handicrafts Export from India:

TABLE - 1

Percentage Share of Carpet Export to total Handicraft Experts

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Export of Handicrafts from India (Rs. in crores)</th>
<th>Export of Carpets from India (Rs. in crores)</th>
<th>Percentage of column (3) to (2)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>92.33</td>
<td>36.11</td>
<td>39.1</td>
</tr>
<tr>
<td>1975-76</td>
<td>105.56</td>
<td>41.43</td>
<td>39.2</td>
</tr>
<tr>
<td>1976-77</td>
<td>169.82</td>
<td>66.41</td>
<td>39.1</td>
</tr>
<tr>
<td>1977-78</td>
<td>199.87</td>
<td>81.96</td>
<td>41.0</td>
</tr>
<tr>
<td>1978-79</td>
<td>215.00</td>
<td>86.92</td>
<td>40.0</td>
</tr>
</tbody>
</table>

*Handicrafts: Handicrafts include a wide range of products made by hand or by simple tools, such as carpets, jewelry, pottery, glassware, textiles, and wooden items. Export of these products contributes significantly to the country's foreign exchange earnings.
A study of above table shows that during the last five years the export of carpets in total exports of Handicrafts has remained at about 40% though is a definite sign of increase. Briefly stated, about 2/5 of our Handicrafts Export is of Woollen Carpets, rugs and druggets etc. This shows the relative importance of this item on the Handicrafts Exports list.

**TABLE - 2**

Index numbers of Export of Handicrafts and Export of Carpets

<table>
<thead>
<tr>
<th>YEAR</th>
<th>Export of Handicrafts from India (Rs. in crores)</th>
<th>INDEX</th>
<th>Export of Carpets from India (Rs. in crores)</th>
<th>INDEX</th>
<th>Difference (Col.5-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>92.33</td>
<td>100.0</td>
<td>36.11</td>
<td>100.0</td>
<td>-</td>
</tr>
<tr>
<td>1975-76</td>
<td>105.56</td>
<td>114.3</td>
<td>41.43</td>
<td>114.7</td>
<td>+0.4</td>
</tr>
<tr>
<td>1976-77</td>
<td>169.82</td>
<td>183.9</td>
<td>66.41</td>
<td>183.9</td>
<td>-</td>
</tr>
<tr>
<td>1977-78</td>
<td>199.87</td>
<td>216.5</td>
<td>81.96</td>
<td>227.0</td>
<td>+10.5</td>
</tr>
<tr>
<td>1978-79</td>
<td>215.00</td>
<td>232.9</td>
<td>86.92</td>
<td>240.7</td>
<td>+ 7.8</td>
</tr>
</tbody>
</table>

The analysis of the above table unmistakably points out that Exports of both the Handicrafts as a whole and carpets are showing an upward trend, though export of carpets has stopped forward. This is evident of the fact that the Export of Carpets has been gaining more and more importance in the Indian Economy.
## TABLE - 3

Year to year variation in Export of Handicrafts and Export of Carpets.

<table>
<thead>
<tr>
<th>Year</th>
<th>Export of Handicrafts from India (Rs. in crores)</th>
<th>%age increase over previous year</th>
<th>Export of Carpets from India (Rs. in crores)</th>
<th>%age increase over previous year</th>
<th>Difference (Col.5-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>92.33</td>
<td>-</td>
<td>36.11</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1975-76</td>
<td>105.56</td>
<td>14.3</td>
<td>41.43</td>
<td>14.73</td>
<td>+0.40</td>
</tr>
<tr>
<td>1976-77</td>
<td>169.82</td>
<td>60.88</td>
<td>66.41</td>
<td>60.29</td>
<td>-0.59</td>
</tr>
<tr>
<td>1977-78</td>
<td>199.87</td>
<td>15.03</td>
<td>81.96</td>
<td>23.41</td>
<td>+8.39</td>
</tr>
<tr>
<td>1978-79</td>
<td>215.00</td>
<td>7.03</td>
<td>86.92</td>
<td>6.05</td>
<td>-0.98</td>
</tr>
</tbody>
</table>

The above table has been drawn up to demonstrate year to year variation in the Export of Handicrafts and the Exports of Carpets. A study of this table shows that though these variations are not showing the same amount of increases or decreases from year to year, yet there is ample evidence of significant increase in Export in the subsequent years as compared to previous year especially in the case of the carpets. It is a clear sign of growing importance of carpets in the Export trade of Handicrafts.

2. **Total Export of Carpets From India And The Contribution of H.H.E.C. There-in:**

After having analysed the total Export position of
Handicraft as a whole and the Export of Carpets in particular in India, let us now study the contribution of HHEC in regard there to.

**TABLE - 4**

Share of HHEC's Carpet Export in the Total Export of Carpets in India.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Export of Carpets from India (Rs. in crores)</th>
<th>Export of Carpets by H.H.E.C. (Rs. in crores)</th>
<th>Percentage Share of Column 3 to 2</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>36.11</td>
<td>3.25</td>
<td>9.0</td>
</tr>
<tr>
<td>1975-76</td>
<td>41.43</td>
<td>6.61</td>
<td>16.0</td>
</tr>
<tr>
<td>1976-77</td>
<td>66.41</td>
<td>8.87</td>
<td>13.4</td>
</tr>
<tr>
<td>1977-78</td>
<td>81.96</td>
<td>9.40</td>
<td>11.5</td>
</tr>
<tr>
<td>1978-79</td>
<td>86.92</td>
<td>8.82</td>
<td>10.1</td>
</tr>
</tbody>
</table>

During the period under review the HHEC's share in the total Carpet Exports is found to be varying between 9.0% and 16.0%. This is evident of the fact that at least 10% of the carpet Exports are being handled by this public sector undertaking. But it is further to be noted that during the last 3 years the share has received a set back. This needs to be examined how this share can be further stepped up. Even then the position that stands today is that HHEC has maintained
its position of being the single largest Exporter of Hand-knotted woollen carpets from India for which it has received Trophies from Wool and Woollen Export promotion council.

**TABLE - 5**

Index numbers of Exports of Carpets from India and HHEC.

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Exports of carpets from India (Rs. in crores)</th>
<th>Index</th>
<th>Exports of Carpets by H.H.E.C. (Rs. in crores)</th>
<th>Index</th>
<th>Difference Col.(5 to 3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>36.11</td>
<td>100.0</td>
<td>3.25</td>
<td>100.0</td>
<td>-</td>
</tr>
<tr>
<td>1975-76</td>
<td>41.43</td>
<td>114.7</td>
<td>6.61</td>
<td>203.3</td>
<td>88.6</td>
</tr>
<tr>
<td>1976-77</td>
<td>66.41</td>
<td>183.9</td>
<td>8.87</td>
<td>272.9</td>
<td>89.0</td>
</tr>
<tr>
<td>1977-78</td>
<td>81.96</td>
<td>226.9</td>
<td>9.40</td>
<td>289.2</td>
<td>62.3</td>
</tr>
<tr>
<td>1978-79</td>
<td>86.92</td>
<td>240.7</td>
<td>8.82</td>
<td>271.3</td>
<td>30.6</td>
</tr>
</tbody>
</table>

The Index numbers of exports of Carpets from India and those by H.H.E.C. show that there has been a greater increase in the Export performance of the latter as compared to the former. This implise that on the whole the performance of the H.H.E.C. in this regard has been commendable, but it is also to be noted at the same time that the rate of increase has not maintained the same price from the year to year. In the 1978-79 the Exports done by the H.H.E.C. have actually declined as compared to the previous year and this obstructs
the steady growth which we witness between 1974-75 and 1977-78. But inspite of that the last column (6) of the table clearly shows that in all the years the Index of H.H.E.C. Export exceeded the corresponding Index for the total export of Carpets in India. This fact certainly goes in favour of this important public sector corporation.

**TABLE - 6**

<table>
<thead>
<tr>
<th>Year</th>
<th>Total Export of carpets from India (in crores)</th>
<th>% Increase over previous year</th>
<th>Export of HHBC Carpet (in crores)</th>
<th>% Increase over previous Yr.</th>
<th>Difference (Col.5-3)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1974-75</td>
<td>36.11</td>
<td>-</td>
<td>3.25</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>1975-76</td>
<td>41.43</td>
<td>14.73</td>
<td>6.61</td>
<td>103.38</td>
<td>+88.65</td>
</tr>
<tr>
<td>1976-77</td>
<td>66.41</td>
<td>60.29</td>
<td>8.87</td>
<td>34.19</td>
<td>-26.10</td>
</tr>
<tr>
<td>1977-78</td>
<td>81.96</td>
<td>23.41</td>
<td>9.40</td>
<td>5.63</td>
<td>-17.78</td>
</tr>
<tr>
<td>1978-79</td>
<td>86.92</td>
<td>6.05</td>
<td>8.82</td>
<td>-6.17</td>
<td>-12.82</td>
</tr>
</tbody>
</table>

Due to observations made by earlier that the Export performance of the H.H.E.C. has not been steady from year to year, though on the whole it showed a rising trend except in the year 1978-79, the clear cut picture is not found to be emerging in the above table so far as the variations are concerned. Hence it seems to be difficult to drew any refined conclusion about
the behaviour of the year to year variation except their magnitude and direction as revealed in the aforesaid table.

**Diversification of Carpet Exports:**

Indian carpets are popular all over the world and are exported to almost all the countries though the magnitude of exports differs widely from country to country. An idea about the diversification of carpet exports can be had from the given table on the next page.

A review of this table clearly shows that there are two prominent foreign buyers, namely, West Germany and U.S.A. For example in 1977-78 carpet worth ₹ 3632.03 lakhs and ₹ 2219.54 lakhs were exported to them respectively. Thus taken together about 71% of our total exports of carpets in 1977-78 went to these two countries - 44.31% in the West Germany and 27.07% in the U.S.A. Their relative strength in our export market has been maintained since 1971-72.

In this connection the researcher also desired to have information about the country wise exports of carpets by H.H.E.C., but no detailed information could be available except the information given in the above tables. But on a review of the financial working of H.H.E.C. it is found that this public sector corporation has made a significant drive in the West Germany and Switzerland markets. The H.H.E.C. has arrived at this conclusion that still West Germany has
a great potential for carpet exports and due to this fact it had opened an exclusive carpet warehouse Depot at Hamburg.
## TABLE - 7

Export of Woollen Carpet From India to Different Countries of the World (1971-72 to 1978-79)
(in lakhs)

<table>
<thead>
<tr>
<th></th>
<th></th>
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</thead>
<tbody>
<tr>
<td>1. Belgium-Lux</td>
<td>30.33</td>
<td>39.66</td>
<td>65.20</td>
<td>122.11</td>
<td>97.26</td>
<td>181.24</td>
<td>267.65</td>
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</tr>
<tr>
<td>2. France</td>
<td>14.89</td>
<td>24.64</td>
<td>36.62</td>
<td>45.58</td>
<td>28.27</td>
<td>71.20</td>
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<td>3. West Germany</td>
<td>435.07</td>
<td>790.43</td>
<td>640.57</td>
<td>323.64</td>
<td>1976.00</td>
<td>3352.28</td>
<td>3632.63</td>
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</tr>
<tr>
<td>4. Italy</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>23.38</td>
<td>32.66</td>
<td>33.96</td>
<td>18.41</td>
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</tr>
<tr>
<td>5. Netherlands</td>
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<td>39.01</td>
<td>47.28</td>
<td>68.79</td>
<td>127.91</td>
<td>163.65</td>
<td></td>
</tr>
<tr>
<td>6. Denmark</td>
<td>9.71</td>
<td>17.92</td>
<td>39.37</td>
<td>46.77</td>
<td>66.49</td>
<td>164.86</td>
<td>110.92</td>
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</tr>
<tr>
<td>7. Sweden</td>
<td>22.39</td>
<td>36.68</td>
<td>71.43</td>
<td>112.91</td>
<td>126.61</td>
<td>216.03</td>
<td>156.68</td>
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<tr>
<td>8. U.K.</td>
<td>166.78</td>
<td>246.60</td>
<td>235.41</td>
<td>166.00</td>
<td>197.98</td>
<td>192.30</td>
<td>359.32</td>
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<td>9. Switzerland</td>
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<td>-</td>
<td>-</td>
<td>65.58</td>
<td>173.27</td>
<td>451.67</td>
<td>520.14</td>
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<td>10. U.S.S.R.</td>
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<td>-</td>
<td>55.07</td>
<td>35.52</td>
<td>202.59</td>
<td>173.18</td>
<td></td>
</tr>
<tr>
<td>11. Australia</td>
<td>81.20</td>
<td>65.41</td>
<td>119.72</td>
<td>109.95</td>
<td>100.68</td>
<td>114.43</td>
<td>95.83</td>
<td></td>
</tr>
<tr>
<td>12. Hong Kong</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>1.36</td>
<td>2.87</td>
<td>3.60</td>
<td>1.90</td>
<td></td>
</tr>
<tr>
<td>13. Japan</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>21.63</td>
<td>11.51</td>
<td>18.39</td>
<td>17.59</td>
<td></td>
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<tr>
<td>14. Malaya</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>32.62</td>
<td>3.58</td>
<td>1.26</td>
<td>0.46</td>
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</tr>
<tr>
<td>15. Singapore</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>4.35</td>
<td>1.34</td>
<td>3.92</td>
<td>5.69</td>
<td></td>
</tr>
<tr>
<td>16. Aden (Sypr.)</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>0.08</td>
<td>-</td>
<td>-</td>
<td>-</td>
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<tr>
<td>17. Kuwait</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>3.50</td>
<td>3.45</td>
<td>7.30</td>
<td>8.49</td>
<td></td>
</tr>
<tr>
<td>18. Lebanon</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>15.48</td>
<td>2.35</td>
<td>-</td>
<td>0.06</td>
<td></td>
</tr>
<tr>
<td>19. Saudi Arab</td>
<td>-</td>
<td>-</td>
<td>-</td>
<td>6.00</td>
<td>2.44</td>
<td>5.84</td>
<td>4.35</td>
<td></td>
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<tr>
<td>20. U.S.A.</td>
<td>367.63</td>
<td>532.43</td>
<td>900.53</td>
<td>1153.37</td>
<td>871.32</td>
<td>1189.18</td>
<td>2219.54</td>
<td></td>
</tr>
<tr>
<td>21. Canada</td>
<td>74.44</td>
<td>116.84</td>
<td>191.60</td>
<td>207.13</td>
<td>167.18</td>
<td>125.04</td>
<td>156.35</td>
<td></td>
</tr>
<tr>
<td>22. Others</td>
<td>140.90</td>
<td>230.52</td>
<td>282.99</td>
<td>107.20</td>
<td>196.39</td>
<td>178.27</td>
<td>201.78</td>
<td></td>
</tr>
</tbody>
</table>

Total Exports (Carpet) 1368.91 2143.95 2642.25 3611.19 4142.96 6641.27 8196.37 8692.00 (Provisional)
Trade And Export Promotion Expenditure:

The trade and export achievement of the H.H.E.C. may also be judged through the increasing amount of expenditure on advertisement, publicity, free samples, exhibitions and fashion shows, payment to consultants, decoration of foreign shops, etc. The following table which has been prepared from the published Accounts of the Corporation show its expenditure on this vital efforts.

**TABLE - 8**

Expenditure on Trade and Export Promotion (From 1974-75 to 1978-79 in Rs. Lakhs)

<table>
<thead>
<tr>
<th>HEADS</th>
<th>1974-75</th>
<th>75-76</th>
<th>76-77</th>
<th>77-78</th>
<th>78-79</th>
</tr>
</thead>
<tbody>
<tr>
<td>Advertising, Publicity and Free Samples</td>
<td>7.81</td>
<td>8.55</td>
<td>11.74</td>
<td>6.32</td>
<td>15.35</td>
</tr>
<tr>
<td>Business Promotion</td>
<td>2.85</td>
<td>5.58</td>
<td>6.09</td>
<td>5.65</td>
<td>3.07</td>
</tr>
<tr>
<td>Entertainment</td>
<td>1.63</td>
<td>1.63</td>
<td>1.67</td>
<td>1.01</td>
<td>1.09</td>
</tr>
<tr>
<td>Product Development</td>
<td>5.37</td>
<td>5.37</td>
<td>0.68</td>
<td>2.09</td>
<td>0.38</td>
</tr>
<tr>
<td>Exhibition &amp; Fashion Shows</td>
<td>4.18</td>
<td>4.18</td>
<td>3.50</td>
<td>4.98</td>
<td>13.27</td>
</tr>
<tr>
<td>Rennovation &amp; Decoration of Shops</td>
<td>2.85</td>
<td>2.85</td>
<td>0.24</td>
<td>0.37</td>
<td>0.25</td>
</tr>
<tr>
<td>Consultants fees &amp; Charges</td>
<td>3.72</td>
<td>0.25</td>
<td>0.25</td>
<td>2.34</td>
<td>0.25</td>
</tr>
<tr>
<td>Others</td>
<td></td>
<td>30.58</td>
<td>38.47</td>
<td>102.62</td>
<td>48.61</td>
</tr>
<tr>
<td>TOTAL</td>
<td>28.41</td>
<td>58.99</td>
<td>62.64</td>
<td>125.38</td>
<td>83.08</td>
</tr>
</tbody>
</table>
An analysis of the above table shows that from 1974-75 to 1977-78 there has been a phenomenal increase in the trade and Export Promotion expenditure which increased from Rs. 28.41 lakhs to Rs. 125.38 lakhs, that is an increase of Rs. 341.3%. This is definitely an outstanding effort which was instrumental in Export Promotion of Carpets. But unfortunately this expenditure shows a sharp decline in 1978-79.

**Conclusion Regarding H.H.E.C.**

On the whole, the part played by the Corporation in respect of Export Promotion and trade development activities is commendable. It has not only given a new blood and vigor to the foreign trade in Carpet, but has also helped in Product Development which is so essential in attracting the foreign importers.

In the light of the above discussion the position of our hypotheses and the objectives of the study are found to stand as follows:

(a) The H.H.E.C. has made a significant contribution in increasing the level of Carpet exports from India during the last 5 years. Except that in 1979 its export performance has weakened.

(b) The H.H.E.C. has built up the bright image of our country in the foreign market specially in West Germany during the last 5 years.

(c) The H.H.E.C. has helped Industry in designing and manufacturing of Carpets so as to improve their quality and
competitiveness in the world market where the fashions and tests of the Importers undergo revolutionary changes.

Thus we see that almost all the hypothesis framed earlier are found to be acceptable. The rise in export performance, trends emerging from them and the various export promotion activities of the H.H.E.C.'s enable one to conclude that its role has been glorious.

Here in this chapter, the first three objectives of the study have been discussed at length except the fourth one relating to suggestions to streamline. The functions and activities of the corporation in respect of Carpet Export Promotion & Trade Development. This the researcher aims to do so in the following chapter.
CURRENT INFORMATION ABOUT INDIAN HAND-KNOTTED CARPETS
(From Annual report of AICMA (26th April 1981)

The carpet industry has overcome yet another hurdle. The world, including the developed countries is not yet out of the grip of increasing unemployment, inflation and recession which has affected the buying power of the common man. The carpets for West Germany exceed 50% of the total export of the carpets from our country, but due to the fall in the exchange rates of Deutch Mark in the International Market, the Carpet exporters found themselves into acute difficulty as many importers cancelled the orders and the delay in payments rather non-payments further aggravated the financial situation. Despite all these difficulties the Carpet Industry increased its exports and is continuing its efforts towards this direction with a sense of dedication to the service of nation in order to reduce the country's big trade deficit of Rs.4200 crores.

Export Performance:

According to statistics published by Ministry of Commerce, Government of India, last year's total export of Carpets from the country was to a tune of Rs.136.53 crores.
Export Target:

The export target fixed for sixth five year plan is Rs.325 corores which is not easy to achieve unless all out concerted efforts are made, proper policies framed and projected programmes drawn. This needs close cooperation between industry and the concerned departments of central as well as State Governments to remove certain constraints for the proper growth of the Industry.

Indian Embassy in France Announced that Indian Handmade Carpets had Good Prospects:

The Indian Embassy in Paris reveals that there are good prospects for the export of Indian hand-made carpet to France. It is reported that the officials of Indian Embassy made detailed study which showed that the France markets for carpets are growing day by day. In 1979, 1978 and 1977 this country has recorded the under noted imports of Woollen (hand & Machine) Carpets from the World's leading carpet manufacturing countries:

<table>
<thead>
<tr>
<th></th>
<th>In 1979</th>
<th>In 1978</th>
<th>In 1977</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Frs. 344 Million</td>
<td>Frs. 263 million</td>
<td>Frs.200 Million</td>
</tr>
</tbody>
</table>

According to survey, Iran was traditionally exporting the largest carpets mostly spun by handloom. It is said in the report of Indian Embassy that though the Iranian production of carpets has gone down, its export have not been much affected. The secret of this is that many Iranian manufacturers are getting their carpets manufactured in Afghanistan and in Pakistan. It is said that Iranians are investing
their capital under their direct supervision and the same are being exported as "MADE IN IRAN". So far the prices are high and there is every possibility that Iran will lose the markets in the years to come as French Carpet industry are now interested in low rate carpets even if the quality is little inferior.

China is another supplier of carpets but they are exporting high quality carpets which have limited demand there but now seeing the market trend, it is said, that China has started manufacturing of carpets on European designs and colour schemes and so there is every possibility that it will stand there.

In the survey it is said that though Pakistan is also an important supplier, the qualities exported by it directly are usually of second grade. Besides this, USSR, China, Morocco, Tunisia and Rumania are also supplying their carpets but less in quantities.

About Indian Carpets it is Said in the Survey:

In the past Indian Carpets were highly appreciated and are still appreciated but, in recent years, Indian manufacturers are blending synthetic fibers with wool and that creates prejudice in the mind of importers. Secondly the stock is very limited and so importers do not feel like visiting India and losing their time. The report further
added that India in the last two years or so has regained her earlier prestige.

Indian Carpets are now also reproducing Irnaian designs and colour schemes, these are faithful to the originals and the prices are competitive. Carpets of Agra region are getting better understanding in prices but the Kashmiri Carpets are very highly quoted. Whole salers and importers from France regularly visit the carpet centres of the world (about three four time a year) for purchases. Orders are not placed on the basis of one carpet design, but in lots, that is, the buyers select lots by choosing at random. A lot may consist of 100 to 1000 carpets or more and each lot carpets are having different designs and colour schemes.
ADVANTAGES OF HAND-KNOTTED CARPETS

The significant importance of Indian Hand-knotted carpet not only in terms of national economy but also for earning substantial foreign exchange for India. There is perhaps no other field of Industry which has such obvious advantages. Some of these advantages are:

1) It creates employment opportunities for the weakest section of society in rural areas,
2) For knotting the carpets on looms, no power is required,
3) does not pose any problem of pollution,
4) it not only discourages migration from rural areas to urban areas but to a small extent encourages reversal of population pressure from urban areas to rural areas,
5) it provides employment to the landless, unemployed and under employed persons and therefore it addresses itself to the urgent task of improving their lot in a pragmatic manner, and
6) the capital investment required is negligible as compared to any other industry which gives corresponding employment opportunities. In consequence, a small investment in the hand-knotted carpet industry obtains for the country a very high comparable percentage of employment
earning for the self-employed weakest section of the society and ingress of large foreign exchange earnings.

These are some of the obvious advantages which though well-known, bear repetition. After Iran hand-knotted carpets of India were the second best valued and cherished by affluent west. India has been fortunate that this skills of making carpets developed in this country several centuries and was handed down from generation to generation. It was only recently that the government recognised that great potential of this Industry, the scope of its development and the need to propagate export of these carpets. The results obtained so far are encouraging but not impressive.

Exports of Indian carpets in meeting with increasing competition from other countries including Pakistan and Morocco and now from China as well.

Assisted by the Pakistan Government export of Hand-knotted Carpets from Pakistan, has out-stripped the export of Indian Carpets. If this continues India may be swept out of high class carpet market altogether.

India had a great opportunity and, in any view, still has that opportunity to win over the ever-expanding market for these carpets world over. There is no dearth of dynamism in the industry, the entrepreneurs and the exporters. What then ails this industry, hinders its growth and does not gene-
rate exports to a measure which is India's due. Pakistan, where this industry was non-existent, in a short spell of 39 years, has developed it to an extent that their carpets find easy market in foreign countries and their exports are rising in an almost inverse proportion.
CONCLUSION
CONCLUSION

Deterioration in Handicraft Exports:

The overseas market survey for handicrafts, conducted by the Indian Institute of Foreign Trade, should open the eyes of the authorities as well as exporters in this country. The survey, which covered Australia and select South East Asian Countries, has brought into the sharp focus the Achilles heel of Indian exports, namely, inadequate appreciation of the need for adherence to quality. Official documents generally try to conceal critical assessments by overseas buyers of Indian products. IIFT report has done well not to adopt this attitude. The report concludes flatly that Indian exporters of handicrafts, especially hand made carpets, are first losing confidence of buyers in Australia because of the poor quality of their products. In product like hand-made carpets, India has made a break-through during the last three to four years, which of course, is the direct consequence of retreat of Iranian carpet exports. The exit of Iran from world markets for oriental carpets has created a vacuum. What India has achieved in these markets should, however, be considered insignificant against the background of the vast strides being taken by both Pakistan and China. By properly organising
carpet production and marketing efforts, India could have exploited the market opportunities that have arisen and built up a multi-million dollar business. Instead, India appears to have virtually missed the bus. IIFT complaint about the quality of hand made carpets is in any case, not an isolated affair. Another market study carried out recently by the Indian embassy in Paris came to more or less the same unpleasant conclusion. This study revealed further the some Indian suppliers resorted to the unethical practice of even mixing a fair measure of man made fibres in what are meant to be all-wool carpets. The saving grace is that probably only a minority of fair weather exporters indulge in this game. However, it surpasses one's comprehension how defective and substandard exports escape the net of pre-shipment inspection. From reports coming from abroad, it appears that the Indian scheme of preshipment inspection has failed miserably to achieve the desired result. The report rightly pinpoint the lacuna in system of preshipment inspection. Since this is a feature common to all exports, the commerce ministry would do well to initiate a through review of the working of the existing schemes of standardisation, quality control and pre-shipment inspection.

There are various conjectures about the causes of the malady, ranging from allegations of corruption at the level of inspecting staff to the structural deficiency in the
production process. Proper indentification of the root causes and effective remedies to overcome them brook no dealy.

Today, a furore is raised in the country about compe­­ti­tion from China, Japan and South Korea to back up claim for raising cash incentives and other benefits. The paradox of the situation is that the benefits made available to the exporters attract a host of unscrupulous traders under the present system. It should be possible for the authorities at least to restrict the scope of all types of exports assistance only to those who have not received any black mark in their overseas operations.

Today, the system is lax. Even machinery for settle­ment of disputes and arbitration created under the auspices of export promotion councils is not invested with adequate powers to weed out erring parties. Soft-pedalling on these matters may irreparably damage the image of the country in the world markets as dependable source of supplier. In its analysis, IIFT report makes it abundantly clear that an enormous market potential for Indian handicrafts does exist in the countries surveyed, especially in Australia and Japan. Apart from hand-made carpets, prospects are indeed bright for exports of art metal-wares, woodware, handprinted textiles and scarves. The potential can not, however, be exploited without adhering to strict code of quality control.
Devaluation of Mark Hits Carpet Export:

The devaluation of West German mark is having a disastrous effect on the Indian carpet industry and carpets from India worth over Rs.30 crores are laying unsold at the German port of Hamburg. The 25% devaluation of the mark - effected in February 81 - left German traders unwilling to deal any longer in Indian goods which had experienced a relative and corresponding price increase.

The situation in West Germany has forced out of business nearly 150 Indian small-scale exporters.

About 80% of the total number of carpets produced in India is meant for the West German market from where various quantities find their way to other places in the world - mainly in West Europe.

A member of executive committee of the All India Carpet Manufactures Association (AICMA), during a recent tour of Europe tried to persuade German traders to lift the Indian carpet consignments laying idle at Hamburg port.

His efforts, however, bore no fruit, and the carpets remain where they are.

Apart from bankrupting the small scale exporters here, the West German situation has also thrown the entire Indian Carpets Industry out of gear - production being halved during the last six months. West Germany is the biggest importer
of Indian items.

A number of leading exporters from the Bhadohi - Gopiganj - Gyanpur carpet belt toured Europe this year in search of new business but the results were disappointing.

Last year the belt exported Carpets worth over ₹.100 crores. The current financial is expected to close with exports worth half that figure.

The industry spokesman said that they had been forced to cut labour charges by as much as 25% and that an estimated 10,000 persons engaged in various processes of the industry had been denied and job for the last five months.

Mr. Jagahir Ali Ansari, a leading exporter and member of AICMA, has demanded suitable government action to save the industry from total ruin.

He suggested that the government cash incentive of 20% on carpet export, now be enhanced to 40% to meet a part of the increased prices of Indian carpets in the world market.

This could not be done, he said, the Reserve Bank should enter the trade and lift all the finished carpets and exports them as and when conditions were found favourable.

According to estimates prepared by the Association of the total annual Indian income from exports of ₹.620 crores, as much as ₹.102 crores came from carpet exports.
China has edge over India:

India is the only competitor for Chinese embossed carpets in USA market. In the last two years, a significant development for reproduction of carpets of Persian design has taken place. Initially, this reproduction started in silk carpets. China has traditional superiority over others and the production of silk carpets is meticulously planned in terms of control of colour scheme, design concept and sizes required in the main world markets.

China reproduction of Persian designs is directly affecting India's exports of 'Kashmir' silk carpets as well as those of Iran and Turkey. "If this trend for development of Persian design carpet continues, China may also pose a stiff competition to the export of this type of woollen carpets in medium quality in which India's there is substantial in the world market", according to the Indian Institute of Foreign Trade. The IIFT has prepared a comprehensive report on the "Impact of China's modernization programme on its foreign trade - implication for India".

In the West German market, China has a definite edge over India in respect of Persian design silk carpets as compared to the Kashmir silk counterparts, especially with regard to high quality and price competitiveness. This ranges between 25 to 30 percent. It is known that leading
departmental stores and importers in general are supplying designs of original Persian pieces to China which is booking advance orders.

About US market report explains that the recent decision of that Government to allow import of hand-knotted Carpet from China under the most favoured nation treatment is expected to adversely affect India's embossed carpet exports. In fact, India "may have to reconsider its strategy to sustain and improve upon its exports to USA by switching over more to Persian design carpets. The American customers have so far not developed preference to any appreciable degree, for silk carpets. In the Uk, China has done much better than India in embossed varieties with exports having risen from $10.94 million in 1978 to $14.82 million in 1979. Against this India's average annual performance came to $4 million.

Thus, while China poses an immediate threat to export of Kashmir silk carpets, it may, in the near future, prove to be fierce competitor to Persian design woollen carpets in medium quality. These are presently exported from Mirzapur Bhadohi belt in India. The IIFT has, therefore, underlined the need for replanning production possibilities through proper design concept, colour scheme, sizes, on-the-loom control, better washing facilities and competitive prices.
Problems And Its Solutions:

The handicaps which this industry suffers in India can be categorized in two spheres, viz. the sphere of production and the sphere of exports.

Sphere of Production

(a) Carpet Technology Institute:

Although this industry has now proliferated in various areas of the country and a large number of carpet weav training centres have been established, there is no Carpet Technology Institute. There has been hardly any research and development. Establishment of such an Institute has become imperative. The Institute would, amongst others, suggest improvement in designs of looms and implements, reduce unnecessary burden of work on artisans, eliminate defects in carpet making and up-date the very important aspect of chemical washing.

(b) Import of Raw Wool and Exemption of Import Duty:

Availability of good raw wool for Hand-knotted carpet Industry is diminishing because of its increasing use for other woollen goods and lately by the large machine made carpet industry. As a consequence, average Indian wool prices have rocketed from Rs.7/- per kg. to Rs.30/-, Rs.35/- per kg. during the last 10 years. Its adverse
impact on the cost structure is pricing out our carpets in international markets.

To make available adequate quantity of raw wool for this industry and to improve the quality of the yarn, it is essential that raw wool for carpet woollen yarn may be allowed to be imported freely and the 45% import duty exempted. This import would expand exports many times over and would not be a burden.

(c) Need to Conserve Raw Wool Resources:

For so long as raw wool continues to be in short supply, it may be conserved for Hand-knotted Carpet Industry. Its use for machine made carpets may be discouraged in the interest of millions of artisans engaged in the Hand-knotted Carpet Industry.

Slaughter of sheep and export of Mutton are tempting shepherds away from sheep breading. Both practices may be stopped forthwith to remove this disincentive to sheep breading for raising wool.

(d) Excise Duty on Semi Worsted Woollen Yarn:

Carpets made in other countries, viz. Pakistan and Iran, fetch much higher unit value. A rough comparison would indicate the low unit value realised by Indian Carpets.
### Average F.O.B. realization per Square Meter

<table>
<thead>
<tr>
<th>Country</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Iran</td>
<td>Rs. 1800/-</td>
</tr>
<tr>
<td>Pakistan</td>
<td>Rs. 760/-</td>
</tr>
<tr>
<td>India</td>
<td>Rs. 360/-</td>
</tr>
</tbody>
</table>

Other countries are employing Semi Worsted Yarn for Hand knotted carpets. If our carpets have to match their quality or excell then, use of semiworsted carpet woollen yarn is being discouraged by levy of excise duty Rs. 8/63 per Kg.

<table>
<thead>
<tr>
<th>Duty Type</th>
<th>Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Excise duty</td>
<td>Rs. 7.50</td>
</tr>
<tr>
<td>Counter-vailling duty</td>
<td>Rs. 0.75</td>
</tr>
<tr>
<td>15% additional duty</td>
<td>Rs. 0.38</td>
</tr>
</tbody>
</table>

Rs. 8.63

Total exemption of excise duty on semiworsted yarn for hand knotted carpets is strongly urged.

(e) **Credit Facilities:**

Credit facilities for an industry of this nature have to be entirely different from norm and standards applied to other industries. No other industry pays back the borrowed capital so quickly as does the carpet industry. The concessional rate of interest for packing credit is allowed only for 90 days. This is unrealistic. High-knot
carpets take 3 months to 6 months on looms. Concessional rate of interest should be allowed for 12 months, keeping in view the frequent bottle-necks and delays which take place at Calcutta and Bombay Ports. Liberal credit facilities are required for this industry which may also be recognised as priority sector for the purpose.

**Sphere of Exports:**

Indian carpets are loosing ground in international markets both on account of price and quality. The factors responsible for this unhappy situation may be examined to find remedial measure.

(a) **Cash Assistance for Exports:**

Cash assistance allowed by the Government for export of Indian carpets is considerably less than the cash assistance allowed to carpet exporters in Pakistan, thus adversely affecting competitive-ness of Indian carpets in foreign markets. The present level of 20% cash assistance may be raised to 40% to remove this handicap. This assistance may be fixed for the next five years so that the industry may plan and grow in a steady economic environment.

(b) **Concessional Air Freight:**

A large number of Indian carpets are sent by sea which entails considerable loss of time in transport to the ports, at the ports and during the voyage. Pakistan allows its carpet exporters very low air freight for export of their
carpets. Therefore, they are able to give quick deliveries and the buyers are obviously able to do a larger and quicker turnover when dealing with Pakistan. Special concessional air freight may be allowed for exporter of carpets from India also to increase India's competitiveness in this field.

(d) Export Import Bank:

A full fledged Export Import Bank of India invested with adequate funds and authority to meet financial requirements for carpet manufacture, export and marketing in foreign countries would be helpful. Due to insufficient holding power of many carpet manufacturers, foreign large buyers offer low prices and exports have also to be made without letters of credit. Resale of these carpets abroad is made at considerable profit. Export Import Bank of India can correct this situation by assisting Indian manufacturers to organize their warehouses and marketing in the foreign countries and thus help them get better value for their carpets. This would also bring in higher export earnings.

(d) Designs, Colours, Market Trends - Gathering Intelligence:

Hand-knotted Carpet Industry is basically a village industry and yet most of its production is intended for use in sophisticated Western homes. The large number of small manufacturers have no organization to obtain feedback information about the highly changeable trends and tastes
of foreign customers. Such feedback information through a Carpet Export Promotion Council is necessary to make carpets in consonance with the changing market requirements.

Indian Institute of Designs or some such other organization can also have a useful role in this field. It can innovate on design and colour schemes and make these available to manufacturers.

(e) Interaction Between Manufacturers and Buyers:

Lastly, there is need of much greater effort by the Government to propagate and popularize Indian Carpets in many foreign countries by organizing exhibitions and buyers-sellers meets. Delegations of carpet manufacturers may be sent at Government expense to survey foreign markets. This interaction would be helpful in increasing export.

India Can Take Place Of Iran:

Due to difficult political situation in Iran countries like China, Pakistan, Afghanistan and Morocco went in to the job of Persian like manufacturing carpets. Pakistan could do something but it was India who could do it better and could reproduce large varieties of Persian designs befitting to liking of all carpet lovers from Importer to retailers and retailers to consumers. A close study of the situation and experience of those who engaged in the sales of carpets in West Germany, U.S.A., U.K. and Australia
reveal that India is the only country which can take the place of Iran, since it has required technical capability, trained labour force, favourable natural conditions and the needed Raw-Materials. Above all India has the much needed devotion in their people who are engaged in the manufacture of carpets to acquire, improve and perfect the desired artistic tastes in the hand-made woollen carpets. Indian Sarukh-Mir is a unquestionable example. It has left behind even the prestigious Persian Sarukh-Mir. Not only this, "India can produce finest of knotting Kashmir, the whole range of Persian designs and Persian qualities from the lowest Hamadan to the highest Kashan, a French Abussan or Sovencerie, the Chinese Peking, the Algerian or Morocco Berber, any Canasian design". Here I want to put one statement of Mr. Charles W. Jacoboson in this context - he said "As Persia, with a limited population weaves less and Rugs (and on the whole Rugs of poor quality), India with her 600 million people may supplant Iran as the number one Rug Weaving Country."

"Unlike Iran, India, is perhaps the only country which can produce any carpet of any size and in exact length and breadth of the Importing Countries demands".

India is today capable of executing orders for any design, in any size, in the required quality and quantities and thereby it becomes the only country which can satisfy the increasing demand for large sizes almost wall to wall
thick pile carpets for the American Houses, to the scatter Rugs and the smaller carpet sizes required in the European countries like Germany, Switzerland and Austria, in the required quantities and similar colour combinations. Selling of carpets at the end of Importer, Retailer and stores is becoming complex every day. Methods like sale through catalogues and sample pieces is only possible when carpets of similar quantity, colour matching sizes are readily available which fortunately India alone can do and is doing.
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1. 'Kleen' a quaterly magazine from AICMA.
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Technical words

There are certain words which are being used in the carpet industry. These words are very significant and it would be very informative to enlist some of these words here.

Aubusson — French design derived from tapestries of the Louis XIV period, place name.

Bacha — In a design where a knot in one phera is placed to the left of a knot of the same colour in the preceding “phera”.

Banu — Weft yarn that is yarn used width in carpet.

Bis — No. of warp in a yard length.

Bokhara — A group of typical geometric designs associated with Turkoman area of Central Asia.

But an — Two rows of knots.

Dehari — A day's work, nominally 6000 knots which a man is expected to tie in a working day.

Hand Spun Yarn — Yarn spun on spindle or spinning wheel, without the aid of power.

Jut — Double knot.

Kashan — Richly ornamental design associated with the high class carpets from Kashan in Iran.

Kirman — A group of typical designs associated with high class carpets from Kirman in Iran frequently with pastel colours to suit modern decor, place name.

Lachai — This weft inserted stock in a carpet untwisted cotton of just strand.

Nakshankha — A point paper design from which a carpet is woven.

Phanda — A pile knot tied into a carpet, sometimes used as a single knot as a distance from a double knot.

Pile — The tufts of wool or other fibres knotted into the base fabric of a carpet.

Rug — A piece of thick, heavy fabric used for floor covering.

Talim — Rokes also heligraphic script describing a design for the benefit of a weaver.
PURPOSE: General Study on "Exportable products of Bhadohi Carpet Industries: An analytical Survey". For the academic purposes only. (Detailed answers are required).

1. Name of your Organisation - M/s.

2. Nature of Business
   (In Carpets/Other than Carpets).

3. Types of Plants are being used in your Organisation -
   (i) Power Loom.
   (ii) Hand Loom.

4. Installed capacity of your existing plants -
   (in Unit/other Standards)

5. Your present production -

6. Sources of raw materials and its procurement procedures -

7. Product Mix - (Types of products)
   (i)
   (ii)
   (iii)
   (iv)
8. Labour employed or involved in manufacturing process—(quantity)—
   (i) Skilled
   (ii) Semi-Skilled
   (iii) Unskilled

9. Personnel Policy—
   (i) Wages are paid—
      (a) Daily basis.
      (b) Weekly basis
      (c) Monthly basis
   (ii) Do you provide wages, according to their skills?
      Yes/No.
   (iii) Do you provide any incentives and Bonus?
      Yes/No.
   (iv) Do you provide residential facilities?
      Yes/No.
   (v) Any other benefit—

10. Product Casting Systems—

11. Pricing Policy—
   (i) For Home Market:

   (ii) For Export Market:
12. Distribution Channels -
   (i) For Home Market: Through Agent or any other way.
   (ii) For Export Market: Through your own company or through any other Export Company (Detailed description).

13. Transportation Media -
   (i) For home:
   (ii) For export:

14. Who bears transportation costs -
    Seller/Buyer.

15. Sales records for -

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16. Profit Policy -
    For export market (in %)
    For home market (in %)

17. Procurement of Capital -
    (i) Bank -
    (ii) Any other financial institutions -

18. Any Expansion programme for future -