

**Research Article**

## **THE INVESTIGATION OF THE IMPACT OF EFFECTIVE ECONOMIC FACTORS ON FORMATION OF ARCHITECTURE IN ROUTE OF ISFAHAN BAZAAR**

**\*Valibieg N.<sup>1</sup>, Babae H.<sup>2</sup> and Bayat P.N.<sup>2</sup>**

<sup>1</sup> *Doctor of Restoration of historical contexts, Assistant Professor and Faculty Member of Isfahan Art University*

<sup>2</sup> *Department of Architecture, Islamic Azad University, Shahr-e Kord Branch*

*\*Author for Correspondence*

### **ABSTRACT**

Market has long been considered one of the commercial centers that determines economic destiny. Ancient covered (indoor) markets, applying in past architecture, not only lost their economic importance over time, but also achieved remarkable developments. This study creates some areas of revealing the effective factors of formation and architectural structure of today's market. There is a direct relation between placement and arrangement of Isfahan covered bazaar spaces with its economic elements. Scholars mostly studied market's social and cultural aspects. This paper specifically studies the formation trend of Isfahan market architecture with effective factors including economic factors. This research is based on library studies on one hand; and field studies, on the other hand. The paper tends to study the formation of market route architecture and its development regarding past economic patterns. First, the paper presents the history and background of covered (indoor) bazaar; then, studies Isfahan indoor bazaar in terms of effective factors on architecture including economic factors. The conducted studies reveal that 1. Economic factors like similar occupations in market are effective factors of forming market route. 2. Isfahan market elements such as Caravansary, Serra (Saray) and Timche are commercial centers that influence forming market architecture.

**Keywords:** *Market Route Architecture, Economic Factors, Isfahan Covered (Indoor) Bazaar, Order (Rasteh/ A Series of Shops), Forming*

### **INTRODUCTION**

Market is considered main city elements, which plays a fundamental role in urban developments. Isfahan large covered bazaar is Iran's second largest commercial centers after Tehran large bazaar. This market is a commercial complex with specific architecture (Sarami, 2007). Its activity can be regarded as one of the critical criterion in evaluating each city progress and development. Market is directly associated with people's daily life and is the economic and social attraction key element. The role of traditional bazaar clearly defined in city and community. This role can introduce itself in a larger urban context through its values.

Covered bazaars (shopping malls) with a long history and old, ancient construct have been the focus of establishing economic and social activities up to now. So, the present research tends to study effective factors on market architecture.

In these architectures, remarkable attempts have been done to integrate various elements. The way large and small market spaces connect to market main axis creates a cohesive and integrated complex, which is appealing to citizens. Previous scholars studying social and cultural aspects embodied in market, less focused on economic aspect. This research initially introduces Isfahan market; then, provides effective factors of architecture form and their significance. This paper attempts to answer the following research questions:

1. Does Isfahan covered bazaar, with its particular and coordinate architecture, reconstruct and recover economic activities?
2. What are fundamental economic elements and relations of Isfahan market route?

## **Research Article**

To answer the questions, effective factors in context including market elements placement and arrangement are studied. On the other side, each market cells and peripheral factors are explored using library and field studies.

### **1. Research Background**

Covered bazaars (shopping malls) have built in different economic periods and usually created two entrances for cities. These markets embraced a large order, which include elements such as Chaharsoughi, Serra (Saray), and Timche as supplementary and some other critical components like bath, and teahouse for commercial and business affairs (Tehrani, 2012). Another researcher also considered this issue. The structure of covered bazaars is Iranian art symbol as its components including order (Raste), Tim, Timche, Serra (Saray), Caravansary, Chaharsoughi, Khanbar all together, and other elements such as bath and teahouse create a chain of social and economic relations based on a particular unity, which lead to a quiet environment.

Architectures in designing these bazaars attempted to establish a space that meets all urban economic needs (Amirazodi, 2012). Traditional bazaar was a public place and a major part of commercial activities in Iranian cities. Meanwhile, all economic transactions as well as social activities occurred there (Assari, 2011). As these bazaars were surrounded by shops and rooms (Hojreh) on one hand; and were a place for business, walking, social communication, and cultural interaction, on the other hand; therefore, they can be considered public environments in city (Zahedian and Moosavi, 2013).

Bazaar, in Iranian cities, was a place for people's social, economic, political, and cultural activities. The main transport routes in many historical cities interacted with shop series. Therefore, bazaar played a role in the form and design of city. Traditional urban structure shows that the market usually takes a linear form to where it works as city backbone continuing to the city's main gate. A bazaar consists of main elements including order (a series of shops), Tim, Timcheh, Caravansary, Saraa. The secondary elements are school, mosque, bath, and Assarkhane (Mill) (Pourjafara, 2013).

Another researcher emphasizes on market economic aspects in the framework of capitalism and exploitation. Traditional bazaars are focus of commerce, wholesale and retail trades, craftsmanship, and other economic activities. In addition, traditional market is also a critical urban element. Market system, in appearance, is not composed of one space, rather it is an interrelated set of elements, and components form based on activities' types and existed occupations (Ziya, 2001).

Bazaar is the characteristic of Islamic cities playing a decisive role in determining various parts of the city. It is the major economic and financial center in city construction, in which wholesale and retail trades as well as different institutes like financial institute are located. This center works as an economic and financial system control center, which embraces specific functional elements, particularly assigned to bazaar economic system such as Carvansari, Timche, as well as Caesarea. Offering similar goods in near-situated shops (rooms) along market order and Timche provides a proper choice making opportunity to customers (Tavassoli, 2002). Traditional markets structured in a way that similar occupations went together in order to facilitate the purchase. In fact, bazaar creates a massive opportunity for customers to compare the products' qualities and prices (Azadi, 2012). Isfahan market, like all other covered bazaars in Iran, divides into three sections:

1. Order (Rasteh/a series of shops or backbone) and suborder are primary and secondary routes, respectively, which named according to business located on the way.
2. Caravansaries (Inns) which are economic complexes for merchants.
3. Serra (Khan) is smaller economic complexes trade a single good (product) (Mehdipour and Rashidi, 2013).

Indeed, Tim and Timcheh were economic factors of traditional markets as business centers. On the other hand, Chaharsooghi (head) was the origin of market major branches and a business center of expensive goods (Amirazodi, 2012).

A researcher also introduced previous caravansaries. Caravansaries have formed inside and outside cities as business centers since ancient times. The researcher studied inside caravansaries, which led to business development (Bryce and O' Gorman, 2013). Inside Caravansaries got special significance and developed

## Research Article

during Safavid such that particular goods were traded in each caravansary and the merchants were allowed to vend in terms of their merchandise. 40 caravansaries named in a written scroll are available at the Museum of Great Britain that each traded a certain product (Cladis, 1994). Caravansary is a public entity that originated through pre-Islam commerce culture. According to archeological surveys, caravansaries are the place to buy and sell goods (Na'aman, 2012).

Another researcher studying Caesarea believes that the operational difference of this section to other market sections is that it was the market of luxurious goods including jewelries (Ziya, 2001). Bazaar is the most appropriate business and commerce center that human being has ever invented. It can be expressed that bazaar is the best center of producing as well as distributing products and transactions. In general, market business function divides into some parts of selling: 1. Retail trade in specialized markets and shops; 2. Wholesale in Serra (Saray) and caravansaries (Pour, 1997).

### 2. Research Methodology

Studying covered bazaars includes a wide scope. Regarding this issue, Isfahan historical market is one of the only Iranian Bazaars, which more than 90% still keep up its economic activities. However, this trend cannot be seen in many other traditional and covered Iranian bazaars in other cities. On the other side, Isfahan market location in the middle part of city connecting two different historical contexts is the other factor of studying this bazaar. Construction and designing style of covered markets is such that it embraces caravansary, Sara, Timche etc, which affect building shape and form; so, this research studies this factors. Research procedure, initially, started with library studies including searching books and papers to discuss the subject matter background knowledge and research questions. Studies will provide access to following factors: 1. recognizing the architecture of Isfahan covered bazaar, 2. finding bazaar's economic factors, and elements. Then, followed by library studies were field studies containing interviews and observations. This study seeks for applying users' attitudes including workmen and informed ones. Studies were completed through observation, photography, data collection, as well as interview. Lacking of similar resources as well as accessible scientific resources are research limitations. According to collected data and studying the factors, the relation between architecture formations of Isfahan bazaar route with economic factors is demonstrated.

### 3. Background and Causes of Bazaar Emergence in Isfahan

The term 'Bazaar' was named 'Vakaar' in Pahlavi, which over time transformed into 'Bazaar'. In ancient Persian, it is 'Aba kari' meaning concourse and dealing place (Dehkhoda, 1987). Bazaar as an urban-economic entity was established in productive-commercial cities. Dictionary of the Bible refers to significant aspects in defining bazaar term including economic aspect and social aspect; however, this research discusses economic aspect (Hax, 2004). Isfahan main elements are located on the main axis or city's backbone. Bazaar area around the Old Square was of particular economic importance in previous periods and small associated markets were formed near city gates and along with its communication axes (Iran, 2009).

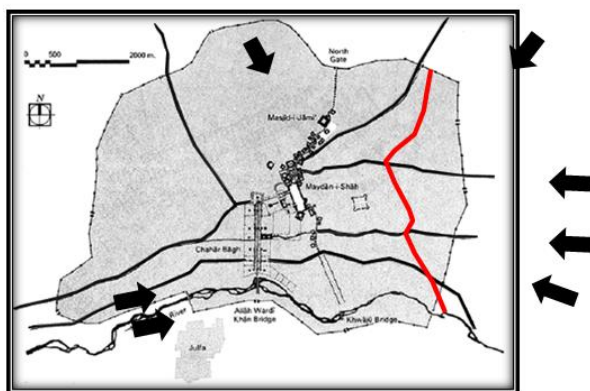


Figure 1: Bazaar position and Isfahan gates (Ardalan, 2001)

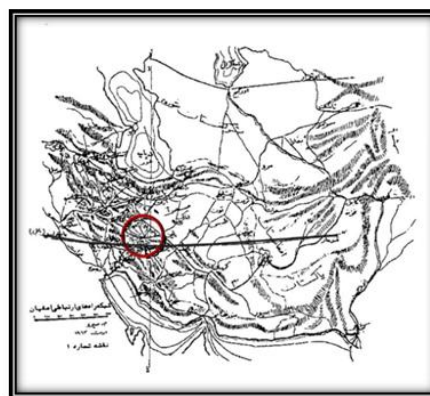


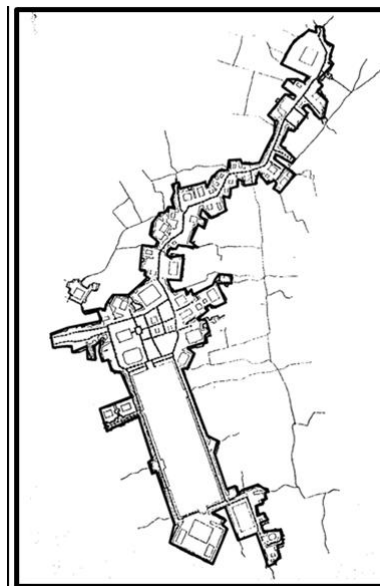
Figure 2: Isfahan communication roads network (Maxim Cyro, 1978)

## Research Article

Bazaar's main passages, as one of the major urban elements, comprised the main urban communication and traffic network (Tavassoli, 2002). Bazaar started from Jāme'h Mosque (congregational mosque) and Old square of Isfahan linearly along with city gate and extended into a network to the north of Naqsh-e Jahan Square; and finally, surrounded Naqsh-e Jahan Square (Iranian Bazaar, 2009). Indeed, it reached to Toughchi Gate from northern part and to southern gate from South, which is still a significant section of that bazaar known as Hassan Abad Bazaar.



**Figure 3: Isfahan bazaar passage**



**Figure 4: Bazaar physical form (Saremi and Raad Mard, 1997)**

Following the conducted studies, scholars concluded that economic factors play an effective role in forming the architecture of Isfahan covered bazaar, the main factors are as follows:

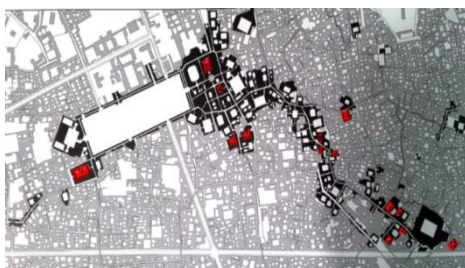
### 1.4- Order (*Rasteh*) and Suborder

Isfahan covered market consists of main passages naming order (*Rasteh*). The main structure of these markets is formed through arrangement and placement of orders. Orders are usually more prosperous due to high traffic of people in comparison to other sectors. Order in Isfahan bazaar is called Large Bazaar or sometimes as Shahi (King) Bazaar which has an indirect route. It possesses several accesses in order to deliver merchandise to market. It reveals that bazaar architecture was such that passengers and goods delivery had separate routes. Some branches called suborders were separated from bazaar main order. Each suborder trades similar goods and materials. In fact, orders were named in terms of occupation type such as shoemakers (*Kaffash Garha*), textiles (*Chit sazha*), Jewelers (*Zargarha*), coppersmiths (*Mesgarha*) etc (Soltan, 1997). Designing measured narrow width primary and secondary passages caused a close agreement between two orders of shops. The other positive point is that the buyer could see the goods on both sides; so, there was no need to return.

Activities and occupations were spatially distributed as follows:

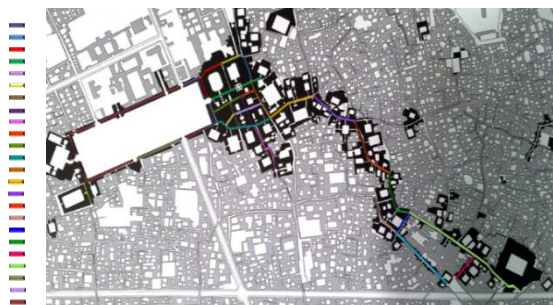
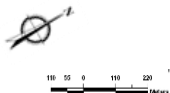
- Occupations accumulated depending on activities' characteristics and consistencies to each other. In this way, placement of artisans in a particular occupational system next to each other and in an order offering similar goods make each suborder select a particular market presenting its similar goods to give an opportunity of free choice for buyers by seeing and comparing the goods.
- Different professions were located in different places. For instance, luxurious industries were not in the same suborder with inexpensive industries. Noisy industries such as blacksmiths and coppersmiths located farther than other orders in order to avoid disturbing other buyers and passers.
- The specialized sectors of bazaar such as coppersmiths, shoemakers, and leather shops suborders cause economic competition among sellers and business through producing and selling their products.





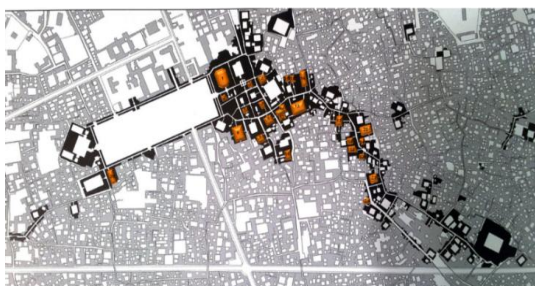
**Figure 5: Isfahan Bazaar Caravansaries Plan**

1. Calico printing Caravansary
2. Sang Tarashan Caravansary
3. New Caravansary
4. Indian Caravansary
5. Mirza Ismail Caravansary
6. Shah Mahi Caravansary
7. Burnt Tree Caravansary
8. Khani Caravansary
9. The Ardestanis' Caravansary
10. Mat weaving Caravansary
11. Kheyar Caravansary
12. Shekar Beyk Caravansary
13. Jafaar Abadei Caravansary
14. Maghsoud Beyk Caravansary



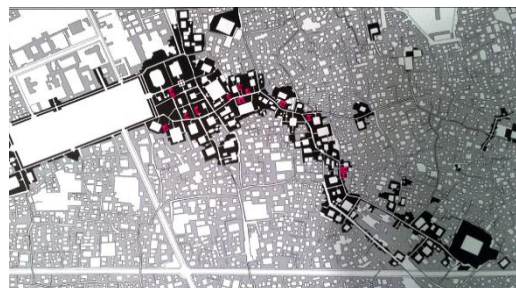
**Figure 6: Isfahan Bazaar Orders Plan**

- Torkoshdouha Market  
 carpet market  
 shoemaker market  
 Mint Market (Caesarea)  
 Meysami Market  
 Assari (Mill) Market  
 Gun-maker market  
 Goldsmiths market  
 Kashi Coffee Market  
 Davaat Garha Market  
 (Ink market)  
 Brocade market  
 Mokhles Market  
 Dar Al SHafa Market  
 Golshan Market  
 Marjet in the Garden  
 Nim Avaar Market  
 Harounie Market  
 Straw Market  
 Abbasi Garden Market  
 Rope Market  
 Arab Market (Nezamie)  
 Blacksmiths Market  
 Maqsoud Beyk Market  
 Square Market



**Figure 7: Isfahan Bazaar Serra plan**

1. Shah Serra
2. Shele Serra



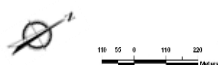
**Figure 8: Isfahan Bazaar Timche and Chaharsoughi plan**

1. Jahangiri Timche

## Research Article

3. Sefidgarha Serra
4. Haddadi Serra
5. Malek Serra
6. Mokhles Serra
7. Ali Naghi Serra
8. Mohammad Sadeq Khan Serra
9. Monajem Serra
10. Saroutghi Serra
11. Aftabgah Serra
12. Diyani Serra
13. Golshan Serra
14. Fakhr Serra
15. Master (Arbab) Serra
16. Jarchi Serra
17. Haj Karim Serra
18. Mirza Koucha Serra
19. Long corridor Serra
20. Hall Serra
21. Morvarid Kishha Serra
22. Sepid (White) Serra
23. Agha Serra
24. Harooni's Serra
25. Abbas Yavari Serra

2. Malek Timche
3. Nabi Timche
4. Kashi Coffee Timche
5. Haj Reza Timche
6. Haji Karimi (Poosti) Timche
7. Nakh Chiyan Timche
8. Arbab Timche
9. Qazvinian Timche
10. Sadat Timche
11. Haji Mostafa Timche
12. Agha Jan Timche



The architecture of Isfahan Bazaar and coordinating its elements' arrangements including Caravansaries, Serra, Timche, and Chahrsoughis along with orders and suborders response to economic activities and functions



Figure 9: Isfahan Bazaar constituting elements plan Iran Bazaar (2009)

### 2.4- Khanbar

There was a place, in vicinity of caravansary, named Khanbar (goods storage) which was the main place of storing and maintaining goods. In addition, packaging and sorting workshops also located near this site. A good entered into Khanbar through a passage; then, it transferred to caravansary (Pir, 1991).

## **Research Article**

### **3.4- Carvansara**

Caravansaries were one of cities' economic foundations. Establishing urban and suburban caravansaries developed economy in cities. Caravansaries often situated near city gate (city entrance) or in uncovered markets. Caravansary is a combination of Caravan (Caraban) meaning a group of passengers traveling together, and Serra referring home and place. Both words originated from Sassanid and Pahlavi (Carvankhane, Carvangaah and Carvan gah were used as Caravansary). Caravansaries were the places that merchants delivered and stored the goods (Claddis, 1994).

### **4.4 Serra (Sara)**

Serra consisted of Mian Sara and several shops around. Sample good took from Mian Sara and distributed to other places. Serras were residence and consulting places of merchants on prices and business operations (Pir, 2008).

### **5.4- Timche**

Large and small covered Serras are called Tim and Timche, respectively. Single-product trade in Timche was of the factors that distinguish Timche and Serra (Pir, 2007).

### **6.4- Caesarea**

The orders selling expensive goods including professions such as jewelry and silverwork named Caesarea. Isfahan Caesarea constituted Bazaar main entrance naming Chitsazha bazaar (cotton / textile market). Well-known bazaar mint and King Serra were located at eastern and western areas, respectively. Caesareans concentrated on selling one type of goods.

### **7.4- Chaharsooghi (Head)**

The intersection of the two orders in bazaar is called Chaharsooghi or Chaharsoo (head) which is usually one of bazaar's centers with high economic value. Indeed, former urban planners and architects established specialized commercial centers by structured and organized designing of Bazaar in order to enhance its economic prosperity. In this way, the coordinated elements were on bazaar way. Cash transactions were other important factors in bazaar, which are basics of business. Therefore, a place naming 'Dealers and money exchange' center was founded at market center, which exchanged money. Its central location makes accessibility possible to bazaar different places. On the other hand, indoor (covered) market was a positive point that sheltered buyers and vendors from cold, heat, rain, and storm. Generally, not only bazaar was warmer in winter, safe from ice and snow, but also it was cooler with a more moderate weather in summer.

## **Summary**

Isfahan covered bazaar is located in the middle of city in consistent context with linear geometry from Old square to Naqsh-e Jahan Square. The market is still stable in terms of economic and commercial services and welcomed by citizens and visitors (Figure 4). Important architectural factors influenced its economic activities such as dividing bazaar into major and minor passages involving in transporting passengers as well as delivering fellow goods. Such architecture can lead to a competition among a particular occupation as they are next to each other. (Today, the markets are no more like this and particular occupations are outspread) (paragraph 1). On the other hand, dividing bazaar architecture into places such as Caravansary, Tim and Timche indicate the knowledge of ancient architects and urban planners in boosting bazaar economy (Figures 6-8). They defined bazaar route (pass) along with its constituting elements. For instance, Khanbar and Caravansaries, responsible for storing goods, were particularly considered. They were responsible for unloading cargos, separating them into smaller pieces; and then, distributing them in the shops located in long major and minor passages. However, caravansaries located inside bazaar also confirmed the architect and urban planner capability in boosting bazaar economy (paragraphs 2, 3). Serras (Sarays) also independently influence designing economic spaces in bazaar (paragraph 4). Beside these, spaces such as Timche and Caesarea were designed for single-product transaction and merchants consulting on prices (paragraphs 5, 6). Moreover, some places such as exchanges were located in places that not only increases security, but also provide the accessibility to different parts of bazaar (paragraph 7). In general, the placement of each spaces in proposition to the total as well as how they are related to, in one side; and occupation spatial distribution

### **Research Article**

in bazaar, on the other side, influenced on establishing and forming the architecture of Isfahan bazaar route (Figure 9).

### **Conclusion**

The research findings show that bazaar architecture directly influences on rehabilitation bazaar economic activities. For instance, covering of bazaar against cold and warm weather and air conditioning (paragraph 7), proper width of thresholds (entrances), easy traffic, establishing suitable accesses and passages to bazaar spaces, the variety of different spaces, specialized presence of bazaar divisions in buying and selling the products (paragraph 1), all demonstrate the direct effect of architectural structure of Isfahan covered bazaar on economic activities.

Isfahan covered bazaar consists of Khanbar, Caravansary, Serra (Sara), Timche, and Caesarea with different scales and performances to develop economy (paragraphs 2-6). These structures, regarding the consistencies, were formed focusing on business and increasing bazaar economy (Figure 9). Factors such as locating similar occupations in an order or in vicinity and making a choice in a short time are other effective economic factors of determining bazaar route like jewelers market, shoemakers market. On the other hand, different professions were separated in such a way that the passer could recognize different and distinguishable spaces (paragraph 1).

### **Further Recommendations**

Scholars believe that cultural aspects are effective factors of forming bazaar structure. This paper also presented economic factors such as Order (Rasteh), Caravansary, Serra, and Timche as the factors that influence the structure of Isfahan covered bazaar. On the other hand, it studied the consistency between bazaar routes with its constituting factors, regarding its particular geometry. This research can also concentrates on climate aspect and initiate other areas based on climate approaches or effective approaches of uncovered bazaars.

### **REFERENCES**

- Ahaari Zahra (2001)**. Isfahan School of Urban Development. Tehran: University of Art.
- Amirazodi Aida(2012)**. Iranian Bazaars: The Illustration of Stable thoughts. International Science 6.
- Ardalan Nader(2001)**. *Unity*, translated by Shahrokh H Isfahan (Khak Publication).
- Assari Ali(2011)**. Comparative sustainability of bazaar in Iranian traditional cities: case studies in isfahan and tabriz. *IJTPE Journal* 3(9) 18-24.
- Azadarmaki Marzieh (2012)**. The Emergence of Shopping Centers and the Synchronic Continuity of the Tadjrish Traditional.
- Bryce Derek and Kevin DO’Gorman(2013)**. Commerce, empire and faith in Safavid Iran: the caravanserai of Isfahan (Limited) 25(2) 204 - 226.
- Claadis Wlfram(1994)**. *Iranian Caravansaries*, translated by Kiyani MY (Cultural Heritage Organization, Tehran.
- Dehkhoda AliAkbar(1987)**. *Dehkhoda Dictionary* (Islamic Parliament publication) Tehran.
- Hax James(2004)**. Dictionary of the Bible.
- Iran: An Experience in Documenting Bazaars(2009)**. Iranian Bazaar. College of Fine Arts of Tehran University: Jahad Daneshgahi.
- Islamic Encyclopedia Foundation(1993)**. Encyclopedia of the Islamic World. Tehran.
- Mehdipour Armin and Hoda Rashidi Nia(2013)**. Persian Bazaar and Its Impact on Evolution of Historic Urban Cores -the case of Isfahan. A multidisciplinary journal of global macro trends.
- Mir Salim Mostafa(1993)**. Encyclopedia of the Islamic World. Tehran.
- Mohammad Moradi Asghar and Fatemeh Nassabi (2007)**. Bazaar of Tabriz; a sustainable architecture and urban area in Sustainable Urban Areas.
- Na'aman Nadav(2012)**. Ancient Caravanserais: An Archaeological View from 'Aroer. Tel Aviv 1 5-41.
- O’Gorman Kevin D and Prentice Richard C(2008)**. Iranian hospitality: from caravanserai to bazaar to reporting symbolic experience. EuroCHRIE 2008 Congress.
- Pir Niya MK(1991)**. About Urban and Traditional Architecture of Iran. Abaadi 1(1).



**Research Article**

**Pir Niya MK (2007).** *An Introduction to Iranian Islamic Architecture*, translated by Memariyan GhH Tehran: Soroush Danesh.

**Pir Niya MK(2008).** *Iranian Architecture*, translated by Memariyan GhH, Tehran: Soroush Danesh.

**Pour Ahmad Ahmad(1997).** Geography and Kerman Bazaar's functions. Kerman: Center of Kerman shenasi.

**Pourjafara Mohammadreza(2013).** Role of bazaars as a unifying factor in traditional cities of Iran: the isfahan bazaar.

**Sarami Hosein(2007).** Physical Study of Isfahan Large Bazaar.

**Saremi AliAkbar and Raad Mard Taghi(1997).** Stable Values in Iranian Architecture. Tehran: Cultural Heritage Organization.

**Shafaghi Sirus(2009).** Isfahan Large Bazaar and Caesarea.

**Siro Maxim (1978).** *Monuments of the Ancient Ways and their Affiliates*, translated by Mashayekhi M. Tehran: National Organization for the protection of antiquities.

**Soltan Zade Hosien (1997).** *An Introduction to the History of Urbanization in Iran* (Amir Kabir) Tehran.

**Soltan Zade Hosien(2001).** Iranian Bazaars. Tehran.

**Tavassoli Mahmud(2002).** Urbanism and Architecture in Iran Hot and dry Climate. University of Tehran: Faculty of Fine Arts.

**Tehrani F et al.,(2012).** Organizing Plan of Amir Sara and Timcheh Complex (Bazaar of Tabriz), *Journal of Basic and Applied Scientific Research* 2(5) 5382-5388.

**Upham Pope Aurtor (1986).** *Iranian Architecture*, translated by Afsar K. Iranian history and culture.

**ZahedianElmira and Mir Saeed Moosavi(2013).** A Morphological Approach to Characterization of Urban Space in. *Applied Environmental and Biological Sciences* 2090-4274.

**Ziya Tavana and MohamadHosien (2001).** *Lar Caesarea Market* (Ney) Tehran.