# **Carpet Afshar cluster development in Zanjan province**

Kamran Yeganegi<sup>1</sup>, Saeed Ghaffari<sup>2</sup>, Seyed Soheil Mousavi Doosti<sup>3</sup> Sara Housseini Arani<sup>4</sup>

<sup>1</sup> Department of Industrial Engineering, Zanjan Branch, Islamic Azad University, Zanjan, Iran

<sup>2</sup> Industrial Engineering-Industrial, PNU (Payam Noor University), Asalouyeh Branc, Iran

<sup>3</sup> Business Administration-Financial Management, Islamic Azad University, Abhar Branc, Iran

<sup>4</sup> Strategic Human Resource management Department, Farabi Complex of Tehran University

**Abstract:** Carpet Industry has importance from various economic, social and cultural aspects. From economic point of view, it has created the source of foreign exchange earnings and also job opportunities for more than a million people. From social point of view, the industry plays a very important role in maintaining and improving the optimal housing of population for development of carpet weaving in rural areas. From cultural point of view, carpet industry represents a part of Islamic Iran authentic identity as the art and culture of a nation is an evitable category. The handwoven carpets can be a good messenger for Iran noble history in other nations and countries. Nowadays, Iranian hand-woven carpet has international fame and this owns the nameless and artisan carpet weavers who portrays a painting with any warp and woof.

Keywords: Industrial Clusters, Carpet Cluster, Hand Woven Carpet, Afshar Carpets

## I. Introduction

One of the major challenges of Iran carpet in the past half century has been attention to needs, requests and desires of consumers and customers in the global market for Hand Woven Carpet. The traditional process of production and in general production of Hand Woven Carpet in home workshop and spreading of the category all over Iran as well as the traditional system which covered Hand Woven Carpet market and also limit using from technology makes Hand Woven Carpet society uses less from modern marketing science to develop or minimize Iran's share stabilization in the global market . Rapid changes in the consumption pattern of households, the emergence of new economic poles in the world, new political arrangements and relations and the most important, diversity of human ambition makes recognize the needs and tastes of the world market

#### II. Cluster Carpet Zanjan:

Zanjan Province has considered as one of the provinces with experience in carpet production and its annual production of 350 thousand square meters with 66,000 weavers represents the province's capacities and abilities in this field. Based on the executed programs according to the related ministry and Iran National Carpet Center and using from the active guilds unions in province , there are many plans have been happened as follow: supporting from carpet weaving concentrated and semi-concentrated workshops , weaver's insurance , training courses, bank payment, payment of export awards for exporters and identify obstacles and problems to resolve them, including the registration of carpet geographical areas, registration native designs and maps, developing exhibitions and large stores in the province , optimal use from available resources, promotion of nonuse of inferior raw materials in the production, development of customer order production.

<sup>&</sup>lt;sup>1</sup> Department of Industrial Engineering, Zanjan Branch, Islamic Azad University, Zanjan, Iran yeganegi@iauz.ac.ir

<sup>&</sup>lt;sup>2</sup> Industrial Engineering-Industrial, PNU (Payam Noor University), Asalouyeh Branc, Iran

<sup>&</sup>lt;sup>3</sup> Business Administration-Financial Management, Islamic Azad University, Abhar Branc, Iran

<sup>&</sup>lt;sup>4</sup> Strategic Human Resource management Department, Farabi Complex of Tehran University

# 2.2 Carpet History

It is not obvious that the first woven carpet as warp and woof has belonged to which lands, Iranian or Chinese or other ethnics? It is not known, but according to the researches in the field of weaving, the weaving cradle was the ancient civilizations of Egypt and Assyria. Tent decoration and using from carpet was the contents of the Torah in the migration of the Isra. In the half recent century, archaeological discoveries and finding famous Pazirik carpet dates back 2500 years in eighty kilometers from Mongolia border among Altany mountains, the ancient weaving center has shifted from the banks of the Nile and the Tigris and Euphrates rivers to Central Asia. In the carpet, there has been used from combination of The Assyrian and Achaemenid and Scythian maps and point of view of Olrich Shurman, the source of the woven carpets dates back to Azerbaijan, Iran. Professor Redenko has found another carpet in continuing his archaeological excavations at the distance of one hundred and eighty kilometers from Pazirik in a place called Basada others belongs to the Achaemenian époque weaver.

Zanjan Province is one of the carpet-weaving centers in Country but unfortunately there is not enough written works and comprehensive information about its record. Some of the written documents are related to a few historians and tourists who have passed from the region and wrote some writing briefly about the area industries and carpet-weaving. Jobber who has come to Iran, Zanjan in Fathali Shah Qajqr époque and he mentions in his travel account , page 154 about travelling to Iran and Armenia from Zanjan market(Bazar) and its passage way with shop (Timche) and purchasing the Afshar<sup>5</sup> tribes. He mentions that the Zanjan rule is by Afshar tent-dwellers (nomadic) and they presents their carpet, rug and silk woven in Zanjan market and in return they buy Mahut, guns, gunpowder and bullets. It is necessary to mentioned that Afshar is a name of Turk tribes and the most important clans were living in Zanjan . The civilized tribes of Afshar have become familiar with all kinds of carpets, carpet weaving and its delicacies through presenting in Iranian cities governor's office and participating in ceremonies and festivals with expensive carpets that they spread and pulled the techniques and skills into the villages. Afshar carpet is considered as the best ones from the quality of materials, used tissue, map variation and color stability and it is known for belonging to the tribe. Doctor Ali Hasoory who has field study more than nearly ten years (decades) on the carpet , believes that the background of carpet weaving in the west of Zanjan, Khordeh Aimaq & Angooran<sup>6</sup> villages, reaches to Bronze Age means 3500 years ago. According to the above, it is obvious that Zanjan Province has got acquainted with the art and industry many years ago and in Afsharieh Époque, carpet weaving with noble maps has been customary and is as one of the rural handicrafts and allocated a big share in production and employment beside agriculture and husbandry. The most of weavers are the rural women. Today, carpet weaving has spread in cities as well as villages and the men do it, too. Except native style, there are another styles for neighboring cities like Azerbaijan, Bijar and Qom.

## 2.2 Zanjan Afshar Carpet

Afshar Carpet are known as iron carpet for its quality and is well known in international markets. The reputation for fine texture, strength, quality pile in color and strong flexibility, originality, design, and color variety in the map and finally long life of the carpet. Carpets are divided into three municipal, tribes and rural and Zanjan Afshar carpets should classify in rural ones. Of course, there are active many carpet's looms in Zanjan City but in compare with the villages, it is in the second rank. Afshar Carpet is from handy crafts arts that is traditional and is weaving in many villages. The province is holder of suitable climate, natural pastures and mountain farming to produce carpets. Zanjan has high role in elevating Iran carpet weaving for the designers and manufacturers of carpets have played effective role in prosperity and revive of the industry and entering to the global markets have .The main part of used wool as here is the most important center of animal husbandry and grazing .

In comparing Zanjan carpets and Afshar carpets , Afshar has better market for pile quality . Its price is many times as much as Zanjan piles. For example, when the Zanjan pile is 1000 Tomans<sup>7</sup>, Afshar carpets is 8000 Tomans.

<sup>&</sup>lt;sup>5</sup> Countryside around the zanjan

<sup>&</sup>lt;sup>6</sup> Region in the province

<sup>&</sup>lt;sup>7</sup> Currencies in Iran

## III. Problems of Zanjan Afshar Carpets' industry

In the past, the carpet market was very hot as the merchandises and carpet's sellers went to different villages and order to the weavers but now for the carpet market stagnation, it is strange to order a carpet. The few orders are just for silk carpets.

Most of villagers wave their own carpets and refer to sell them to the city after finishing but for expensive carpets, first they take the order as their expenses are very high and usually the employer establish home loom in the weaver's house.

One of the factors which made the carpet's quality decreasing is inflammation. The carpet's price has not increased proportionate to inflammation and for this reason the weavers have to use from cheaper pile and also the numbers of knots would be bigger and less up to use less pile and shorter duration for weaving.

In the past, the weavers clean the piles before weaving to be clean and bright but they don't do nowadays. This makes decreasing from its manifestation.

No harmony between the effort and the remuneration has caused any inclination to carpet weaving. Now, only twenty percent of Zanjan carpet weavers are active. Most of them are villagers and just ten percent of them are urban weavers or professional carpet weavers. The carpets woven are sold in Zanjan, Mianeh<sup>8</sup> and Tabriz. According to the carpet seller's opinion, it is 5 years that carpet export has faced with a severe recession.

The suggestions of the carpet sellers to renew the market is making diversity in design, using from light color instead of traditional and old plan and color.

#### IV. Value Chain

To determine types of communication and its directions, it is necessary to study value chain. The research team has explained the value chain of carpet industry in figure 1. As we can seen from the figure: 25% raw materials supply cost, 25% shipping cost, 15% energy cost , 45% wages and salary, 10% used equipment cost and 2% the rest of other costs. The most expenses is wages and salary.



Figure 1: Value Chain

#### 5- (SWOT ) Table of Weaknesses Points , Weaknesses Points , Threats & opportunities

Strengths Points	Raw	Weaknesses Points	Raw
Closeness to the goods outlet port especially	1	lack of famous native merchant in hand-	1
Turkey and Caucasus as a Europe gateway		woven carpets Export	
Neighborhood of Zanjan with 6 provinces	2	Lack of centralized production and domestic	2
		producers in province	
Being installed of Zanjan in Tehran-Europe	3	Producing based on the same productions of	3
transit axis and Tehran-Tabriz-Jolfa railway		neighbors by non-native manufacturers	
Beneficiary of the local labor force	4	very limited advertising on hand-woven	4
		carpets	
opportunities	Raw	Threats	Raw
Support from private sector in production,	1	Staining pile using natural colors instead of	1
distribution, design domains		chemical dyes	
Providing raw materials	2	In recent years, the high-selling designs	2
		have accompanied with Afshar plans and	
		has diminished from their authenticity.	
Coordination and cooperation between	3	Many of the area's original plans had been	3
related organizations such as carpet National		forgotten	

<sup>8</sup> Name of city

Center, Relief Committee, Cultural Heritage, Ministry of Cooperatives, welfare and etc.			
There carpet cooperative workshops in Province that have the role of educative, propagation and supportive.	4	It is common to use from tanned wool.	4
Making insurance for carpet weavers	5	Daily moves of villagers towards cities and also new generation of citizens who wants to study and don't inclination to the job	5
Training of weaving by Agriculture Jihad	6	Industrializing of carpet production that makes a drop in quality	6
		Carpet tissue density has declined	7
		Using from Polyester has made prevalent in some cases to increase warp	8

# **Cluster Map:**

Based on the opportunities and threats study in Zanjan Afshar carpet cluster, to develop and making an obvious route, it should become documentation that is in Figure 2. This map shows the current state of the industry and its relationships with various beneficiaries .After compiling the strategy, the known deficiencies of the industry was determined and the future plans of this cluster were developed as Figure 3



Figure 2: Map the current cluster



Figure 3: Map of future cluster

# VI. Conclusion:

By appearance of machine carpets and its presentation with lower price in lieu of weaving carpets and also immigration of villagers to cities and inclination to city life and finally non-supporting of related organizations from carpet industry, all makes decreasing of delivery of weaving all over the country .What is obvious, decreasing of request for weaving carpet makes supply decreasing from providers. Indeed, the request for foreign markets for Iran hand-woven carpets is increasing. But here's a key question, how many carpet weaving cooperation and workshop familiar with export are there who have ability to export?

We mentioned earlier that the small-scale activities associated with the loss of markets. At such times the capacity of the cluster can be enhanced and elevated competitiveness. As above mentioned as well as the possibilities which will explain as follow, we decided to do Zanjan Province Carpet Industry Cluster.

-66,000 carpet weaver who are active under carpet weaving cooperatives and workshops and even individually. - 57% of Zanjan province population are villagers and the majority of them have animal husbandry that could help providing of raw materials for carpet industry. Stats people in the province -

- Possibility to establish related industrial units associated with the carpet industry, such as spinning, dyeing, industrial carpet washing

- Support from the government policies to remove deprivation

The prospects for developing and implementing the goals that can be achieved carpet spikes are:

- Nurture and revitalize the carpet industry

- Improving the weavers' livelihood

- Increasing of employment growth in the province, especially in the villages
- Increasing the Competitiveness of hand-woven Carpet
- Making upstream and downstream units associated with the carpet industry
- Acknowledgement

The authors would like to gratitude and thanksgiving from cooperation and assistance of Mr. Mohammad Ali Babaei and Mr. Hassani .

## **Resources**:

- [1] Yeganegi, Kamran. Introduction to export-oriented business clusters. Tehran: business publishing company, 2010.
- [2] Edward Cecil, Iranian carpets, translated by Mahindokht Saba, Tehran, Farhangsara
- [3] Sobooti Hooshang, Zanjan history, Tavana, Fourth Edition, 1998
- [4] Khaleghi, Mohammad , Zanjan Province , Zanjan, Afshar tribes land, Zanjan University research deputy 2001
- [5] Nasiri, Mohammad Javad, a travelling in Iran carpet weaving art, Tehran, author, 1995
- [6] Hossein Ghorbani, a vision of Zanjan carpets woven and the advantages of the production and export, published in 2011
- [7] Iran National Carpet Center, http://www.incc.ir/
- [8] Iran Carpet Company http://www.irancarpet.ir/
- [9] Zanjan Guild union of producers and handy -carpet weavers http://www.zanjanfarsh.ir/