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STUDYING THE FACTORS AFFECTING AN DESIGNING SUSTAINABLE OFFICE SPACES

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ABSTRACT

As effective elements in today cities, shopping centers play a major role in the economy and dynamic of cities. Because of development of the field and the dimensions of activity and space variety and efficiency in these centers with the purpose to attract maximum satisfaction of addressee and also improve the space quality, the designing has gained significant importance in this space and changed into a special branch in architecture design in today world. Considering this case is generalized to detailed point in the studies before construction and the space components in the internal and external body. After locating and studying the position to establish such a space in the city, some parameters are established in the design that if each of these elements are studied and used with details. Result in creating desirable and sustainable space in the mind. One of the most important parameters in locating and determining the location to establish a shopping center is the easiness in availability of all people (walking and driving) with less waste of time and locating the entrance and exit gate in low traffic places and finally creating comfortable parking to the related people.

Keywords: Official, business and design spaces.

INTRODUCTION

Studying the background of the revolutions of urban spaces indicates that one of challenges faced with after releasing modernist views in urban field is to create the factors effecting one the presence of people in space and one of the consequences of this strategy is to form multi-purpose urban spaces such as official-commercial places

that it may be because of the law of differentiating city functions into four parts of work, recreation, residence and availability and consequently limiting the activity in these fields.

Therefore, the contemporary challenge is the lock of presence of citizens in the space and civil life in these spaces. Based on this, the present paper is aimed to extract the factors affecting on raising the presence in multi-functional urban spaces during free times through which these spaces can be developed as a place to spend free times and creating public field.

METHODOLOGY

This research is a review that is performed through studying and observing famous and different samples throughout the world. At first step, the characteristic of each of them is studied and in the next step these characteristics are compared to each other to determine the common characteristics of official-commercial spaces.

The research finding shows that we can expect that the space is accountable for the need of citizens in different times and insures the continuity of their presence in the space. The result of this paper shows that presence in free times as one of the most important factors of making humanistic dimension of each urban space strong should be considered in preparing all of urban designs to raise their success level in the performance.

In doing so by applying the findings of present paper to prepare urban designs as a control tools, we can assay the level of attention of each design to free time presence and solve the probable errors.

FINDINGS AND DISCUSSIONS

Today the cities become complex with developing and is affected by different natural and humanistic factors. Therefore the city becomes more dynamic than the past that is continuously evolved by different variables. Sometimes this changes the city into different areas each of which has special cultural, social and economic characteristics. Specially the cities with more dynamic economy that are places to find job fortunes experience internal revolution more than other cities because of migration of the job seeking force.

Off course the economic raise results from different factors. But the main point is to increase gross income and employment in the cities. One the parts that create main cultural, social and economic changes in the cities is business complexes.

Business complexes and market as the formidable arm of economy and a symbol of financial power , play an important role in the cities. These complexes are the places to

create wealth and produce financial value in the society and at the same time, they provide a space to people presence and routine life. In the past when the cities were small, there was significant architectural and physical relation between these centers as the symbol of economic power and other power centers, such as significant relation that is in Isfahan,s Naghsh-E-Jahan square between Ali Ghapoo as physical and architectural symbol of government and Emam mosque as the symbol of divine power and religion, and finally Gheysarieh gate in Isfahan market as the economic symbol of capital. They exhibit the uniformity of the city. In contemporary world, the market and square have changed into modern urban centers and a place to buy and economic dealings and also spending free times. Defining and designing business function that they are expected. If successful, the business complexes help to attract the people and create passage ways. Also selling and shopping in business places supply various financial sources to develop urban projects. In many big urban projects such as the way leading to canton tower in china Guangoi city or urban center of potsdamerplatz in Berline, business complex beside an index urban symbol and various cultural canter such as cinema, library, museum, opera hall, green space, residential houses, hotel and offices is considered as one of the centers to attract the related people and supply the capital. In some populated urban business areas, business complex by itself is a final aim that is naturally observed. In the urban thriving part, many business complexes and shopping spaces provide attractive spaces. In the second case, the cultural centers and urban symbols aren't located beside project and the success of project of business complex is the final goal. The rest of projects are between these two cases.

The initial shopping centers that are designed in the machine age hadn't, human scale and the conditions of car traffic was considered in their design, such as market square, lake forest in Alinuis built in 1916 and country club plaza in canzas and Missouri built in 1924.

In half of 20th century, because of suburb settlement and automobile culture in America, a new style of big shopping centers in country sides was created. The first such a shopping center in America was Highland park village that was started in Dallas texas in 1931.

In designing shopping centers, not only physical design should be considered but also all parts such as passages, entrances, parking, pedestrian, path systems, light, furniture and

public spaces should be control. Creating suitable space in the shopping is determining.

1 :Site positioning:

-placing shopping center in suitable place

-Attraction of the center to the referring people

2: Designing site:

-Allocating retreat to the parking in the street area.

-Creating pedestrian in the retreat

-Creating a path from street corner to shopping center.

-Building suitable parking.

-Creating landscape to surrounding streets.

-Connecting public sidewalks to sub ones.

-Creating social public spaces in the site. These spaces should be designed to give a collective sense to the buyer so in these spaces the visual elements common in the world should be used.

4:internal design and selecting furniture :

Bench, table, Chair and all urban furniture should be selected to reflect the best theme of shopping center. Color, design, movement are the key and visual interest to create the successful shopping.

4:light:

In addition to recreations and the symptoms that depend on the light, the brightness of a shopping center should be severe and at the same time hidden and even variable . A continuous light is boring. The suitable light results in the buyer spending more time in shopping center.

5:Entertainment-reception:

In a complex, the trust and honesty are among the most effective factors to attract the people. A shopping space should be designed so that the mothers are able to take their children with themselves and allocate a day to the shopping much variety in the shopping causes encouraging children. Therefore, entertainment and reception for the children is the most important principle. The devices such as sculptures, pond, watershed,… Make the children amused for a long period. Performing encouraging affairs also can be effective: fun dramas, doing something to make them laugh, musicians, carnaval, etc. otherwise the environment will be boring. Mothers require to be sure of the children security and health. A music group and cultural institute can be useful.

Therefore cafeteria, restaurant and lobby are considered necessary to rest of costumers and also the space of game to children and places to drink water and eat food and theatre scenes and cabinets to keep costumers, goods are required.

6:Color

Color variety is one of the principles to successful designing of shopping center. In

the shopping center designed correctly, the function of landscape is more important than building itself. The color of spaces is provided to the concepts. Selecting a picture to shopping center isn't accidental but it's an attempt to present the products and encourage people to buy.

7:Advertisings

Today the importance of advertisings to create an effective identification of a good or a place and extra affective in business activity is known to everybody. Among these the advertisement that can attract the attention of more people is more successful.

Official-business buildings:

1: sears tower, a pattern to folding architecture

One of other interesting building in folding architecture is to destroy sears tower in Chicago city by Gergline. Sears tower with the height of 110 floors is the highest building built with modern style. This building is built in 1970. It's architecture engineers was Bruce Graham and Fazlur Khan (pakistanian) in 1974.

This building is a symbol of modern style and thought. External façade of the tower is completely covered by bronze-colored glass and black aluminum. It can be considered as the consisted of nine cubes with certain heights. Two last cubes are 443 min height.

Fazlur Khan considered 25 metal columns per cube. Hence, sears tower is consisted of nine cube each of which is formed of 25 layers. But in one of his works, peter Aizenman destroyed this modernity style and changed the vertical system into the horizontal system. After destroying the tower and falling on the ground, lin placed it's long geometrical layers between river, street and neighbor buildings like pasty tapes according to site conditions. Although these layers maintained each of their traits, they are placed as horizontal among the factors available in the site.

2. Twin towers of petronas

They are among the highest skyscrapers of the world that are placed in kualalampur city in Malaysia country. With considering the antenna over the towers, their height reaches to 452 m. each tower has 88 floors and78 elevators are working in these two buildings. From below these two towers are connected by suria shopping center. Also a bridge connects floors A1 and A2 of these two towers. From the ground level, the height of this bridge is 175 m and it's length is 56 m. these towers, construction was started in 1995 and it was finished during a short period in 1998. Malaysia government commanded to build these towers as the symbol of economic progress of this country. Today petronas twin towers have become one of main symbols of kualalampur and Malaysia. Its architecture is Cezar poli.

3: World trade tower:

World trade center (WTC) was at first called freedom tower. The main building of new complex of WTC is located in south Manhatan in Newyork (USA). This tower located in west north of WTC is surrounded by the streets of Vessi, west, Washington and falton. Construction of this skyscraper has begun since 2006 and was started in 3 November, 2014. The construction cost of this 104 floor skyscraper is estimated 3/8 milliard dollar and it's construction lasted for 8 years. This building with height of 541/32 m and105floor is the highest skyscraper in USA. The architect designer of this tower selected it's height as 1770 foot that is the number of the year when USA become independent.

4 john Hancock center:

John Hancock center is one of the highest buildings of the world and world and among the symbols of Chicago city. This building has 100 floors, with height of 457 meters. It's among the highest buildings of USA. The architecture of this building is Bruce Griam from skeedmure company. Nader Ardalan,

the father of Davar Ardalam has participated in designing this tower.

5 Hong kong Bank:

Shanghai, Hong kong bank (HSBC) is a bank designed to global economy by famous architecture, Norman Faster. It has 4 sub ground floor with high of 180 m from the ground level. Generally it has 47 floors with rectangular plan (7.54 m). it was built for 6 years (1985-1979) with cost of 670 m dollars. The old building of shanghai and Hong kong bank was replaced by this building. It's architect applied compound platforms and created uniform spaces with open plans. Their floor is built of light concrete with suspend bridges style that are connected by concrete constructions to main platforms. All communication networks and computer terminals are prepared below these floors. It's among the buildings that hasn't used elevators as main service.

6Aeron complex:

Areon complex is designed by international architecture, Tom Right and will soon change into one of the most important multipurpose shopping centers in Iran. With the presence of international brands, it's an attractive alternative to Dubai shopping centers. It's located in 20 km Tehran-Karaj highway. This area contains small and industrial towns based on statistical studies , two million people daily visit this complex by passing in Tehran-Karaj highway.

7Atlas trade center:

This trade center with beautiful landscapes has allocated 71% of it's area to green space and local park and recreational facilities. It has easy availability to city main centers. The trade, service and welfare centers with creative architecture, elegant design and BMS make this center an excellent place with added value. The engineers predict that

this center has high growth potential that can have good function as an important urban space. At the same time, it's regional function is unavoidable. This subject became clear with attending 10000 people from east Azarbaijan and neighbor provinces and foreign passengers

8 Lafayette trade complex:

Jean Nouvel, the famous french architecture, was born in french on 1945. He founded his architecture office in 1976. He has already received many prizes, the most important of which is pritze in 2008 and Aghakhan in 2005. The special ability of Jean Nouvel is to create dynamic spaces. Also his innovation to apply construction techniques and using materials is very excellent. Lafayette trade complex is one of his most important works in 90s decade that it's construction lasted for 5 years and after starting it achieved much fame. This building is located in one of the streets of Berline that is severely damaged in world war. After war, many of it's buildings are reconstructed.

9Lowenpark Melk Project:

Lowenpark Melk project is located in a wide area near city center. The main square of the city is very near to it and also transportation ways such as train stations are available.

It's façade is very bright and shiny. The presence of curved lights has attracted the presence of costumers. It's head contain uniform lights that are directly connected to glass façade. There are tapes with golden color and Melk logo .

10 Springboard trade center:

The business center of springboard reflects the new strategy compared to work spaces with considering the increasing demand of England people to small and flexible work media, this place started this summer includes official spaces and teaching facilities in a space with area of 13500 sqft that is located in an industrial park. Designing this building is very innovative and is sustainable in service and structure.

This building has high standard. it's other equipment include automatic sensor to control rain water, air conditioner system, temperature control System and system of rain water filtration.

Characteristisc of a shopping center:

1: Multiple entrance and exit

2: private parking

3:equipped with security, heating and cooling systems.

4: Applying the symptoms to better introduce the space

5: suitable architecture and internal design

6: creating an attractive space with variety

Main elements of multipurpose shopping centers:

1: Commercial retailer units

2: Communicational spaces

3: The place of the services such as sitting hall, gam and fun of children, coffee shop, wating rooms, etc. They are very important to attract people and consequently they cause the profit to this center.

The shopping centers in modern periods can be mentioned as second wave of trade media, resulting from the industrial revolution and emerging modern architecture that is rooted in the traditional markets and centers but in the third millennium, the shopping centers have faced to a new wave that many related experts have predicted destroying these economic and social spaces in future years.

This wave is nothing but entering technology to this field of social life, that has it's own disadvantages.

Generally the success of trade centers in the world is cleared 5 to 7 years since their starting.

Various factors are involved in the success of commercial centers. The first factor is location. Many experts consider correct selecting of project location as the half of the success of trade centers. But there are trade centers built in the best locations of city but they haven't been successful. The motivation of project owners and managers with applying experiences and day knowledge are two wings of project success. Naturally, the primary studies should be performed correctly and the project "has a correct architecture. I don't mean attractive architecture that is necessary but it's not enough. Having advertising and brand program help to project success. Finally, selecting brands related to project objectives and applying modern exploitation programs insure it's success. When starting, people presence determines project success.

CONCLUSION:

The spaces have these categories:

A: The spaces with constant combination. Their combination is identified by physical data. Then a trade center can be considered as constant space.

B: The spaces with semi constant combination:

In explaining this category of spaces, he focuses on some geographic architectural characteristics. They impart a semi constant combination to the space.

C: The spaces with variable combination: The most important characteristic of these spaces is that they are provided by behavioral patterns of organization. Their design isn't constant, because it's changed by behavior change. (Mortazavi, 1988:54)

Based on other classification, the trade centers are considered as applied spaces. The urban spaces can be divided into 4 parts that are dynamically related: 1: residential spaces, 2: work spaces 3: free time spaces, 4: transportation spaces

Urban work spaces are divided into three categories :

1: Dealing activity centers

2: Production activity centers

3: Service activity centers

The trade centers are in the first category, dealing spaces. They are located in geographical field of central and internal city. The trade centers of this category are the spaces such as large shops and compound trade centers from retailers to whole sellers. They are located based on the easy and rapid availability and in advanced countries they are located in country sides. (Fokouhi, 2004: 265-266).

REFERENCES

1: Pakzad, Ali (2011); website of khabaronline.ir

2: Toulaie, Navin (1993): urban spaces and social and cultural relations; M.A Thesis, Tehran university

3: Javan forouzandeh, Ali; Trade centers, architecture magazine, ninth year, No.30 , pp . 37-40, Tehran: cultural researches office

4: Dolat, somaieh; Forming Passages in Tehran, magazine, ninth year, No.30, pp.45-52, Tehran: cultural researches office

5: Sabernezhad, zhaleb: new soul in historical buildings by creating new shopping centers, architecture magazine, ninth year, No.30, pp.64-68, Tehran: cultural researchers office.

6: Sadeghi, Fereshteh (2006): studying and creating urban spaces in the complex of Tehran marke, M.Sc thesis ,Tehran university.

7: Kalbadionezkad, Mehrangiz, Hafezi sari passage, architecture and culture magazine. Nineth year, No.30, pp. 22-25, Tehranak, the cultural research office urban work spaces are divided into three categories: