CHAPTER - III
CARPET INDUSTRY IN IRAN

CARPET HISTORY IN IRAN

Introduction:

Whenever there is a talk about carpet, the first thing which immediately comes to mind is the Persian Carpet. As the famous specialist in Oriental Civilization and Persian Art and Culture, American Professor Arthur Pope, noted: “All around the world, the Persian Carpets are the symbols of poetical luxury, and the precious historical carpets of Isfahan and Kashan are the manifestations of the Iranian genuine and authentic art”. Persian Carpets are traditionally known for their tremendous variety in design, color, size, and weave, and also for the uniqueness of each and every piece produced. Over the years, art scholars and carpet experts have attempted to classify the Persian Carpet designs. The results of their researches have revealed that there are 17 groups of main patterns together with their sub patterns. To name a few, one may recall of the Patterns of Historic Monuments (such as Takht-e-Jamshid, Tagh-e-Bostan, and Tagh-e-Kassra), Shah Abbasi, Spiral, Interconnected Patterns, etc.

It is documented that Iranians more than any other nation have used various sizes and types of Persian Carpets to enrich, decorate, and beautify rooms, halls, historic buildings, religious centers and holy constructions, and many other locations. Most of the hand-made Persian Carpets and Rugs have been recognized as precious artistic works because of their graceful designs and delicate styles and patterns. Many hand-made
Persian Carpets and Rugs are also preserved as costly and dear artistic works in museums and private collections all around the world. In this article, the history of carpet weaving in reference to the first Iranians who introduced this valuable artistic work to the world is studied and discussed.

The Role of Sheep in Carpet Weaving:

Since sheep wool is the main raw material of carpet weaving, one cannot eliminate the role of sheep in this creative work. There are a number of different theories regarding the origins of domestic sheep. However, most sources agree that domesticated sheep flocks originated from Mouflon (Asiatic and European types) and Urial (Asiatic type). The two wild populations of Mouflons are still in existence: the Asiatic Mouflon is still found in the mountains of Asia Minor and southern Iran and the European Mouflon of which the only existing members are on the islands of Sardinia and Corsica. The wild populations of Asiatic Urial are also still found in mountainous regions of northern province of Mazanderan in present-day Iran, and they are called as Wild Rams (in Persian: Ghooch-haa-ye-Vahshi). Sheep were among the first animals domesticated and it is believed that sheep flocks were firstly domesticated in the Iranian plateau and the agriculture and sheep husbandry were among the very first occupations of the inhabitants of the plateau. An archeological site in Iran produced a statuette of a sheep, covered with lots of wool, which suggests that selection of sheep for wool had begun to occur over 6000 years ago in Iran. It should be also noted that in present-day world, there are five categories of sheep breeds, which are Fine Wool Breeds (like Merino sheep), Medium Wool Breeds (like Suffolk sheep), Long Wool Breeds (like Lincoln Sheep), Coarse Wool
Breeds (like Persian Sheep), and Crossbred Wool Breeds (like Corriedale Sheep). Among all those breeds, only the wool obtained from Coarse Wool Breed is the best raw material in carpet weaving. It is documented that the first Iranians who lived in the Iranian plateau were in contact with sheep, gradually became familiar with the properties and the utilizations of wool, and they gradually established a kind of rug weaving to cover the floors where they used to reside and live. Those primitive rugs, using sheep wool, replaced the hides of sheep and cattle formerly used as the floor coverings.

**Archeological and Historical Evidences:**

In the past, Western researchers, based on their relatively reliable evidences, speculated that Egyptian and Assyrian civilizations have been the original centers of world’s carpet weaving. Though Iranians may not claim to have produced the first handmade carpets, the evidences specially finding carpet named Pazyric (also spelled as Pazirik) proves the great role of Iranians in creating this valuable art. After the discoveries of a group of Russian archeologists headed by Professor Sergei Ivanovich Rodenko, who discovered a knotted carpet among the icebergs in the first half of recent century, the whole assumptions changed totally.

Location of weaving craft changed from Nile coasts and Dajleh and Forat Rivers to Iran and Central Asia. In fact, in a unique archaeological excavation in 1949, in a place called Pazyric Valley (80 km to Mongolia border, among Altai mountain ranges in southwestern Siberia), Professor Rodenko and his group discovered a knotted carpet in the frozen graves of a Scythian prince. Radiocarbon testing revealed that Pazyric carpet was woven about 2500 years ago. This carpet is 1.83×2 meters and has 36 symmetrical
knots per sq cm, which is woven in copper-brown and light green colors. Although it was found in a Scythian burial-mound, most experts attribute it to Iran. Its margin images are doubtlessly very similar to common shapes in Achamenid period (550-330 BC) and Persepolis’ images. The outer of the four principal border bands is decorated with a line of horsemen: seven on each side, twenty-eight in number, or a figure which corresponds to the number of males who carried the throne of Xerxes to Persepolis. Some are mounted, while others walk beside their horses. In central ground of this carpet, there are four-winged star shapes, which are exactly the same as the objects discovered in Lorestan, a historic territory of western Iran amidst the Zagros Mountains.

In addition to the archeological finds, the historical records also show that the court of Cyrus the Great (reigned 559-529 BC), who founded the Persian Empire over 2500 years ago, was bedecked by magnificent carpets, which indicates that Iranians knew about the use of knotted carpets, and their flocks of sheep provided them with high quality and durable wool for this purpose. It is very likely that Iranian nomads knew the use of the knotted carpet even before the time of Cyrus, but almost certainly a true craft did not exist and the function of the carpet was more practical than artistic. Some researchers claimed that at the time of the conquest of Sardis (546 BC) and Babylon (539 BC), Cyrus the Great came into contact with the artistic works of Babylon, refused to allow it to be thrown away. It was probably he who introduced the art of carpet weaving into Persian Empire. It is reported that the tomb of Cyrus the Great, who died in 529 BC and was buried at Pasargade, was covered with precious carpets. Classical tales also recount how Alexander, the Greek invader, found carpets of a very fine fabric in the Cyrus tomb. Professor Arthur Pope, has noted, "Greek resources refer to the carpets of
the Achamenid era which are woven with golden threads. This is almost verified in Avesta, where reference is made to the golden-thread mats”.

**Carpet Weaving in Sassanid Era:**

Historical evidences confirm that carpet weaving was flourished during Sassanid era (224-651 AD). Professor Pope has documented that, "Some of the carpets of the Sassanid era were definitely wool-made and once Dastjerd was taken over by the Roman Ruler Heraculis in 628 BC, a variety of thick and soft carpets were observed among the obtained valuable spoils of war". It should be noted that Professor Pope refers to Dastjerd (also spelled as Dastgerd), which is a region in Isfahan province in the present-day Iran. Though, there is also a place named Dastgerd in the Khorasan province of Iran which is the birthplace of Nader Shah, the founder of Afsharid dynasty.

A Chinese Almanac which belongs to 590 to 617 AD (short time before the fall of Sassanid dynasty) has recorded the existence of the carpet among Iranian commodities and indicated that the Sassanid carpets contained images adorned with gold and valuable stones. The same glittery adorning style was used in a large carpet with Garden design. That carpet used to cover the floor of great hall of Ctesiphon Palace (in Persian: Kakh-e-Tisfoun) and was known as the Carpet of Spring Garden (in Persian: Farsh-e-Bahaarestan). This carpet has passed into history as the most precious of all time. Made during the reign of Khosrow I (531-579) the carpet was 90 feet square. Its description has been recorded as follows: "The border was a magnificent flower bed of blue, red, white, yellow and green stones; in the background the color of the earth was imitated with gold; clear stones like crystals gave the illusion of water; the plants were in silk and the fruits
were formed by color stones”. Alas, the Arab invaders cut this magnificent carpet into many pieces, which were then sold separately.

**Carpet Weaving in Iran after Arabs Invasion:**

As Iran became a part of Muslim world in 642, the carpet weaving declined in Iran. Because of racial and tribal reasons, Arabs did not need any carpet or floor-covering. In fact, there was no type of luxurious carpets among Arabs. This decline lasted only until the time of Omavid and Abbasid Caliphs, who decorated their dreamy palaces with precious and magnificent Persian Carpets.

The Seljukid era (1038-1194 AD) has been considered to be of a great importance in the history of Persian Carpet. The Seljuk women were skilful carpet weavers using Turkish knots. In the provinces of Azerbaijan and Hamadan where Seljuk influence was strongest and longest lasting, the Turkish knot has been used up to this day. In the Turkish (or Ghiordes) knot the yarn is taken twice around two adjacent warp threads and the ends are drawn out between these two threads. In the Persian (or Sinneh) Knot, the wool thread forms a single turn about the warp thread. One end comes out over this thread and the other over the next warp thread. Unfortunately, there is no carpet sample left from Saljukid era. However, their similarities to the carpets of Aladdin Mosque in Seljuk Capital of Konia (also spelled as Ghoonieh), in Ashrafoghlu Mosque in Beyshehir, in the Museum of Turkish and Islamic Art in Istanbul and in the Mowlana Museum in Konya (all located in Turkey) should be noticed.
When the Mongols invaded Iran in 1220, they found many Iranian homes and tents boasting local carpets. For the next two centuries, the artistic life of the country, including carpet weaving, declined under the influence and devastation of the Mongols. However, among his few graces, the conqueror Tamerlane's son, Shah Rokh (1409-1446), put great emphasis on Persian Carpet and outstanding works began to appear once more from court subsidized looms. The lavish royal support guaranteed the highest skills and the finest materials. Once more the quality of this art form began to improve significantly. Though, the carpets in this period were decorated with simple motifs, which were mainly geometric in style.

**Carpet Weaving in Iran during Safavids:**

The Persian Carpet reached its zenith during the reign of the Safvids in the 16th century. Indeed the first concrete proofs of this craft date back to this period. Approximately 1500 examples are preserved in various museums and in private collections worldwide. Shah Tahmasb who reigned from 1524 to 1567, was a person devoted to, and a great patron of all the Persian Arts. His royal palace, first at Tabriz and later at Ghazvin, was frequented by miniaturists, painters, and many others familiar with artistic works. Shah Tahmasb did not establish a court workshop for carpet weaving, and preferred the art evolve contemporarily in all the parts of the country, evidently under the control of artists and craftsmen from his court. In spite of the lack of an effective court workshop, the most beautiful examples of the Safavid era were made during his long reign. The best carpets of this epoch came from Kashan, Tabriz and Isfahan. According to a Hungarian Ambassador to the court of Tahmasp, in those locations some splendid
examples of Persian Carpets were made, which the Shah sent one of them as a gift to the Suleiman the Magnificent. Among the examples which have been preserved from that period are the carpet kept in the mosque of Ardabil. During the reign of Shah Abbas (1587-1629), commerce and crafts prospered in Iran. Shah Abbas encouraged contacts and trade with Europe and transformed his new capital Isfahan, into one of the most glorious cities of Safavid Empire. Shah Abbas established a royal carpet factory and hired artisans to prepare designs to be made by master craftsmen. Most of these carpets were made of silk, with gold and silver threads adding even more embellishment. Two of the best known carpets (one large, and one small) of the Safavid period; dated 1539 come from the Mosque of Ardebil. Many experts believe that these carpets represent the culmination of achievement in carpet design. The large carpet is now kept in London's Victoria and Albert Museum in the UK while the small one is displayed at the Los Angeles County Museum in the USA. Shah Abbas also developed the use of gold and silver thread carpet, culminating in the great coronation carpet, now held in the Rosenberg Castle, Copenhagen, Denmark. This particular piece has a perfect velvet-like pile and a gleaming gold background. Of course, these carpets were made exclusively for the high court and the great nobles, and were protected as closely as any golden treasure. Increased demand, from the great royal courts of Europe for these gold and silver threaded carpets led to a growing and highly successful export industry. A large number went to Poland after King Sigmund's merchants traveled to Iran to acquire carpets. King Louis XIV of France even sent his own craftsmen to Iran to learn the trade. The court period of the Persian Carpet ended with the Afghan invasion in 1722.
Carpet Weaving After Safavids and During Pahlavi Era:

Approximately about two centuries, from the fall of Safavid dynasty until Reza Shah founded the Pahlavi dynasty in 1925, nothing was done to improve various activities associated with the carpet production in Iran. During Reza Shah (1925-1941), Iran Carpet Company was established. First, in 1936 by a decree of the government of Iran, the Eastern Carpet Manufacturing Company (ECMC) was dissolved. ECMC was a non-Iranian property, and was fully operative in the cities of Kerman, Arak and Hamadan. ECMC also owned the sales centers in seven major cities of the world namely London, Paris, New York, Sidney, Constantinople, Buenos Aires and Toronto, while the city of Izmir in Turkey was chosen to be the house of the company’s headquarters. On February 3, 1936, the government of Iran ordered the closure of ECMC in a bid to revive the carpet weaving craftsmanship in the country; and following the order, all activities of that company were closed down and the management of the company, as well as all its assets was handed over to the newly established Iran Carpet Company. Reza Shah also encouraged the craft of carpet making and created Imperial Workshops. Those workshops produced some of the masterpieces for the court palaces in Tehran which are already considered museum pieces. His son, Mohammed Reza Shah Pahlevi (reigned 1941-1979), followed the father's suit and promoted the precious artistic works of carpet weaving and established the Tehran Museum of Carpet and in a great degree facilitated the export and trade of Persian Carpet.
History of machine woven carpet in Iran

In August 1973, the first Iranian machine-woven carpet factory was launched in Ravand/Kashan for manufacturing 3 million square meters of carpet. Until then, machine-woven carpet production was banned by the government in order to support handmade carpets. This is the first machine-woven carpet production based on a contract between Behshahr Industrial Group and a Belgian company.

In the beginning it was supposed to export all the 3 million square meters to Belgium, but as a result of high demand of domestic market for machine-woven carpets, all the carpets were sold inside the country. Later on, there was a boost on production upto 10 million square meters, therefore, in order to meet this requirement, carpet weaving machines as well as spinning machines were imported. Simultaneously Iran's Islamic Revolution was flourishing in Iran.

At the beginning of the Islamic Revolution there were approximately 14 carpet factories in Iran including 6 private and 8 state-owned factories. Although, during the early years of revolution, due to the long history of hand-made carpet in Iran, machine-woven carpet was facing severe opposition by handmade producers, besides, there was a rapid boost in the number of factories over time. For instance, currently Kashan city which has 645 production units and about 60% of total Iran’s machine-made carpet production.

The production of machine-made carpet in Iran which began from 1973 could open a place for this product among hand-made carpets that always had special popularity and fame in this country. The installed capacity of Iran's machine-made carpet
machinery is about 135 million sqm and its production also is about 85 million sqm per year.

Now more than 80% of Iran's machine-made carpets are woven with 500 reed and weft density of 520 to 1500 pick/m. The machine made carpets though constitute a smaller share of the total value of carpets produced in Iran gradually its share is increasing.

**Present Status of Carpet Weaving in Iran:**

The latest statistical data indicates that around 8-10 million people are either directly or indirectly employed in the carpet industry in Iran\(^3\) (14.6 percent of the nation's entire population). Available data also reveals that about 60 million square meters of carpet worth over 500 million US dollars are exported annually. Though Persian Carpets remain the top hand-made carpets in the world; they have unfortunately lost their share in the international market. The carpet industry is facing chaos in the present day Iran, particularly because various organizations (like Agricultural Jihad Ministry, Ministry of Industries and Mines, Ministry of Commerce, etc.) compete to handle its affairs. In addition to that, competitors on the international scene (like China, India and Pakistan) are marketing the carpets with Persian patterns and designs, at the better rates. The fact that Iranian hand-made carpets do not sell well locally or around the world has also made the economic conditions of male and female weavers more suffering and disastrous.

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\(^3\) Iran Daily Newspaper, October 10, 2005, P:6
Today, a majority of Iranians count on days when Iran once again redeems her glorious historical status that she deserves not only in the global carpet industry but also in all other aspects of life and activities.

**EXPORTS**

**Decreasing trend**

The hand woven carpets are exported to several countries and prominent of them are USA, Germany, Italy, Emirates, Japan, Canada and France. In the past Iran had the greatest share of carpet industry among the hand woven carpet exporters. As indicated in the introductory chapter, in 1974, 60% of global carpet market belonged to Iran. However, the share in the global market has gradually reduced. By the end of 2007 the share had touched as low as 31.3%. The trend in the fall in the exports of hand woven carpets is indicated in Table no.3.1
Declining trends in exports of hand woven carpets

Table 3.1

<table>
<thead>
<tr>
<th>Year</th>
<th>Exports</th>
<th>Share in non-oil export</th>
<th>Share in the market*</th>
</tr>
</thead>
<tbody>
<tr>
<td>1999-00</td>
<td>691</td>
<td>20.5%</td>
<td>30%</td>
</tr>
<tr>
<td>2000-01</td>
<td>619</td>
<td>17.7%</td>
<td>31%</td>
</tr>
<tr>
<td>2001-02</td>
<td>553</td>
<td>13.1%</td>
<td>37.7%</td>
</tr>
<tr>
<td>2002-03</td>
<td>514</td>
<td>11.7%</td>
<td>51.1%</td>
</tr>
<tr>
<td>2003-04</td>
<td>539</td>
<td>9%</td>
<td>41%</td>
</tr>
<tr>
<td>2004-05</td>
<td>472</td>
<td>7.4%</td>
<td>65.8%</td>
</tr>
<tr>
<td>2005-06</td>
<td>466</td>
<td>4.5%</td>
<td>31%</td>
</tr>
<tr>
<td>2006-07</td>
<td>413</td>
<td>3.9%</td>
<td>33.3%</td>
</tr>
<tr>
<td>2007-08*</td>
<td>397</td>
<td>3.3%</td>
<td>31.3%</td>
</tr>
</tbody>
</table>

Source: Central Bank of Iran

Source*: Trade Promotion Organization of Iran

By the year 2007-08, the exports have come down to $ 397 million. One can visualize the impact of such a fall on the foreign exchange earnings, employment situation. Already Iranian economy is facing the problem of unemployment and under employment. Since hand oven carpet industry is rural based and large number of women are employed in the industry, it is but natural for the government to bestow its attention to revive the industry keeping in mind the cultural importance of carpets.
NON-OIL EXPORTS

The table below shows the value and weight of non-oil export during 2000-06.

Table 3.2

Non-oil export goods in 2000-06 (Excluding oil, gas and electricity)

<table>
<thead>
<tr>
<th></th>
<th>2000</th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>Percentage Change</th>
<th>Share (percent)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>2005</td>
<td>2006</td>
</tr>
<tr>
<td>Agricultural &amp; traditional goods</td>
<td>1,466</td>
<td>1,603</td>
<td>1,724</td>
<td>2,104</td>
<td>1,742</td>
<td>2,545</td>
<td>3,012</td>
<td>34.5</td>
<td>18.4</td>
</tr>
<tr>
<td>Hand-woven Carpet</td>
<td>619</td>
<td>553</td>
<td>514</td>
<td>539</td>
<td>472</td>
<td>466</td>
<td>413</td>
<td>-4.6</td>
<td>-11.4</td>
</tr>
<tr>
<td>Fresh &amp; dried fruits</td>
<td>504</td>
<td>666</td>
<td>779</td>
<td>991</td>
<td>772</td>
<td>1,198</td>
<td>1,571</td>
<td>66.9</td>
<td>31.1</td>
</tr>
<tr>
<td>Metallic mineral ores</td>
<td>38</td>
<td>77</td>
<td>32</td>
<td>46</td>
<td>247</td>
<td>170</td>
<td>321</td>
<td>77.6</td>
<td>88.9</td>
</tr>
<tr>
<td>Industrial goods</td>
<td>2,260</td>
<td>2,543</td>
<td>2,852</td>
<td>3,823</td>
<td>4,209</td>
<td>7,760</td>
<td>9,550</td>
<td>59.7</td>
<td>23.1</td>
</tr>
<tr>
<td>Copper &amp; aluminum bar</td>
<td>85</td>
<td>73</td>
<td>72</td>
<td>106</td>
<td>242</td>
<td>482</td>
<td>840</td>
<td>45.3</td>
<td>74.2</td>
</tr>
<tr>
<td>Cast iron &amp; iron &amp;steel</td>
<td>301</td>
<td>278</td>
<td>350</td>
<td>299</td>
<td>708</td>
<td>1,122</td>
<td>1,327</td>
<td>21.2</td>
<td>18.3</td>
</tr>
<tr>
<td>Chemical &amp; petrochemical products</td>
<td>380</td>
<td>1,053</td>
<td>1,118</td>
<td>1,389</td>
<td>1,815</td>
<td>2,729</td>
<td>3,101</td>
<td>36.5</td>
<td>12.1</td>
</tr>
<tr>
<td>Total value</td>
<td>3,763</td>
<td>3,918</td>
<td>4,608</td>
<td>5,972</td>
<td>6,384</td>
<td>10,474</td>
<td>13,027</td>
<td>53.0</td>
<td>24.4</td>
</tr>
<tr>
<td>Total weight</td>
<td>14,281</td>
<td>15,194</td>
<td>13,362</td>
<td>15,467</td>
<td>15,801</td>
<td>24,983</td>
<td>27,814</td>
<td>38.2</td>
<td>41.3</td>
</tr>
</tbody>
</table>

Source: Central Bank of Iran
Figure 3.1
Major non-oil export during 2000-2006

Value (US$ Million)

Source: Central Bank of Iran

Figure 3.2
Iran’s non-oil export during 2000-2006

Value (US$ Million)

Source: Central Bank of Iran
In 2000, about 14,281 thousand tons of goods, valued at $3,763 million were exported which showed a 18.7 percent reduction in weight and an 11.9 percent increase in value compared to the previous year.

The export value of agricultural and traditional goods declined slightly and reached $1,466 million, compared to the previous year ($1,478 million). This decline along with significant growth of exports of industrial goods in value at $2,260 million reduced the share of exports of agricultural and traditional goods.

Export of hand-woven carpets reached $619 million with 10.4 percent reduction, compared to the previous year ($691 million), and a 2.6 percent reduction in the value of exported fresh and dry fruits, were the main factors behind the decline in the value of exports for this group.

In 2001, a total of 15,194 thousand tons of non-oil goods valued at $ 3,918 million were exported, showing 13.5 and 12.3 percent rise in weight and value, respectively, compared with the previous year. The export value of agricultural and traditional goods grew by 9.4 percent compared with the previous year to reach $ 1,603 million in 2001. The value of exported fresh and dried fruits, with a significant rise of 32.2 percent amounted to $ 666 million.

The value of industrial goods grew by 12.6 percent to reach $ 2,543 million, which constituted 60.2 percent of non-oil foreign exchange export earnings. The export of chemical and petrochemical products increased significantly, and export proceeds
from these items amounted to $1,053 million in 2001. The share of export value of industrial products kept its upward trend in the review year.

In 2002, a total of 13,362 thousand tons of non-oil goods valuing at $4,608 million were exported, showing 17.6 percent reduction in weight and 9.1 percent rise in value. Export of traditional and agricultural goods with 7.5 percent rise amounted to $1,724 million in 2002, while its share declined moderately to 37.4 percent. Reduction in the share of export of traditional and agricultural goods was largely due to decline in the value of export of carpet by 6.9 percent in value at $514 million.

Export of industrial goods grew by 12.1 percent to $2,852 million, and its share with a slight increase reached 61.9 percent in 2002, against 60.2 percent in 2001. Export of chemical and petrochemical products had the highest share of 24.3 percent in total non-oil exports, and export proceeds out of these products amounted to $1,118 million.

During 2003, a total of 15,467 thousand tons of non-oil goods valuing at $5,972 million were exported, showing 15.8 and 29.6 percent rise in weight and value, respectively, compared with the previous year. Export of agriculture and traditional goods with 22 percent rise amounted to $2,104 million in 2003 compared with the previous year ($1,724 million). Export of industrial goods increased by 34 percent in value at $3,823 million in 2003.

During 2004, a total of 15,801 thousand tons of non-oil goods valuing at $6,384 million were exported, showing 2.2 and 6.9 percent increase in weight and value, respectively, compared to the year before.
Export of agriculture and traditional goods by 17.2% reduced and reached $1,742 million and the export of industrial goods increased to $7,209 million with 10.1 percent rise. Export value of cast iron, iron and steel with $708 million together with export value of chemicals and petrochemicals in value at $1,815 million were the driving forces pushing the non-oil exports up in this year.

During 2005, a total of 24,983 thousand tons of non-oil goods worth $10,474 million were exported. Sharp rise in the export value of chemicals and petrochemical, owing to the continued rise in the price of crude oil and oil products as well as metals, were the driving forces behind the surge in non-oil exports to more than $10 billion in 2005. Export of chemicals and petrochemicals increased in value at $2,729 million in 2005, against $1,815 million in 2004.

Moreover, the rise in export of metals (cast iron, iron, steel, aluminum and copper) in value at $1,122 million, as well as growth in the export of dried and fresh fruits ($1,198 million) in 2005 were other reasons behind the mentioned growth.

Export of industrial goods grew exponentially by 59.7 percent to $7,760 million in 2005, against $4,209 million in 2004. This raised their share in non-oil exports from 65.9 percent in 2004 to 74.1 percent in 2005. The rapid growth in export of chemicals and iron, cast iron and steel was largely responsible for growth of industrial goods. By and large, significant rise in global price of major exported goods, in tandem with increase in export volume, were the main drivers behind the increasing trend of export of industrial goods.
During 2006, a total of 27,814 thousand tons of non-oil goods worth $13,027 million were exported, indicating 11.3 and 24.4 percent rise in weight and value, respectively, compared to the preceding year.

Traditional and agriculture goods with 23.2 percent share of non-oil export goods valuing at $3,012 million and export of industrial goods grew exponentially by 73.5 percent to $9,550 million in 2006. The rapid growth in export of oil and gas production, was largely responsible for growth of industrial goods. The table below shows the value and percent of total non-oil exports of Iran’s first five trade partners in 2000-06.

**Table 3.3**

<table>
<thead>
<tr>
<th>Year</th>
<th>First five trade partners of Iran</th>
<th>Export value</th>
<th>Share percent of non-oil export</th>
</tr>
</thead>
<tbody>
<tr>
<td>2000</td>
<td>UAE- Germany- Azerbaijan- Italy- China</td>
<td>1,409</td>
<td>37.4</td>
</tr>
<tr>
<td>2001</td>
<td>UAE- Germany- Azerbaijan- Italy- Japan</td>
<td>1,697</td>
<td>40.2</td>
</tr>
<tr>
<td>2002</td>
<td>UAE- Germany- Azerbaijan- Japan- China</td>
<td>1,728</td>
<td>37.5</td>
</tr>
<tr>
<td>2003</td>
<td>UAE- Germany- Azerbaijan- Japan- Iraq</td>
<td>2,520</td>
<td>42.2</td>
</tr>
<tr>
<td>2004</td>
<td>UAE- Germany- Japan- India- Iraq</td>
<td>3,087</td>
<td>45.1</td>
</tr>
<tr>
<td>2005</td>
<td>UAE- Japan- China- India- Iraq</td>
<td>4,600</td>
<td>43.9</td>
</tr>
<tr>
<td>2006</td>
<td>UAE- Japan- China- India- Iraq</td>
<td>6,075</td>
<td>46.7</td>
</tr>
</tbody>
</table>

Source: Central Bank of Iran

In 2000 the geographical distribution of non-oil exports according to countries indicates that the first five trade partners of Iran (U.A.E., Germany, Azerbaijan, Italy and China) with $1,409 million acquired a share of 37.4 percent of total non-oil exports, while the first two trade partners had a decreasing share of imports from Iran.
In 2001 the geographical distribution of non-oil exports indicates that the first five trade partners of Iran (UAE, Azerbaijan, Germany, Japan and Italy) with $1,697 million acquired a share of 40.2 percent of total non-oil exports.

In 2002 the geographical distribution of non-oil exports indicates that UAE, Germany, Azerbaijan, Japan and China with $1,728 million export from Iran accounted for 37.5 percent of non-oil exports.

In 2003 the geographical distribution of nonoil exports indicates that United Arab Emirates, Iraq, Japan, Germany and Azerbaijan imported a total of $2,520 million of non-oil goods from Iran which constituted 42.2 percent of our exports in this year.

In 2004 the geographical distribution of non-oil exports shows that the first five trade partners of Iran (United Arab Emirates, Iraq, India, Japan, and Germany) together imported a total of $3,087 million, i.e. 45.1 percent of the total non-oil exports.

In 2005 the geographical distribution of non-oil exports reveals that the first five trade partners of Iran (United Arab Emirates, Iraq, India, Japan, and China) together imported a total of $4,600 million, i.e. 43.9 percent of total non-oil exports.

In 2006 the geographical distribution of non-oil exports reveals that the first five trade partners of Iran (United Arab Emirates, Iraq, India, Japan, and China) together imported a total of $6,075 million, i.e. 46.7 percent of total non-oil exports.
In 2007, Iran's annual non-oil exports hit US$15.2 billion in 2007, indicating a growth of 15.1% compared to the previous year (2006) was US$13 billion (excluding liquid gases). Table below shows the non-oil goods export of different section in 2007.

**Table 3.4**

**Non-oil export goods in 2007**

<table>
<thead>
<tr>
<th>Goods Group</th>
<th>Value (US$ Million)</th>
<th>Weight (tons)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Petrochemical</td>
<td>2,788</td>
<td>6,675</td>
</tr>
<tr>
<td>Agriculture</td>
<td>2,267</td>
<td>2,611</td>
</tr>
<tr>
<td>Hand-woven carpet</td>
<td>397</td>
<td>10,721</td>
</tr>
<tr>
<td>Mineral materials</td>
<td>3,368</td>
<td>16,082</td>
</tr>
</tbody>
</table>

Source: Trade Promotion Organization of Iran

Figure no.3.3 shows the portion of non-oil goods export value combination in various divided section during the year 2007.

**Figure 3.3**
The breakdown of these exports is as follows:

- 38.6% of value of non-oil exports allocated to petrochemical sector, 32.2% to industrial sector, 13.1% to agricultural sector, 5.4% to mineral sector and 3.3% to hand-woven carpet.

- Industry and Petrochemical sectors had the highest share of Iran's total non-oil exports which went beyond 70%.

- Petrochemical goods allocated the highest share of total weight and value of non-oil exports and are exported to many countries such as Japan, UAE, China, India, South Korea, Italy, Singapore and Taiwan.

**Problems galore**

The carpet industry in Iran is facing several problems, the important of them are:

a. Competition from machine made carpets
b. Competition from other countries
c. Production bottlenecks
d. Weak distribution strategies
e. Lack of export orientation
Competition from machine made carpets

The hand woven carpets are facing competition from machine made carpets. As of now the main importance of machine made carpets from Iran include Afghanistan, Iraq, Pakistan, Turkistan and Kyrgyzstan. The demand for machine made carpets in European countries has not been more. Details of exports of machine made carpets to different countries for the period 2001 to 2007 is given in Table No.3.5. Further Table No.3.6 Gives the picture of exports of hand oven and machine made carpets.

Table 3.5

Export of Iran’s machine-made carpet from 2001 to 2007

<table>
<thead>
<tr>
<th>Year</th>
<th>Value (US$ Million)</th>
<th>Weight (one thousand Tons)</th>
<th>Target Markets (5 main countries)</th>
</tr>
</thead>
<tbody>
<tr>
<td>2001</td>
<td>5.1</td>
<td>21</td>
<td>Afghanistan, Iraq, Pakistan, Turkistan, Kyrgyzstan</td>
</tr>
<tr>
<td>2002</td>
<td>6.3</td>
<td>20.8</td>
<td>Afghanistan, Iraq, Tajikistan, Emirate, Uzbekistan</td>
</tr>
<tr>
<td>2003</td>
<td>110.9</td>
<td>41.7</td>
<td>Afghanistan, Iraq, Pakistan, Turkistan, Uzbekistan</td>
</tr>
<tr>
<td>2004</td>
<td>75.2</td>
<td>25.7</td>
<td>Afghanistan, Iraq, Turkistan, Uzbekistan, Tajikistan</td>
</tr>
<tr>
<td>2005</td>
<td>144.7</td>
<td>33.5</td>
<td>Afghanistan, Iraq, Pakistan, Turkistan, Tajikistan</td>
</tr>
<tr>
<td>2006</td>
<td>74.2</td>
<td>19.4</td>
<td>Afghanistan, Iraq, Turkistan, Tajikistan, Kyrgyzstan</td>
</tr>
<tr>
<td>2007</td>
<td>129.3</td>
<td>29.8</td>
<td>Afghanistan, Iraq, Pakistan, Turkistan, Arabia</td>
</tr>
</tbody>
</table>

Source: Compiled from Custom Document of Iran
Table 3.6

Iran’s carpet export from 2001 to 2007

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
<th>2007</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hand-woven carpet</td>
<td>552.6</td>
<td>514.3</td>
<td>539.1</td>
<td>471.7</td>
<td>466</td>
<td>413</td>
<td>397</td>
</tr>
<tr>
<td>Machine-made carpet*</td>
<td>5.1</td>
<td>6.3</td>
<td>110.9</td>
<td>75.2</td>
<td>144.7</td>
<td>74.2</td>
<td>129.3</td>
</tr>
</tbody>
</table>

Source: Central Bank of Iran
*Source: Compiled from Custom Document of Iran

**Domestic market suffers from machine-made carpet**

Iran's machine-made carpet production rate is higher than internal demand. In other words, consumption rate of machine-made carpet is directly related to the social welfare level. Therefore, the more the social welfare rises the demand for this product increases. In current situation, machine-made carpet production is higher than the demand, so from the end of 2005 issuing licenses for establishing machine-made carpet factories has not been first priority. But for developing current units the way is paved, since the manufacturers who are now producing and selling, have enough acquaintance with the new markets and also know how to create new markets and certainly will count on foreign markets accordingly. The Ministry of Industry statistics show there are 826 active units with 17,733 labors and they produce 96 million m2 machine-made carpets per year.

The main factors of Iran’s supremacy over our competitors are the color, designs and patterns of Persian carpet. This is an indigenous Iranian art and also part of our identity. Assuming that Iran has access to the same technology, machinery, raw materials
and expertise available to competitors, it would have superiority over them in designs and colors and our producers should make the most of this glory.

**Competition from other countries:**

Hand woven carpet of Iran is an important source of exchange income after petroleum and the most important non petroleum exports of the country. Iran carpet introducing a part of art and the culture of this homeland. The researches show that it is qualitatively the best in the world but quantitatively, it has serious competitors like China, India, Turkey and Pakistan.

**Table 3.7**

Hand-woven carpet export to other competitors from 2001 to 2006

<table>
<thead>
<tr>
<th></th>
<th>2001</th>
<th>2002</th>
<th>2003</th>
<th>2004</th>
<th>2005</th>
<th>2006</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Pakistan</strong></td>
<td>249</td>
<td>215</td>
<td>227</td>
<td>264</td>
<td>276</td>
<td>250</td>
</tr>
<tr>
<td><strong>India</strong></td>
<td>166</td>
<td>152</td>
<td>162</td>
<td>148</td>
<td>260</td>
<td>375</td>
</tr>
<tr>
<td><strong>China</strong></td>
<td>147</td>
<td>141</td>
<td>137</td>
<td>121</td>
<td>120</td>
<td>400</td>
</tr>
<tr>
<td><strong>Turkey</strong></td>
<td>69</td>
<td>52</td>
<td>46</td>
<td>64</td>
<td>66</td>
<td>90</td>
</tr>
</tbody>
</table>

Source: Trade Promotion Organization of Iran
It is observed that competitors on the international scene like China, India and Pakistan are marketing the carpets with Persian pattern and designs. Further they are offering the carpets at competitive prices. The carpet industry and the government have to develop strategies to combat the situation.

Countries such as India and Pakistan, on the other hand, are doing better in the international markets due to lower production costs. For instance, reports released by the management and trade centre of the material Iranian carpet centre indicate that the average monthly sales of carpet weavers in Iran was $61 in 2003, whereas in China, Pakistan and India it was $55, $51 and $23 respectively. Higher production costs in Iran meant Iranian hand-woven carpets averaged $26 per kilogram in 2003, with only $15.25 and $6.25 for Pakistan and India respectively.  

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4 Iran Daily newspaper, October 30, 2006, P:6
Production bottlenecks

These are internal factors and relate to production problems as well as policy decisions. Poor quality and higher costs are pressing issues which have led to a loss of the competitive advantage in international markets. Besides, most hand woven carpets are being produced by individuals and not factories. The production cost for hand woven carpets for factories are 50% more than those made by individuals. This is because they have to bear extra costs because of mandatory payment of allowance and insurance. Moreover, factories try to cut production costs by using poor quality materials and substandard wearing methods.

To a great extent, carpets woven by individuals cannot be controlled. That is why the industry is unable to meet the preferences and demands of international buyers for hand woven carpets.

Weak distribution strategies

The hand woven carpets are further handicapped for want of effective distribution strategy. The problem is more pronounced in case of individual producers. There is proper organization of industrial producers. As a consequence the producers are cheated by middleman and agents. Further the educational background of weavers has affected the marketing pattern. The literature is convenient exploited by the consumption agents and millennium. There is a strong case for protesting the interests of individual problems by the government.
Lack of export orientation

The carpet woven by the industry appears to have not kept in mind the needs of international buyers. It is true that Persian carpets have their unique designs and patterns depicting the Iranian culture and heritage. But protecting them in conventional and non-conventional international markets has not been done. There is a strong case to orient the units to produce the carpets keeping international market in view.

In the ultimate analysis, the above discussions will enable us to draw the following inferences:

a. Persian carpets have a deep rooted history in Iran.

b. Iran was a dominant producer of carpets in the world

c. The prominent importers were USA, Germany, Japan, France, Italy and Canada.

d. Hand woven carpet industry is labor intensive rural industry. There are 1.5 million carpet weavers in Iran, whereas 9-10 million people thrive on this key industry. At present a large number of women are working in the industry across the nation.

e. There has been consistent fall in the exports. It has come down from 60% in 1974 to 31.3% in 2007.

f. There is competition from machine made carpets in China, Pakistan and India are the competitors in the international market.

g. The industry is suffering from several problems both internal and external.