

# Satisfaction of Residents of Tehran Residential Towers from Cultural Aspect (Case Study: A.S.P Residential Tower and Tehran International Tower)

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**ABSTRACT:** Today, urbanization (living at apartments) phenomenon as the most common type of residence of cities has been changed so that mainly reflects the chaos in this area. Too much attention paid to economic indicators compromised the balance in the housing sector and created a new type of buildings. The occurred changes indicate ignoring cultural characteristics, less attention paid to cultural concepts, moving away from Iranian traditional architecture and as a result, low quality of life in residential complexes. Low quality of life from all dimensions, spiritually, mentally, and physically, in residential complexes, due to its special circumstances such as high population density, caused discontent of residents which itself led to other types of problems including unfamiliarity and lack of willingness to communicate with others and the environment and in other word, low social interaction between people, etc. that needs to be addressed. The purpose of this paper is to assess satisfaction of residents of two residential complexes of Tehran International Tower and Nobonyad Tower, and identify factors affecting on it and as well effect of cultural indicators on it. The present study is an applied research in which about 20 residents of the two complexes were randomly studied. The residents' satisfaction with regard to the intended measures were evaluated and compared by questionnaires. The results suggest that there is a direct link between increased cultural indicators and higher quality of life and therefore satisfaction of the residents.

**Keywords:** Culture, Residential Complexes, Quality of Life, Satisfaction

## INTRODUCTION

Population growth and the expansion of cities have led to too much problems that searching and finding ways to solve them has become one of the main challenges of urbanization policies. Turning to high-rise building can be considered as one of the most important strategies in this area. Construction of high-rise buildings from its inception as an achievement of modern architecture was grown significantly for some reasons including the speed of construction (industrialization), high density (accommodation of more persons). But in the course of time it caused another type of problems the most important of which are exclusively focus on performance, ignoring the culture and less human interaction. "Today expansion of urbanization and industry, followed by mass construction and

functionalism removed symbolic meanings from the urban scene and turned it into meaningless and depersonalized buildings. Symbolic establishment that shows identity crisis has changed the whole face of cities. (Bahraini, 2003, 228-229). Ignoring cultural concepts as one of the factors affecting the housing in addition to economic, social and demographic factors have resulted to lower quality of life in the residential complexes.

The phenomenon of high-rise building in Iran, regardless of meeting high demand for housing, due to lack of necessary conditions and systems to create a type of high-rise building harmonized with the society culture (resulted due to lack of proper understanding of the concept of indigenous and ethnic identity) and also incompatible with the conditions and needs of contemporary society, has been always accompanied by dissatisfaction of the residents with their life environment.

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Turning the housing into capital, inflation, speculation in the housing sector as a result of diminishing role of the architect and importance of architecture have added fuel to the arising problems. According to what above said, the rapid pace of migration to Tehran and big cities of Iran and as a result, population growth and population resettlement policy like serial construction and turning to the mass construction, especially in the countryside (since early 50s) have been important factors in defining a new concept of house and residence that impacted on spatial organization of houses and were mainly not compatible with individuals' lifestyles.

This study measures satisfaction indicators in residential complexes and explains its relationship with any use of cultural implications in the design of residential complexes and ultimately provides solutions in this regard. To this end, at first the concept of satisfaction is defined in housing area and then situation of cultural factors in the increase of satisfaction of residents of Tehran International Tower and Nobonyad Tower will be evaluated (the study cases are selected based on the index rate and the years they have been constructed). Finally, according to the obtained results, strategies will be presented to improve the quality of life in residential complexes.

## MATERIALS AND METHODS

This Article is a qualitative research in which tall buildings are evaluated and finally the relationship between the impact of improvement of spatial quality and resident's satisfaction as a result. On this basis, 2 complexes will be reviewed which is called A.S.P Residential Complex and Tehran International Tower. These two complexes are designed for rich people in 2 different periods of times.

### Concept of Satisfaction

Satisfaction is always associated with the concept of quality of life. Several definitions are presented for quality of life but in general it can be said that quality of life has no clear meaning and this concept is not the same for everyone. In other words, quality of life is a multidimensional phenomenon that has indicators and criteria that the resultant of which improves quality of life in the communities. Economic, health, education, environmental, etc. development are some of these cases.

Asezaly stated that quality of life refers to the degree or feature of life satisfaction. The current status of person and his comfort and satisfaction with life are determined by the facts and external (objective) factors of his life on one hand, and on the other hand, by understanding and his internal (subjective) evaluation of these factors and the reality of life. According to Lansing and Maranz, satisfaction is one of the main criteria for assessing environmental quality and they define quality of environment as follows: "A good quality environment will provide its population with well-being and satisfaction through physical, social or symbolic features". (Ahmadpour et al., 2010)

Satisfaction literally means consent, satisfied, the pleasure of the thing or place (Sayah, 1999). Satisfaction is a broad concept influenced by various personal, social, economic, cultural and physical factors. The satisfaction points to a wide range of desires and desirability to meet the basic and excellent needs of man. In a study conducted by Lansing and Maranz in 1969, satisfaction was proposed as one of the main criteria for evaluation of environmental quality and they defined the quality of the environment such that: "A high quality environment will transfer well-being and satisfaction to its population through features that may be physical, social or symbolic. (Rafieian et al., 2009).

### Evaluation of Indicators Affecting Satisfaction in Residential Complexes

Overall Satisfaction of Residents based on analytical models of Amerigo & Aragones in residential complexes can be studied at 2 levels: objective satisfaction at the first level and subjective satisfaction at the second level that their resultant causes satisfaction and thus the survival of the community itself (Amerigo & Aragones, 1997). Meeting material and spiritual needs of man leads to higher quality of life. Kastanza defines quality of life as supply of the people needs in relation to their perception of subjective welfare. (Mehdizadeh, 2003)

What is mainly ignored in today's architecture of Iran is spiritual aspects that means presence of the addressees and their connection with architecture. As a result, what has been achieved is low quality of life and satisfaction of people (Because quality of life is the result of interaction between the frame and the operator) that has been one of the fundamental concepts of traditional architecture in Iran. In recent years, with the fading of modernization and development of anthropological sciences, paying attention to the man, his desires and as well his relationship with architecture (In relationship between designer, addressee and product) especially in residential spaces is highly regarded.

Given the importance of indicators to assess the satisfaction of housing is provided by the researchers such that it can be mentioned the famous model of Vanpoll. From his perspective, these indicators include physical features (the space facilities), internal conditions (noise from neighbors, odor, air pollution), outside facilities (including public facilities, prospect, natural light and etc.), possibility to stop the vehicle and costs (Vanpoll, 1997). Based on the foregoing, it can be generally classified in the residential satisfaction. (Fig.1)

The Study is continued with studying the satisfaction of its features at various levels:

Explanation of material needs in satisfaction;

Providing shelter has been always one of human needs to continue his living. Then house, from its physical;

dimension, has always been one of the fundamental issues and taken a wider scale in the recent years. From material aspect of the housing we can point to the following factors. (Table 1)

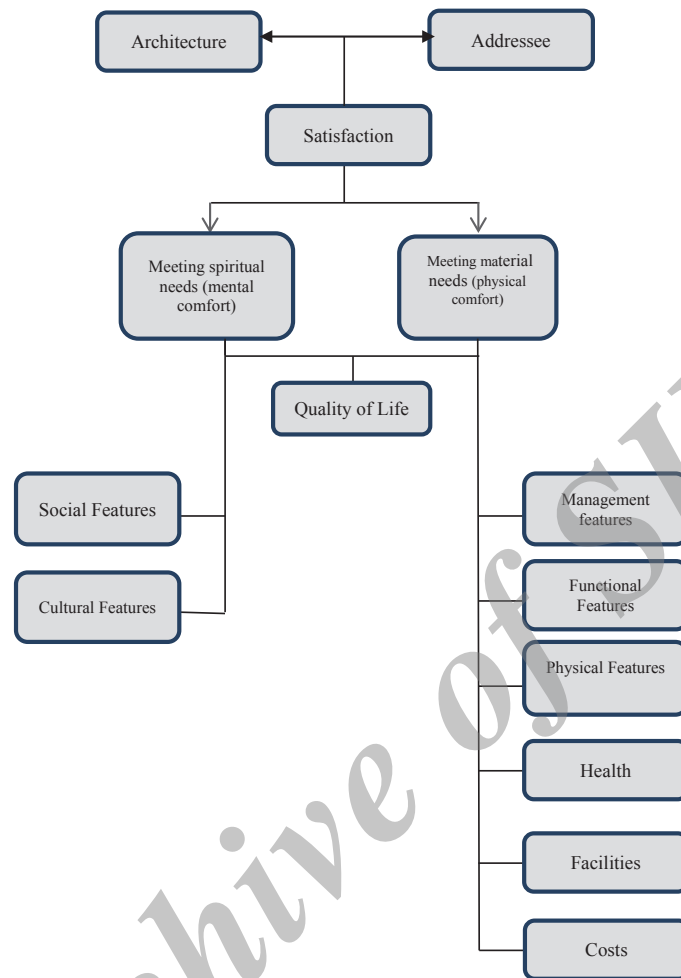


Fig. 1: Residential satisfaction measurement empirical model

### Explanation of Spiritual Needs in Satisfaction

While meeting the material needs of human as a shelter, residential architecture reflects his beliefs and values as well. Rappaport believes that house is primarily an institution and even at first the concept of house did not mean pure function but house has been a type of "biological need" that "house culture" has evolved to meet these needs. In general from anthropological perspective, house culture is a set of values and meanings that define the concept of house in a group, tribe and nation.

From the viewpoint of Gifford, homes are very different in different parts of the world and people prefer to live in the housing that meets their cultures according to their past. This is because the settlements are the crystallization of culture, the culture are complementary behavior patterns (Gifford,

1977). Due to the above, spiritual features can be mentioned to cultural and social relations between people's needs.

### Cases Study Kuy Nobonyad Vanak Towers (ASP)

Kuy Nobonyad Vanak Tower (Known as ASP Towers or ASP Buildings) is one of the oldest and largest residential complexes in District 6 of Tehran Municipality. The tower is high-rise building that was built with several other towers in early 1971 following the program titled "Modernization of the capital". Among other residential complexes as one of the first buildings that have been designed for upper classes with the highest construction standards.

This complex has 3 blocks of 23 stories which it is located in North side of Tehran International Tower and Hakim Highway;

Table 1: Defining Characteristics of Satisfaction in Residential Complexes

Satisfaction	Material needs		Management Features	Security/ Safety	Security in residential complexes can be verified from several perspectives: Security against invasions, disasters and accidents, etc. Psychological and cultural security. (in the area of intellectual properties)
	Material Needs		Maintenance		
Functional Features		In proportion to the residents' needs			The concept of functionalism in architecture is involved with a wide range of human characteristics on one hand and related to architect's attitude toward a set of related phenomena on the other hand (Motalebi, 2006)
		Designing the defined spaces			Readability of space is one of the most important factors in the design of residential complexes. Outdoor design should be such that guides people both in terms of physical and visual aspects. Being distinguished and controllable is considered as the main issues in the definition of space.
Physical Features		Beauty			It is one of important features in designing living spaces in response to the aesthetics of the human being
		Distinguishable from out of house			Being repetitive or in other words no distinction of building from out is one of challenging problems in high-rise architecture that in most cases it will cause discomfort and dissatisfaction of residents.
Health		Noise	Internal		Noise from neighbors
					Pollution
			External		Traffic
Facilities		Within Complex			Creating commercial spaces within the complex
					Easy Access to Facilities
					Considering spaces like landscape, gardens, sports fields, play area for children ...
					View and Perspective
					Light and Ventilation
Economic Features		Out of Complex			Good Access
	Costs			Cost of Maintenance	
				Current fees	
				The cost of sale, mortgage or rent	
	Ownership			One of the most important factors in achieving a sense of satisfaction in residents	

West side of Kordestan Highway; East side of Azadegan Boulevard; South side of Iranshenasi Street. Now most of its inhabitants have been old and they show reluctant to move from the complex.

### Tehran International Tower

Tehran International Tower is the largest and tallest residential tower in Iran which has been built recently. Use of high quality materials with international standards is the highlights features that can be mentioned. Its habitants are the upper level of society.

The tower is located in District 6 of Tehran Municipality on the north side of Hakim Highway, while it is limited to South Sheikh Bahai Highway on west side, overlooking Kordestan Highway from East with convenient access to various parts of Tehran city.

### Developed Questionnaire

Hypothesis: ignoring the needs of the mind, at the same time meeting the material needs of residential complex will be caused dissatisfaction of inhabitants.

Table 2: Defining Characteristics of Satisfaction in Residential Complexes

Satisfaction	Spiritual Needs	Considering the interest of people and their participation in the design	Considering subjective perception of people of ideal accommodation and including it in the design process	
		Cultural Features (Safarian, 2014)	Avoiding cultural interference and conflicts	Generally any social and cultural system lives in a specific habitat which undoubtedly influences the cultural system (Habib & Khastoo, 2014). Cultural conflicts of residents that is resulted from ignoring social status of people, also focusing on the financial power and so getting together from different cultures that causes problems like loss of social interaction, creating discontent ...
			Considering logical relationship between the environment and the current pattern of behavior	There should be always a reasonable relationship between the form (architecture) and function (behavior patterns) and what is important in this regard is compatibility between environment and behavior.
			Social, cultural and value homogeneity of residents	Harmony of residents increases social interaction between residents, creates interest in people, increases social activity and thus increases satisfaction of residents.
			Sense of attachment to the place and as a result, increase in settlement in the environment	Sense of place is defined as individual's perception of their environment and compliance with their cultural background. Creating a sense of place and people participation increases security and therefore satisfaction in the residential complexes.
	Social Features	Social Stability	Social sustainability in residential complexes can be understood as the resultant of satisfaction with the present situation in which the residents enjoy being neighborhood with other people and as a result, human interaction, cooperation and coordination grow between residents.	
		Neighbors Relations	Participation in the activities of next door neighbors and visiting neighbors frequently has a direct connection with residential satisfaction. (Amerigo & Aragonés, 1997)	

Usually how do you enter to the complex? On vehicle or on foot

Are there any public transport system around the complex?

If you use your car how is the traffic aspect for accessing to the site of complex?

How much of your basic needs have to be prepared to get outside of the complex?

If it is necessary how far do you walk to the place for providing your basic needs?

In the complex at all hour's day and night what is the amount of the security?

Has it been considered the constituencies for hiking and activities in the complex?

On average how much time do you allocate for hiking and other sports in day and night in the complex?

Has it been considered enough space for playing of children?

Do you have enough green space in the complex?

Would you mention the spaces inside your house?

How is the spatial variation of the inside of your home?

Is there any space as entrance in your home?

From the entrance of the House (if any) to what spaces you can find access?

Are the public zone (hall and dining room) and private areas (rooms) separated from each other?

Do you find available access to the rooms from the main entrance of the House?

Is the inside atmosphere of the rooms optimal and usable?

Are the room's connected?

How are the light of the rooms?

How is the connection of Hall and dining room? Directly or indirectly (through the intermediary space)

When you are sitting in the Hall and dining room is there a vision towards the rooms?

Is there a balcony in the House?

To what extent do you use it?

Is there any vision from other units?

Is there dedicated green space within the house?

Which space within the house do you like the most? Why?

Table 3: Satisfaction Indicators in Residential Complexes

Satisfaction Indicators		Kuy Nobonyad Vanak Tower	Tehran International Tower
Management Features	Security	A	A
	Maintenance	A	A
Functional Features	In proportion to the Residents Needs	A	A
	Design of Defined Spaces	A	A
Physical Features	Beauty	C	C
	Distinguished from out of House	C	C
	Nature Presence	A	B
Health	Less Noise from Neighbors	A	A
	Lack of Pollution	A	A
	Lack of Traffic	A	A
Facilities	Indoor Commercial Spaces	A	A
	Easy access to facilities	A	A
	Considering spaces like landscape, gardens, sports fields, children play area	A	A
	View and perspective	A	A
	Light and ventilation	A	A
	Appropriate public access	B	B
	Economic Features	Costs	B
	Ownership	A	A
Total		A(Good)	A(Good)

Satisfaction Indicators		Kuy Nobonyad Vanak Tower	Tehran International Tower
Cultural Features	Considering people's wishes and their participation in design	C	C
	Lack of cultural interference and conflicts	A	C
	Conformity of environments and the current pattern of behavior	A	B
	Social, values and cultural homogeneity of the residents	A	C
	Sense of attachment to the place and as a result, increase in settlement in the environment	A	C
Social Features	Social Stability	A	C
	Neighbors relations	B	C
Total		A(Good)	C(weak)

- Would you like your residential complex appearance? Why?
- Do you have the familiar feeling when you look at the facade of the complex?
- To what extent do the inhabitants have a beneficial role in activities related to the complex?
- To what extent are the opinions of inhabitants in complex & management used?
- To what extent have the familiarity with their neighbors?
- What is your level of satisfaction of our neighbors?
- How do you evaluate your complex in term of the noise and pollution levels?
- How many percent do you feel same level with your neighbors in terms of culture?
- How many percent do you feel same level with your neighbors in terms of sociology?
- How many percent do you feel same level with your neighbors in terms of economic?
- Are people willing to perform complex activities in common?
- What is the amount of space in the housing complex for joint activities of the inhabitants?
- Approximately what percentage of the residents are owner?
- How is the mortgage or rent complex compared to the region price?
- The charging and maintenance costs is to what extent?

**RESULT AND DISCUSSION**

Assessment of Satisfaction Indicators in Residential Complexes of Kuy Nobonyad and Tehran International Tower<sup>2</sup> is presented in Table3.

**CONCLUSION**

This study examines the two cases of residential towers in terms

of cultural issues and residents’ satisfaction. Two residential towers of ASP and Tehran International Towers were selected. These two towers have been constructed in different time periods and it was the main reason to choose and compare them with each other. ASP Towers are considered as one of the largest and oldest towers of residential complexes in Tehran (capital of Iran). However Tehran International Tower was built and operated in 2004 with modern features and technologies. Quality indicator is among the most important issues in design and construction of both towers.

Residents’ satisfaction indicators including management, functional, physical, economic, cultural, social, health and facilities features were evaluated in the two towers. According to the research, both towers have a positive indicator of safety of residents and proper maintenance of the complex during operation. Appropriate skylight for apartment spaces, creating special spaces in the units and being free of any other buildings are appropriate responses to functional characteristics and needs of the residents. (Fig.2)

However the two towers have less importance in physical features in terms of landscape beauty and less beauty indicators can be seen there. Their rigid sculpture and prefabricated concrete façade deprived them from variety of rhythm and harmony in the body and as a result, they have a uniform body. One of challenging issues aside high-rise buildings architecture is being repetitive without any distinction from out of building that in most cases their residents are uncomfortable and unsatisfied.

Presence of nature in both towers is considerable and designer tried to create a landscape proportional to the residents’ needs. However in Tehran Tower this green space is exclusively dedicated to outdoor spaces and the nature’s presence is less

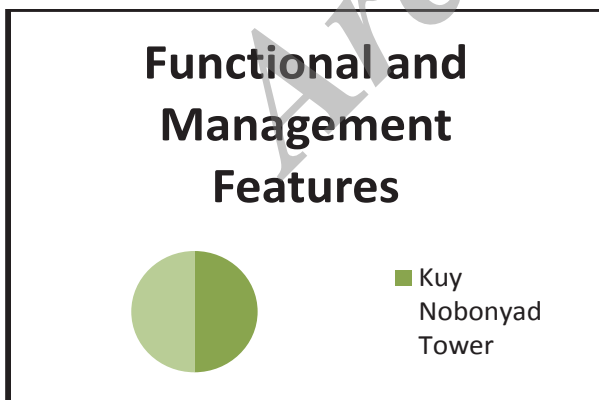


Fig. 2: Comparing the Functional & management features between Residential Complexes of Kuy Nobonyad and Tehran International Tower)

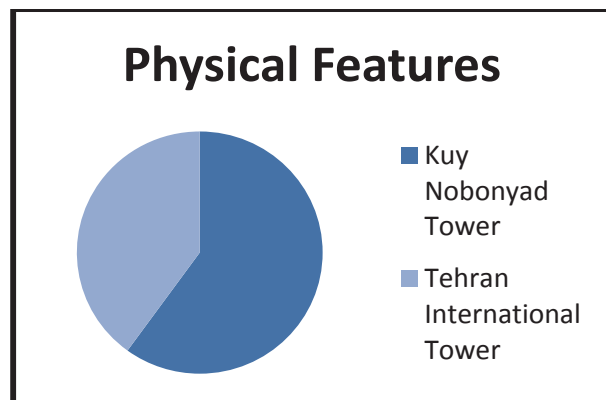


Fig. 3: Comparing the physical features Between Residential Complexes of Kuy Nobonyad and Tehran International Tower

within the building, the nature's presence in the interior spaces and public spaces of ASP tower has been more considered. (Fig.3) In terms of health and facilities, both towers are in compliance with suitable standards. The project site has been selected as the lack of pollution and traffic is one of the most effective factors in the residents' satisfaction. In the design of these two complexes, welfare facilities proportional to the needs of residents like landscape, gardens, sports fields, children's play areas and commercial spaces are considered and has good access for the residents. In terms of view and perspective, both complexes have appropriate view and perspective, orientation and skylight and ventilation. (Fig.4) Economic features including current maintenance costs are high in these two complexes and are more than middle-class income. Including those previously mentioned, these two complexes have been designed for high classes of society.

Ownership of the apartments is another effective factor in satisfaction of residents. (Fig.5) In addition to the above, other factors that can influence the satisfaction of residents are cultural and social features that are a response to the spiritual needs of the residents. Unfortunately, Tehran International Tower is not an appropriate response to the needs of residents and residents of Tehran International Tower have a weak desire to communicate and social interactions with other neighbors. Homogeneity and being from the same culture and social status is less among residents of Tehran Tower and there is no choice to select residents of the complex. In this complex, people live there of every class and status. Sense of attachment and the resulting increase in settlement in this complex is faded. As a result, participation and interaction between people is very low that leads to social instability. (Fig.6)

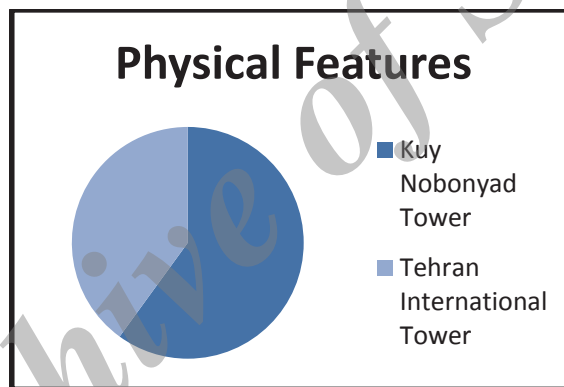


Fig. 4: Comparing the health & facilities features Between Residential Complexes of Kuy Nobonyad and Tehran International Tower

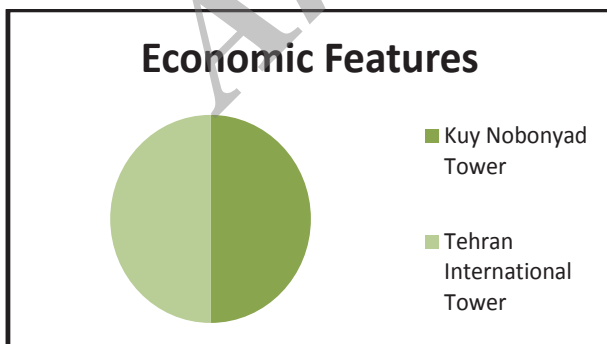


Fig. 5: Comparing the economic features Between Residential Complexes of Kuy Nobonyad and Tehran International Tower

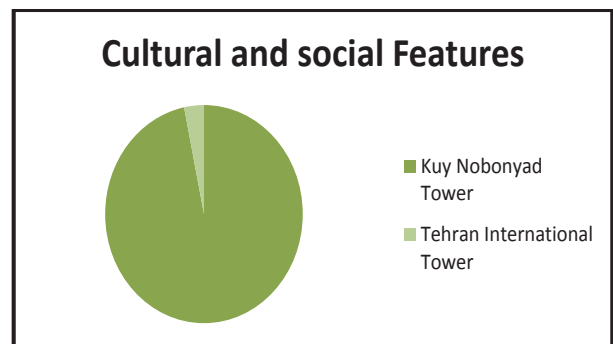


Fig. 6: Comparing the cultural & social features Between Residential Complexes of Kuy Nobonyad and Tehran International Tower



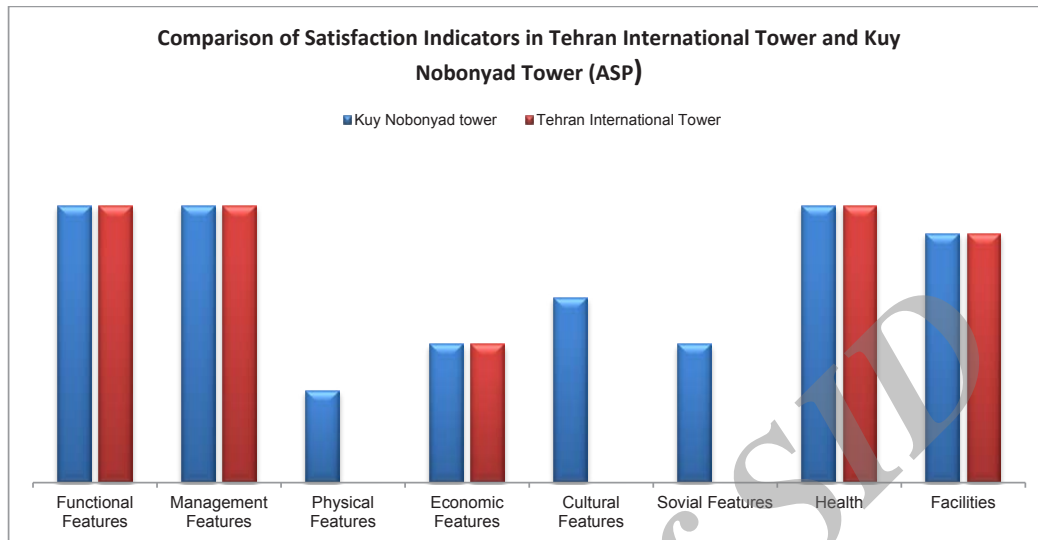


Fig. 7: Comparison of satisfaction indicators Between Residential Complexes of Kuy Nobonyad and Tehran International Tower

ASP Tower has more positive features from social and cultural perspectives. Its residents are interviewed before selection and they have similar cultures, values and behaviors and are in interaction with each other. As a result, they are more satisfied with their living place, there is more sense of attachment to the place and thus they show more stable settlement in the environment.(Fig.7)

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#### ENDNOTES

1. According to the research, both complexes are classified in the category of complexes with high quality indices and each meets its residents' needs from functional, management, health, and facilities aspects. Although Tehran International Tower is newer and benefits from state of the art technology than ASP Tower, satisfaction of residents of ASP Tower is more than residents of Tehran International Tower from cultural aspect. Although both towers are in compliance with appropriate design standards in high-rise buildings in Tehran, cultural and social factors are very important in resident satisfaction

and play an important role in social stability and a sense of attachment to the environment in the residents.

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A	Good	70-100%
B	Acceptable	30-70%
C	Weak	0-30%

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