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Revising Iranian Experience in Establishing Pedestrian Zones; Surveying Strengths and Weaknesses of Pedestrian Zones in Tehran

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ABSTRACT: Though the experience of pedestrian establishing in the world backs to 70 years ago, this is a new approach in Iran. In recent years, establishing pedestrian zone is getting more popular due to paradigm shift in urban governance from motorized to human based development. Pedestrian zones like 17 Shahrivar (Shohada), 15 khordad, Sepah-Salar, Soore-Esrafil, Babe-Homayoon, Naser Khosro, Marvi, Saboonian, Ehsani, Shah-Abdol- Azim, and Baradarane- Mozaffar are the results of such paradagim shift. Present paper tries to evaluate these pedestrian zones in order to determine the strengths and weeknesses of each one. Direct observations and interviews were used as research tools. The results of evaluation and comparative comparison show that from 11 pedestrian zones in Tehran, Sepahsalar, 15 khordad and Shah-Abol-Azim have the best conditions while Baradarane Mozafar and 17 Shahrivar have inappropriate situation. Although pedestrian zones in Tehran are almost in appropriate level from pedestrian facilities point of view like pavement and lightening; some factors such as lack of mixed land use, motorcycles and cars penetrating the pedestrian zones, lack of public toilets and disabled facilities, ignorance of public participation have negative effects on citizen satisfaction.

Keywords: Pedestrian Zone, Evaluation, Comparative Comparison, Tehran

INTRODUCTION

Pedestrian zones are part of urban spaces which are limited to pedestrian movements and have been forbidden for motorized transportation because of having unique characteristics (Kashanijoo, 2010). Although changing the streets to pedestrian zones dates back to 70 years ago in the world, this is a recent approach in Iran. Establishing pedestrian zones in Tehran has been noticed in recent years and several pedestrian zones in central part of the city have been established through the cooperation of different organizations like Tehran Organisation of Beautification, Traffic and Transportation, and Architecture and Urban Planning.

While the approach on shifting urban governance from motorized to human-based planning is positive, but there are some fundamental questions:

- Do converting streets to pedestrian zones improve citizen satisfaction?

- Have these pedestrian zones been chosen appropriately regarding to walkability factors?

11 abovementioned pedestrian zones in Tehran have been evaluated and compared in this paper.

MATHERIALS AND METHODS

This is an applied, descriptive and analytical research in which comparative comparison is used for data gathering. Research tools are direct observations and interviews.

This research is composed of two main parts:

- Determining and weighting the indicators and criteria for evaluating pedestrian zones: indicators have been determined based on literature review. An AHP technique has been used for weighting criteria based on the ideas of 6 experts in the field.

- Evaluation and comparative comparison of 11 pedestrian zones in Tehran: this part has been conducted by using direct observation, interview and analyzing of status quo. Every indicator is scored from 1 to 5 (1 = very inappropriate, 2 = inappropriate, 3 = moderate level, 4 = appropriate, 5 = very appropriate). Score of each criterion comes from averaging related indicator scores. Final score of each criterion comes from multiplying weight of each of them to its average score. This process has been done for 11 case studies.

Introducing criteria for evaluating pedestrian zones

Lots of Studies have introduced the criteria of choosing and evaluating the pedestrian zones. Kashanijoo described some criteria such as happy gathering of pedestrians, human scales, various and active retailers, traffic clamming, 24/7 activities, narrow yards, protecting against the weather changes, wide pedestrian ways, lively building façade, equilibrant

turning radius and passing spaces, small block size, landscapes, suitable commercial land use. In addition, he has mentioned other cases as effective criteria in choosing pedestrians zone such as access to public transportation, appropriate access to the other parts of the city, connectivity, locating pedestrians relevant to the attracting city land use, mixed land use, facilities for pedestrians circulation, road access of emergency and service cars, and suitable design of details.

The principals of the pedestrians planning are observed as connectivity of networks, legibility and comfort of the path (noisiness, pedestrian width, shades), path consistency (continuity, efficiency, sun barrier), amenity (interesting, cleanness and social attraction), security, safety, multi-functionality (traffic, landscape, …) and availability (destination on foot) (Community Walkability) .

Riyazi and Ebadi (2011) have noted the diversity of land use, plot size, density, existance of historical places, access to the public transportation and public spaces, compatibility with the status que, connectivity, historical identification, street- oriented building, and design flexibility as the effective criteria for pedestrian zones.

Moeini (2006) has specified 9 factors for walkability of the pedestrian zones: safety, attractiveness, amenity, mode choice, accessibility and mobility, education and public health, connectivity, integration between land use, transportation and pedestrian, accessibility to the transit station and pedestrian behaviour according to the cultural and social criteria.

Frank (2006)believes that affecting factors on walkability consist of continuity of the streets, mixed land use, residential density (number of residential unit per area), alternation and diversity of the building, entrances along the street, transparency that includes numbers of glass – made windows and doors, direction and adjacent of buildings which monitor the street, enough space in proximity of the building, place making, designing the street that serves people not just cars, and retailer space rate in the first floor.

Forsyth and Southworth (2008) believe that a pedestrian axis must encourage physical activity, shorten the distance, being appropriate for disabled people, safe and secure, and has walking facilities such as urban furniture, trees, and international standards.

They also mentioned that the district with café and interesting shops, with mixed kinds of the dwelling such as apartment and houses, regularity pattern of the street, pedestrian infrastructures such as interesting tree-lined and designed street, nicely maintained open spaces with clean pedestrian and without obstacle, access to the public transportation and taxi station. The main infrastructural factors are access to the mass rapid transportation (MRT), quality of pedestrian ways, limiting traffic movement (tree-lined street, on-street parking, bicycle way), aesthetic elements, short distance of local destination, air quality, providing shade in different seasons, urban furniture, traffic speed and congestion and the wind situation (Ramirez, 2006).

Mohamadniya and Farid (2010) introduced six factors in choosing the preferable path to the pedestrian conversion in Mashad City:

1. Socio- cultural factors: tendency to walking, memorability of the axis, existing of the social function, literacy of the population, social safety, traders' satisfaction.

2. Economic factors: price of the adjacent lands per square meter of pedestrian ratio, level of user's income.

3. Mobility-Accessibility factors: compatibility of path function with pedestrian character, number of the pedestrians per pedestrian area ratio, managing parking space, emergency services to the pedestrian zone, connection to the Holy Shrine and pilgrim residential areas, objective movement of the pedestrians, number of the pedestrians per car ratio, access to the public transportation, existing of the parallel streets and level of street congestion, connectivity of the pedestrian zone.

4. Environmental factors: connection with the natural elements, climate accommodation, landscape, level of the air and noise pollution.

5. Functional factors: conformity with the status quo, official and commercial activity, connection with the other functional space, existence of compatible function with the pedestrian goal.

6. Physical factors: proportion of the width to the height, existence of the specified origin and destination elements, visual assessment of the facades, age variety of the building.

Mehdizadeh (2000) specified four studies on designing and planning pedestrian zones:

1. Physical study: land use pattern, transportation pattern, urban infrastructure pattern, quantitative and qualitative statistics of pedestrian movement, safety condition, landscape and view, urban furniture, public convenience (toilet), disable movement condition etc.

2. Engineering studies of roads and networks: executive details, infrastructure networks, geometrical and executive problems, surface water, margin green space and ….

3. Socio-cultural studies: occupation and urban trip, tendency to walking, walking indicator, law and regulation of pedestrians zones, pedestrian zones management.

4. Environmental studies: ecological effects on the pedestrians, environmental pollution, green space….

Kumar (2009) notified factors such as land use, density, adjacent, connectivity, designing, landscape and safety as the criteria for evaluating the pedestrians. Chart 1 depicts an assessment of walkability.

Pakzad (2006) describes these cases in the constructing the pedestrian zones:

- Off-street Parking space supply.
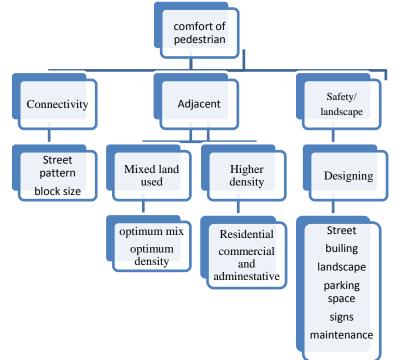- Access to the public transportation.
- Avoiding of congestion in the other part of central business zone due to the pedestrians zone plan.
- Pedestrians could walk along the pedestrian way without the vehicles interruptions.
- Organizing taxi stations and bus stops.

Criteria and indicators derived from the literature review are represented in table1:

Chart 1: main criteria for evaluating the pedestrian zones

Source: Kumar (2009)

Table 1. Criteria and indicators which affect on walkability

Dimensions	Criteria	Source	Indicators
Physical and spatial	Retails and recreational land use	Moeini 2011, Kashanijoo 2010, Abdi & Riazi 2011, Frank 2006, Forsyth & Southworth 2008, Mahdizade 2000	Variety of the shops
			Cafe, restaurant and other recreational land use
			Vendors
	Mixed land use	Moeini 2011, Kashanijoo 2010, Abdi & Riazi 2011, Frank 2006, Forsyth & Southworth 2008, Kumar 2009	Residential and commercial land use
			Attractive urban land use
			Non-existence of the motorized-oriented land use
	Historical elements	Kashanijoo 2010, Abdi & Riazi 2011	Adjacent to historical elements
Access and traffic	Planning the pedestrian zones integrated with the other transit modes	Moeini 2011, Kashanijoo 2010, Abdi & Riazi 2011, Gharib 2004, Forsyth & Southworth 2008	Access to the public transportation
			Taxi station
			Parking management
			Using alternative mode such as bicycle
	Road access for service and emergency vehicle	Kashanijoo 2010	Emergence and service vehicle access
			Loading and unloading method
	Connectivity	Moeini 2011, Kashanijoo 2010, Gharib 2004, community walk ability, Frank 2006, Kumar 2009	Path connectivity
			Legibility
	Avoiding congestion in the other part of the region	Moeini 2011, Pakzad 2005	Pedestrian zones should not make congestion in other part of the region
Socio-economical	Containing numerous pedestrians	Kashanijoo 2010, Mohamadnya 2011	Numerous pedestrians
	Shopkeeper and resident participation	Kashanijoo 2010, Mohamadnya 2011	Participation in the implementing or at least resistance of the residents
	Security	Moeini 2011, Kashanijoo 2010, Mohamadnya 2011, community walk ability, Kumar 2009	Social Security
Urban designing	Walking facilities	Ramirez 2006, , Gharib 2004, Forsyth & Southworth 2008, Mahdizade 2000	Appropriate pavement
			Nonexistence of uneven surface
			Well adapted design for disable
			Siting place
			Lighting
			Public convenience
			Litter bin
			Managing Surface water
	Human scale	Kashanijoo 2010, Mohamadnya 2011	Two to five floor buildings
			Proportion of the width to the height
	Protecting against the weather changes	Kashanijoo 2010, Mahdizade 2000	Margin green space
			Sunshade
	Façade visual assessment	Mahdizade 2000	Variety and rhythm of the facade
			Stop and breathing space

Source: authors

RESULTS AND DISCUSSIONS

This paper is prepared for evaluation and comparative comparison of 11 pedestrian zones in Tehran. As described, the score of each indicator is based on direct observation and interview with pedestrians and job keepers.

Table 2 shows the score of each indicator. Table 3 shows the average score of each indicator. Table 4 shows the final score of each criteria.

Table 2. Score of each indicator

Dimentions	Criteria	Indicators	Baradaran e Mozaffar	Babe Homayoon	Soore Esrafile	Naser Khosro	Marvi	15 Khordad	17 Shahrivar	Sepah-Salar	Saboonian	Ehsani	Shah-Abdol-Azim	Total
Physical and spatial	Retails and recreational land use	Variety of the shops	1	2	2	3	5	5	2	5	5	5	5	40
		Cafe, restaurant and other recreational land use	1	1	2	2	5	4	3	4	2	2	5	31
		Vendors	1	1	1	2	1	5	1	3	4	5	3	27
	Mixed land use	Residential and commercial land use	4	1	1	1	1	1	3	2	1	5	1	21
		Attractive urban land use	1	2	2	4	4	5	1	4	4	4	5	36
		Nonexistence of the motorized-oriented land use	1	4	3	3	5	5	1	5	5	5	5	42
	Historical elements	Adjacent to historical elements	1	3	3	4	3	5	1	3	1	1	5	30
Access and traffic	Planning the pedestrians integrated with the other transit modes	Access to the public transportation	4	5	4	4	4	5	5	5	3	1	2	42
		Taxi station	2	5	2	2	1	2	2	2	4	2	2	26
		Parking management	2	1	1	1	1	1	1	2	2	3	2	17
		Using alternative mode such as bicycle	1	4	3	4	1	4	4	1	1	1	1	25
	Road access for service and emergency vehicle	Emergence and service vehicle access	4	5	5	5	4	5	5	5	5	5	5	53
		Loading and unloading method	4	4	4	4	3	3	4	4	4	4	5	43
	Connectivity	Path connectivity	2	4	4	4	5	4	3	3	3	3	4	39
		Legibility	2	4	3	3	5	4	3	5	4	4	5	42
	Avoiding congestion in the other part of the region	Pedestrian zones should not make congestion in the other part of the region	3	4	4	3	5	4	1	4	4	4	5	41
Socio-economical	Containing numerous pedestrians	Numerous pedestrians	1	2	1	3	4	5	1	4	4	4	4	33
	Shopkeeper and resident participation	Participation in the implementing or at least resistance of the residents	1	2	2	3	3	3	1	5	3	3	3	29
	Security	Street Security	1	3	3	3	3	3	1	5	3	2	4	31
Urban designing	Walking facilities	Appropriate pavement	2	5	5	5	5	5	5	5	5	3	5	50
		Nonexistence of uneven surface	3	5	5	5	5	5	5	5	5	5	5	53
		Well adapted design for disable	1	2	2	2	2	2	3	3	2	2	4	25
		Siting place	4	5	5	5	1	4	5	5	3	1	5	43
		Lighting	4	5	5	5	4	5	4	5	4	2	4	47
		Public convenience	1	1	1	1	1	1	1	1	2	1	4	15
		Litter bin	2	5	3	3	1	2	5	5	2	1	5	34
		Managing Surface water	1	5	5	4	2	4	4	4	4	3	5	41
	Human scale	Two to five floor buildings	2	2	2	4	5	4	5	4	5	5	5	43
		Proportion of the width to the height	2	2	2	3	5	3	1	4	4	4	3	33
	Protecting against the weather changes	Margin green space	3	4	3	4	1	4	3	4	3	3	4	36
		Sunshade	2	3	2	2	5	4	2	3	2	2	3	30
	Façade visual assessment	Variety and rhythm of the facade	2	2	2	3	5	5	2	4	4	4	4	37
		Stop and breathing space	3	3	3	4	5	5	1	5	4	3	5	41
		Total	69	106	95	108	112	127	89	128	112	102	132	1180

The score of each criteria comes from averaging the related indicators.

Table 3. Average score of each indicator.

Dimensions	Criteria	Weight	Baradarane Mozaffar	Babe Homayoon	Soore Esrafile	Naser Khosro	Marvi	15 Khordad	17 Shahrivar	Sepah-Salar	Saboonian	Ehsani	Shah-Abdol-Azim	Total
Physical and spatial	Retails and recreational land use	**0.08**	1.00	1.33	1.67	2.33	3.67	4.67	2.00	4.00	3.67	4.00	4.33	**32.67**
	Mixed land use	**0.08**	2.00	2.33	2.00	2.67	3.33	3.67	1.67	3.67	3.33	4.67	3.67	**33.00**
	Historical elements	**0.04**	1.00	3.00	3.00	4.00	3.00	5.00	1.00	3.00	1.00	1.00	5.00	**30.00**
Access and traffic	Planning the pedestrians integrated with the other transit modes	**0.1353**	2.25	3.75	2.50	2.75	1.75	3.00	3.00	2.50	2.50	1.75	1.75	**27.50**
	Road access for service and emergency vehicle	**0.0429**	4.00	4.50	4.50	4.50	3.50	4.00	4.50	4.50	4.50	4.50	5.00	**48.00**
	Connectivity	**0.0957**	2.00	4.00	3.50	3.50	5.00	4.00	3.00	4.00	3.50	3.50	4.50	**40.50**
	Avoiding congestion in the other part of the region	**0.0561**	3.00	4.00	4.00	3.00	5.00	4.00	1.00	4.00	4.00	4.00	5.00	**41.00**
Socio-economical	Containing numerous pedestrians	**0.0864**	1.00	2.00	1.00	3.00	4.00	5.00	1.00	4.00	4.00	4.00	4.00	**33.00**
	Shopkeeper and resident participation	**0.0864**	1.00	2.00	2.00	3.00	3.00	3.00	1.00	5.00	3.00	3.00	3.00	**29.00**
	Security	**0.1472**	1.00	3.00	3.00	3.00	3.00	3.00	1.00	5.00	3.00	2.00	4.00	**.0013**
Urban designing	Walking facilities	**0.0705**	2.25	4.13	3.88	3.75	2.63	3.50	4.00	4.13	3.38	2.25	4.63	**38.50**
	Human scale	**0.027**	2.00	2.00	2.00	3.50	5.00	3.50	3.00	4.00	4.50	4.50	4.00	**38.00**
	Protecting against the weather changes	**0.021**	2.50	3.50	2.50	3.00	3.00	4.00	2.50	3.50	2.50	2.50	3.50	**33.00**
	Façade visual assessment	**0.0315**	2.50	2.50	2.50	3.50	5.00	5.00	1.50	4.50	4.00	3.50	4.50	**39.00**
	Total	**1**	**27.50**	**42.04**	**38.04**	**45.50**	**52.88**	**56.33**	**30.17**	**55.79**	**47.88**	**45.17**	**56.88**	**498.17**

Final score of each criteria comes from multiplying weight of each criteria to its average score.
Source: authors

Table 4 . The final score of each criteria

Dimensions	Criteria	Weight	Baradarane Mozaffar	Babe Homayoon	Soore Esrafile	Naser Khosro	Marvi	15 Khordad	17 Shahrivar	Sepah-Salar	Saboonian	Ehsani	Shah-Abdol-Azim	Total
Physical and spatial	Retails and recreational land use	0.08	0.11	0.13	0.19	0.29	0.37	0.16	0.32	0.29	0.32	0.35	2.61	**0.08**
	Mixed land use	0.16	0.19	0.16	0.21	0.27	0.29	0.13	0.29	0.27	0.37	0.29	2.64	**0.16**
	Historical elements	0.04	0.12	0.12	0.16	0.12	0.20	0.04	0.12	0.04	0.04	0.20	1.20	**0.04**
Access and traffic	Planning the pedestrians integrated with the other transit modes	0.30	0.51	0.34	0.37	0.24	0.41	0.41	0.34	0.34	0.24	0.24	3.72	**0.30**
	Road access for service and emergency vehicle	0.17	0.19	0.19	0.19	0.15	0.17	0.19	0.19	0.19	0.19	0.21	2.06	**0.17**
	Connectivity	0.19	0.38	0.33	0.33	0.48	0.38	0.29	0.38	0.33	0.33	0.43	3.88	**0.19**
	Avoiding congestion in the other part of the region	0.17	0.22	0.22	0.17	0.28	0.22	0.06	0.22	0.22	0.22	0.28	2.30	**0.17**
Socio-economical	Containing numerous pedestrians	0.09	0.17	0.09	0.26	0.35	0.43	0.09	0.35	0.35	0.35	0.35	2.85	**0.09**
	Shopkeeper and resident participation	0.09	0.17	0.17	0.26	0.26	0.26	0.09	0.43	0.26	0.26	0.26	2.51	**0.09**
	Security	0.15	0.44	0.44	0.44	0.44	0.44	0.15	0.74	0.44	0.29	0.59	4.56	**0.15**
Urban designing	Walking facilities	0.16	0.29	0.27	0.26	0.19	0.25	0.28	0.29	0.24	0.16	0.33	2.71	**0.16**
	Human scale	0.05	0.05	0.05	0.09	0.14	0.09	0.08	0.11	0.12	0.12	0.11	1.03	**0.05**
	Protecting against the weather changes	0.05	0.07	0.05	0.06	0.06	0.08	0.05	0.07	0.05	0.05	0.07	0.69	**0.05**
	Façade visual assessment	0.08	0.08	0.08	0.11	0.16	0.16	0.05	0.14	0.13	0.11	0.14	1.23	**0.08**
	Total	**1.78**	**3.01**	**2.66**	**3.12**	**3.71**	**3.91**	**2.06**	**4.00**	**3.42**	**3.06**	**3.85**	**34.58**	**1.78**

Source: authors

As shown in table 4, the factors like road access for service and emergency vehicle, nonexistence of uneven surface, appropriate pavement, good lightening, sitting place, adjacent building with two to five floors are evaluated as appropriate factors. On the other hand, indicators like access to public convenience (toilet), parking management, mixed land use, design for disabled people and public participation are considered as negative in our case studies. It means although physical and urban design dimensions were considered in making pedestrian zones, social and spatial dimension are ignored.

Results show that from 11 pedestrian zones in Tehran, pedestrian zones like Sepahsalar, 15 khordad and Shah-Abol-Azim have the best conditions and Baradarane Mozafar and 17 Shahrivar have the least scores.

Table 5. Demonstrates strengths and weaknesses of each pedestrian zone:

Pedestrian Zone	Strenghts	Weaknesses
Baradarane Mozaffar		• It is converted to a public parking; • Lack of retails and absorbing activities; • It is dominated by car-oriented and official land uses; • Lack of security ; • Inappropriate pavement; • Dead ended without car access.
Babe Homayoon	• Access to public transportation ; • Absorbing retails in south part.	• There are administrative buildings without human scale in north part.
Soore Esrafil		• There are administrative buildings without human scale in south part; • There are no absorbing retails; • There is not any residential land use;
Naser Khosro	• Adjacent to historical elements (Shamsol-Emare)	• motorized transport is dominating; • there is not any absorbing activity in western part; • large proportion of width to height; • There is not any residential land use (mixed land use).
Marvi	• Appropriate width to height portion; • Absorbing and diverse activity.	• Lack of urban furniture (seat, litter bin…); • Lack of mixed land use.
15 Khordar	• Adjacent to Tehran Bazaar; • Access to public transport (metro);	• Lack of mixed land use.
17 Shahrivar	• Access to public transport (metro).	• Security problems; • Dissatisfaction of shop keepers; • Dominating of car oriented activities; • Large proportion of width to height; • Making traffic congestion in other streets; • Dead ended without car access.
Sepahsalar	• Public participation in maintenance and management of pedestrian zone; • various design; • High level of security.	
Saboonian		• There are so many motorcycles and carts in the pedestrian zone; • Goods on sale are not appropriate for pedestrian zone.
Ehsani	• Mixed land use (commercial and residential)	• Exceeding of shops and vendors to pedestrian space; • Lack of urban furniture (seat, litter bin…);
Shah-Abdol-Azim	• Adjacent to absorbing activity (Shah-Abdul-Azim) • Diversity of restaurants and coffee shops.	• It is far from mass rapid transportation.

CONCLUSION

Although establishing pedestrian zones in Tehran shows changing urban governance approach from motorized to human-based development, making an absorbing urban space for pedestrian needs some special attentions ignored in pedestrian zone movement in Tehran. For example, public participation, which has very important role in success of pedestrian zone, has been neglected in most of case studies.

Sepahsalar is a unique pedestrian zone managed by shop keepers while in 17 Shahrivar some serious protests could be seen. There are some dead ends in 17 shahrivar without car access which made some problems for its residents. In addition, as this case was an exchange place for car seller in Tehran, a fundamental dissatisfaction could be seen between shopkeepers. Sepahsalar experience could be imitated in other pedestrian zones. A council composed of shopkeepers is in charge of maintaining and monitoring in Sepahsalar.

Another important indicator is mixed land use. Unfortunately, most pedestrian zones are in Bazaar district which has no residential building. Of course,

absorbing residential land use need a smart and long-term planning.

In some pedestrian zones (like Soore-Esrafil, Naser Khosro, and 17 Shahrivar) there are so many cars and motorcycles which are moving rapidly and consequently pedestrians could not use the space. In addition, activity type of adjacent buildings could not absorb so many pedestrians to the axis.

Making pedestrian zones in central buisiness district, while there is not any alternative mode except walking, results in some problems for citizens, which could be seen in long line of people waiting for locomotive in Babe-Homayoon and Bazaar.

Walkability strategies are not limited to making pedestrian zones, but making pedestrian network which facilates walking for people. City is like an alive creature. It is important to pay attention to the people who lives in a city. So it is important to recognize citizen needs, before making any physical changes. In fact, pedestrian zones should provide opportunities for social relationships.

Making Pedestrian zone in Iran begun about 100 years later than developed countries, and it seems that urban governance tries to compensate this delay by speeding up pedestrian zone constructing. But it should be noticed that there is a challenge in spite of this hurried actions: if walkability approach makes mistake in intermediate stages, motorized planning supporters would reject the effectiveness of walkable actions. In addition, it seems that in Tehran human-based and motorized actions are done simultaneously. So, it is important that urban governance evaluates and clarifies its approach and tries to make the city walkable based on field research and bottom-up approach and using public participation.

REFERENCES

Community Walkability. In The prinicipal of pedestrian network planning.

Forsyth, A., & Crewe, K. (2009). New Visions for Suburbia: Reassessing Aesthetics and Place-making in Modernism, Imageability and New Urbanism. Journal of Urban Design: 415-438.

Frank, e. a. (2006). Many Pathways from Land Use to Health. Journal of the American Planning Association , 7.

Kashanijoo, Kh (2010). Pedestrian Zones From Design Litrature to Functional Characteristics. Azarakhsh Press. Tehran

Kumar, R. (2009). Walkability of Neighborhoods: A Critical Analysis of Zoning Codes. Master of Community Planning, University of Cincinnati.

Mahdizade, j (2000). An ntroduction to Establishing Pedestrian Zones. Shahrdariha Journal. Tehran

Moeini, M (2011). Walkable Cities. Azarakhsh Press. Tehran

Mohamadniya, F. & Farid, S. (2010). Evaluating Effects of Pedestrian Zones toward Sustainable Urban Development (Case Study: Middle West of Mashad). Sustainable Urban Development Conference. Tehran

Ramirez. (2006). Indicators of Activity-Friendly Communities: An Evidence-Based Consensus Process. American Journal of Preventive Medicine , 15-24.