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Strategic Planning of Transportation in Iran Using SWOT and QSPM, Case study: Yazd City

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ABSTRACT

Background: In Iran many cities such as Yazd have civil transportation systems that are inefficient for many reasons. Therefore improving the efficiency of mentioned system is an inevitable issue. **Objective:** On the basis of that in this writing it has been attempted to make clear and analyze advantages, disadvantages, chances and threats of transportation in Yazd city using SWOT technique for managing transportation optimally and constantly and the presented strategies were preferred using QSPM strategy. **Results:** The result of the research indicated that the current status of transportation in Yazd city is in the aggressive manner. **Conclusion:** Therefore for the optimal management and attaining a constant transportation in this city we should use advantage points for getting abilities and potentials of the opportunities and developing capabilities.

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INTRODUCTION

Nowadays, transportation far from its eternal values and effects has turned into one of the main concerns of city residents and the most complex issues in managing them and it is impossible to live without it in the cities. Contemporarily transportation as one of the most effective aspects, encompasses all of the city life aspects and as one of the important indexes it has developed and attained special role and position [1].

The high importance of transportation and its effect on much economic, social, strategic development, policy making, environment and ..., has caused that in the entire world city managers attempt to organize transportation process in the framework of total transportation management using the newest design and planning methods and adopting all possible tools and providing cooperation context between the experts of different fields to provide a balanced and constant solution for city transportation issues while ameliorating factors cause inconstancy in city transportation and improve the efficiency and effectiveness of this system[2]. In our country also transportation is one of the main concerns of metropolis management. Far from exaggeration, from the first advent of transportation devices in Iran in Ghajar period and development in cities, hitherto transportation management in our cities has been faced with plethora of changes for the reasons like imported equipment, non-existent of culture in use, change process of intra-city transportation structure, new technologies, changing habits and social and cultural needs of people and so on [3]. During these years managers and city planners have attempted to apply experts in many fields of transportation have a general view to transportation issues and solve the problems of long term plans by presenting total strategies. But from planning the first transportation plan in Tehran in 1995 so far many of the other large-populated cities of Iran have been equipped with this transportation plan [4]. These problems have persisted despite large expenses of government and experts and none of the proposed plans and programs has solved these problems and even we can claim that we are confronted with newer problems every day. Geographers and planners have focused on transportation for two reasons first, that transportation terminals, substructures, equipment's and networks have occupied considerable space in geography and are considered main bases of complex space [5]. Secondly as

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geographers seek to explain the space relations, in this case they pay special attention to networks [6]. These networks make possible the reciprocal space relationships. An ideal transportation model is momentum, has restricted capacity, always available and with the geographical view, the main aim of the transportation is overcoming the space. The question is that by which model we can analyze the pace optimally and perform the best strategic plan by knowing its potentials and restrictions [7]. In fact the strategic plan, the art of designing is performance and assessment of decisions that a company attains its long-term goals. Therefor with respect to the main role of this system in city, the importance of this research becomes more apparent. This research using this strategy, field studies and detecting strong and weak points, opportunities and threats by SWOT method presents strategies and methods considering the current transportation situation in Yazd in order to obtain an invariant development of city transportation.

Research Zone:

The area of County of Yazd is 130458 square kilometers [8] and it has located in center of Iran and margin of Kavir plain. This county has 11 cities (Yazd, Abarkooh, Ardakan, Bafq, Taft, Khatam, Sadoq, Tabas, Behabad, Mehriz and Meybood), 24 towns, 22 districts and 51 parishes. Yazd city is the second "clay city" and "historical" city in the world. This city had a central part and Zarch, Hamidieh, Shahedieh, Zarch and towns like Fajr, Fahroj, Elah Abad and Mohammad Abad. Yazd city has the geographical coordination 54 degrees and 22 minutes in east vertically and 31 degrees and 53 minutes in north horizontally and it is the biggest historical city of this county and official center of Yazd. This city has been located in internal plateau of Iran [9] and its average height from the sea level is 1230 meters. This city has other old names like Isatis, Kaseh, Wuthering city, and bicycle city and worship place. This city has 3 districts, 9 regions and 42 quarters. On the basis of general capitation in 2011 the population of this city is 582682 persons and encompasses 54.23 percent of the county's population.

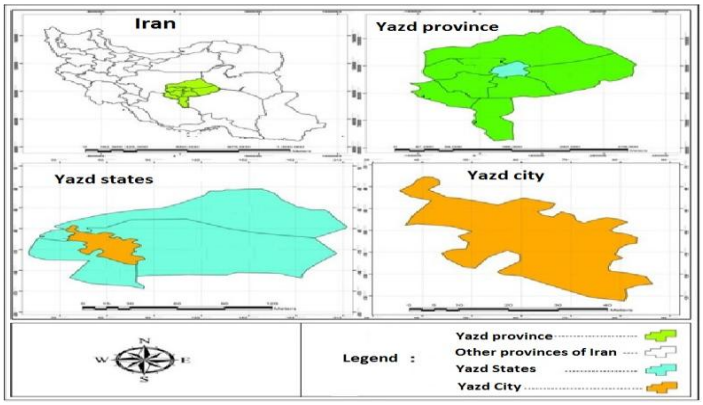

Fig. 1: The location of Yazd city in the divisional map of Iran-2014, Source: Authors.

Methodology:

The present research has practical purpose and descriptive-analytical approach. We have used library surveys, field studies, observation, interview and questionnaire. In the first stage the transportation authorities of Yazd and transportation thinkers have been interviewed for total understanding of the subject matter, and then by using a questionnaire we asked the ideas of active transportation experts in the field of transportation management. Then the gathered data were analyzed by SWOT model (figure2) and strong, weak points, opportunities and threats of transportation system in Yazd were detected. In the next stage using the experts' ideas we weighed the factors and finally according to the current situation of the transportation system in Yazd, stable practical strategies for attaining stable transportation system in this city were proposed. Finally the proposed strategies were rated using QSPM technique.

Results:

One of the most suitable planning techniques and analytical strategy is SWOT matrix the planners and strategy evaluators use it as a modern tool for performance analyses [11]. The SWOT technique is a device for detecting opportunities, threats in outer environment of a system for measuring the control strategy [12]. Therefore by suing SWOT model and adopting a suitable strategy we maximize the opportunities and minimize the weak points and threats. For this purpose at first the threats, weak points, strong points and opportunities are linked in SO, WO, ST, WT and the strategy options are selected among them [13]. In general we can use SWOT model for assessing internal strong and weak points and external opportunities and threats of a system that is used for detecting strategy and orientation of the considered organization [14]. This model is the best strategy for organization. The logic of the mentioned approach is that the effective strategy should maximize the

opportunities and strong points and minimize the threats and weak points [15]. This logic, if manipulated correctly, will have great results for selection and designing an effective strategy [16].

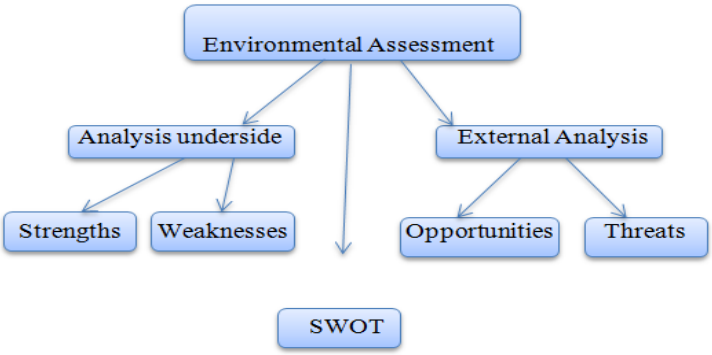

Fig. 2: SWOT technique matrix, source: [10].

Internal factors evaluation (IFE) matrixes:

In this stage the most important strong and weak points of a questionnaire and interview from experts adopted and then it is assessed and then each of this factors are assigned zero to one coefficients that their total is one [17]. For detecting the final score, the coefficient of each factor is multiplied with its score. Total final scores are summed in order that final score of factors is obtained.

Table 1: The results of internal factors analysis (strong and weak points).

Row	Strong points	Assess	Rating	Scores
1	Paying attention to the optimal management of traffic and using control traffic centers	0.09	4	0.36
2	Preparing intelligence transportation system (ITS) and intelligent control of intersections	0.08	4	0.32
3	Covering the main routes of the city by taxi and bus system	0.07	4	0.28
4	Equipping the intersections and squares of the city with traffic sings and route guidance	0.07	3	0.21
5	Considering clean transportation system like biking, walking and special lines for bikes	0.07	3	0.21
6	Availability of sources for performing modern traffic plans	0.06	3	0.18
7	Building a large park for training traffic culture	0.06	3	0.18
8	Implementing technical examination in city	0.05	4	0.20
	Total	0.55		1.94
	Weak points			
1	Insecure pedestrian network especially for the disabled, children and old persons	0.07	4	0.28
2	Lack of experts in traffic issues and its management	0.07	4	0.28
3	Non-existent of undependable organization in the realm of transportation and traffic management	0.06	3	0.18
4	Discrepancy between transportation and pedestrian network with respect to current requests	0.05	3	0.15
5	Lack of parking especially in downtown and in some other districts	0.04	3	0.12
6	Problems of communication in central district of city and historical areas and trafficking vehicles with just one driver	0.04	3	0.12
7	Increase of motorcyclists and non-existent of special lines for the, in the city	0.04	3	0.12
8	No on time reporting of traffic issues using billboards	0.03	2	0.06
9	Very outdated transportation devices and low quality of them	0.03	3	0.09
10	No design for general transportation stations and lack of distinct taxi stands.	0.02	3	0.06
	Total	0.45		1.46

Pointing to the research results, optimal management of traffic and using traffic control center with assess score of 0.36 and getting intelligence transportation system and intelligence control of intersections with assess score of 0.32 they were respectively the main strong points of transportation system in Yazd city and lack of secure in crossing network for the disabled, children and old persons and shortage of traffic experts and their management has assess score of 0.28 and no- existent of independent organization for managing traffic and transportation had the assess score was 0.18 and total internal factors assess was 1 and its assess score was 3.4.

External Factors Evaluation (EFE) matrix:

In this step like previous step the main opportunities and threat of transportation in Yazd is rated. Then each of these factors takes zero to one coefficient. The sum of them is one. We score 1 to 4 for each of these opportunities and threats. For detecting the final score coefficient of each factor is multiplied by its score. Sum of the final scores is calculated for detecting final internal factor score.

Table 2: Analysis report of external factors (opportunities and threats).

Row	Opportunity points	Assess	Rating	Scores
1	Daily treatment of citizens by authorities about the issues of traffic and its problems	0.09	4	0.36
2	Applying heavy traffic laws nationally for driving offences	0.08	4	0.32
3	Using public cooperation and no- governmental organizations in getting, performing and surveillance of traffic plans	0.07	4	0.28
4	Special position and role of Yazd as a historical city from internal and external tourism perspective	0.06	2	0.12
5	Emerging traffic problems and prominent role of mayor in controlling these problems	0.06	3	0.18
6	Using mass media for general training to citizens and extending traffic etiquette	0.06	3	0.18
7	Motorcycle match studies and organizing motorists for decreasing accidents and offences	0.05	3	0.15
8	Tendency of citizens to using general transportation devices like bicycle	0.04	3	0.12
9	Cooperation and using private power in implementing aerial bridges and crossing area in a mechanized manner	0.03	2	0.06
	Total	0.54		1.77
	Threat points			
1	Lack of assigned budget of mayor of Yazd for city traffic management	0.08	4	0.32
2	Non-flexibility of Yazd citizens confronting traffic changes and there residence against this issue	0.07	4	0.28
3	Lack of clear traffic panorama in the country and Yazd city	0.07	3	0.21
4	Unruly development and growing of Yazd	0.07	3	0.21
5	Weak cooperation of authorities of traffic and late ratification of traffic plans	0.05	3	0.15
6	Lack of general driving training to young generation	0.05	3	0.15
7	Non-availibity of transportation system in downtown	0.04	2	0.08
8	Low traffic etiquette of public and drivers and shortage of centers which spread these etiquettes.	0.03	3	0.09
	Total	0.46		1.49

According to the results, direct treatment with citizens and traffic authorities and their problems with assess score of 0.36 and applying driving rules nationally with the score of 0.32 and using public cooperation and Non-governmental organizations in getting, performing and surveillance on traffic plans with the score of 0.21 respectively were the most important opportunities in city transportation and lack of the budget of Yazd for traffic management with score of 0.32 and resistance of them against this problem with score of 0.28 were respectively most important threats of Yazd transportation system, sum of the external factors assess was 1 and its assess score was 2.63.

Strategy Planning:

SWOT matrix brings about four different options or strategy (aggressive, conservative, variety, defensive) through mixing internal and external factors matrix [18]. Of course some strategies overlap each other or are performed simultaneously. The four strategies are classified as following [19]:

Defensive strategy (at least-at least):

The purpose of this strategy is that also called stable strategy, is to decrease the weak points of the system and eliminating the threats and its aggressive form.

Synchrony strategy (at least-at most):

This strategy concentrates on internal weak points and tries to use external opportunities for eliminating weak points facing optimal management of stable transportation system in Yazd. On the other hand, this strategy tries to use opportunities while decreasing weak points.

Requirement strategy (at most-at least):

This strategy eliminates threats using strong points of system and its aim is maximizing strong points and minimizing threats.

Aggressive strategies (at most-at most):

All the systems seek the situation in which they can simultaneously maximize their strong points and opportunities. Unlike the defensive strategy that is reactive one, aggressive one is an active one that tries to use optimally from external opportunities using strong points [20].

Forming internal and external (IE) matrixes:

In this step on the basis of the final scores of assessing internal and external factors of the discussed issue, four strategies of competitive (aggressive), survey (conservative), 3 variety, 4 defensive is detected [21]. In this step assess score of total internal factors' matrix and external factors' matrix have been extracted and draw there in the internal and external matrix table. According to the assessment table of total score obtained from internal

factors matrix is 3.4 and total score of external matrix is 3.26. Then we draw them in X and Y coordination system for showing the transportation location.

Table 3: Proposed strategies for optimal management and accessing stable transportation in Yazd on the basis of the SWOT technique.

matrix SWOT		
	Requirement Strategy(ST) -establishing thorough transportation perspective in the country level and Yazd for optimal management of traffic. -increasing the dedicated budget for managing city traffic and transportation as a vital part of the city facilities. -Preventing horizontal spread of Yazd by mayor and other legal systems. - establishing of the strict traffic rules and time limits by legal systems. -encouraging for the remind of the bike city to the citizens in order that they use more from general transportation devices like bike. -Flexibility of Yazd citizens confronting traffic changes by improving their knowledge of traffic rules and establishing parks and fields for training the traffic culture. -Automatic sending of general transportation vehicles using ITS system in the city. -Using special sings in detected distances in squares and intersections. -Preparing for adopting new technologies in ITS among the citizens. -Applying traffic rules such as creating traffic district in downtown.	**Aggressive Strategy(SO)** -encouraging citizens to use clean transportation devices by applying encouragement policies and supporting private departments. -increasing general optimality such as equipping general transportation devices with cooling and warming systems. -advertising for using clean transportation devices such as biking and walking by non-governmental organizations. -preparing traffic etiquette constantly through general media in relation to the risks of not using secure equipment's and distributing notebook and book on transportation etiquette. - preparing substructures adjusted with intercity links and systems in national and local level. -building bus rapid transportation (BRT) and subway with respect to the touristic position of the city. -building motorcyclist department management in transportation cooperation center in Yazd. -encouraging traffic management staff for proposing traffic suggestions of citizens and private departments. -Making the technical examination obligatory and collecting the vehicles without having secure principles. -preparing suitable cross area for pedestrians in accordance with the standards.
	Defensive Strategy(WT) -increasing staff skills (managers and employees) of related organizations of city traffic management and training them for establishing a good relationship with citizens and answering their needs. -making citizens aware and convinced of positive effect of traffic rules. -suing encouraging and punishing policies for drives and even pedestrians. -making laws for not using motorcycle in downtown and historical district of the city except general transportation devices and inhabitants there. -intelligent management of general parking in the city. Making aware of the police officers from the importance of surveillance and persuading them to continue this surveillance. -using van and minibus in the routes with fewer buses. -training different motorcyclists.	**Synchrony Strategy(WO)** - Re-correcting the bus system and establishing stands for taxis. - Building suitable stands with ceiling for general transportation. - Building guide system and routing on the basis of the live traffic data by ITS system. - Training the crossing rules to the pedestrians through public cooperation and NGOs in private departments and increasing the number of bridges for crossing. - Building lines for motorcyclists in busy and crowded routs. - Suitable topography for building parking especially multi-functional ones. - Improving the transportation and mayor cooperation of Yazd city into transportation and traffic management. - Establishing traffic culture among citizens using their cooperation and private sectors'. - Using van and minibus instead of old bus system.

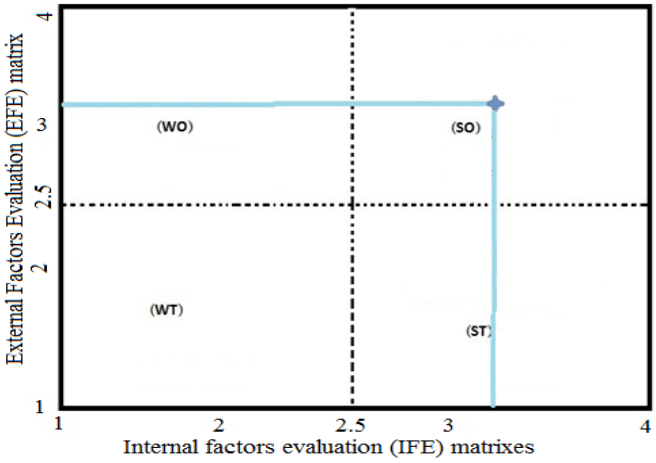

Fig. 3: Internal-external matrix of transportation situation in Yazd.

Evaluation of strategies using quantity strategy planning matrix (QSPM):

Quantity strategy planning matrix is an analytical method that we can detect the partial attraction of the strategies. However we can detect various strategies among the best ones. For preparing the quantity planning matrix of external and internal assess matrix and its results we use SWOT. In this method at first opportunities and external threats along with external and internal weak points and strong points ate assigned coefficient,

these coefficients are assessment matrix of internal and external; factors. On the above row of the strategic planning matrix, detected strategies are recorded by SWOT matrix. In the next step the attraction scores ate detected, for detecting them we should examine whether the external and internal factors cause organizational success and pose this question about them has this factor any role in choosing these strategies. If the answer is positive, we should compare the strategies that their partial importance in relation to each other is obtained. The attraction scores are following 1. Lack of attraction, 2. Partial attraction, 3. Average attraction and 4. High attraction. In the next step we calculate attraction scores and coefficient is multiplied with attraction scores. The sum of the attraction scores indicated partial attraction of the strategies obtained from external and internal factors. As the sum of the attraction scores is high, the discussed strategy will have more attraction. And finally the sum of the attraction scores of each columns of the matrix is calculated.

Table 4: Rating of the detected strategies in SWOT technique

Strategy		**SO1**		**SO2**		**SO3**		**SO4**		**SO5**		**SO6**		**SO7**		**SO8**		**SO9**		**SO10**	
Threat	assess	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum	Attraction score	Attraction sum
Lack of assigned budget of mayor of Yazd for city traffic management	0.08	2	0.16	2	0.16	3	0.24	3	0.24	2	0.16	3	0.24	2	0.16	3	0.24	3	0.24	2	0.16
Non-flexibility of Yazd citizens confronting traffic changes and there residence against this issue	0.07	2	0.14	3	0.21	4	0.28	2	0.14	3	0.21	4	0.28	3	0.21	2	0.14	3	0.21	1	0.07
Lack of clear traffic panorama in the country and Yazd city	0.07	2	0.14	2	0.14	1	0.07	3	0.21	4	0.28	4	0.28	2	0.14	1	0.07	2	0.14	2	0.14
Unruly development and growing of Yazd	0.07	3	0.21	2	0.14	2	0.14	4	0.28	2	0.14	1	0.07	2	0.14	1	0.07	1	0.07	3	0.21
Weak cooperation of authorities of traffic and late ratification of traffic plans	0.05	3	0.15	4	0.2	2	0.1	2	0.1	2	0.1	3	0.15	2	0.1	2	0.1	1	0.05	1	0.05
Lack of general driving training to young generation	0.05	2	0.1	1	0.05	2	0.1	4	0.2	1	0.05	4	0.2	4	0.2	4	0.2	1	0.05	2	0.1
Non- availibity of transportation system in downtown	0.04	4	0.16	3	0.12	4	0.16	2	0.08	3	0.12	1	0.04	3	0.12	3	0.12	4	0.16	3	0.12
Low traffic etiquette of public and drivers and shortage of centers which spread these etiquettes	0.03	3	0.09	2	0.06	3	0.09	4	0.12	3	0.09	2	0.06	3	0.09	4	0.12	1	0.03	2	0.06
Opportunity																					
Daily treatment of citizens by authorities about the issues of traffic and its problems	0.09	2	0.18	2	0.18	3	0.27	3	0.27	3	0.27	2	0.18	3	0.27	2	0.18	3	0.27	1	0.09
Applying heavy traffic laws nationally for driving offences	0.08	1	0.08	3	0.24	2	0.16	3	0.24	2	0.16	4	0.32	4	0.32	3	0.24	3	0.24	4	0.32
Using public cooperation and no- governmental organizations in getting, performing and surveillance of traffic plans	0.07	2	0.14	4	0.28	2	0.14	4	0.28	4	0.28	3	0.21	1	0.07	4	0.28	2	0.14	2	0.14
Special position and role of Yazd as a historical city from internal and external tourism perspective	0.06	3	0.18	2	0.12	4	0.24	2	0.12	2	0.12	2	0.12	2	0.12	4	0.24	3	0.18	4	0.24
Emerging traffic problems and prominent role of mayor in controlling these problems	0.06	3	0.18	2	0.12	4	0.24	3	0.18	4	0.24	2	0.12	2	0.12	3	0.18	2	0.12	3	0.18
Using mass media for general training to citizens and extending traffic etiquette	0.06	4	0.24	4	0.24	3	0.18	3	0.18	3	0.18	3	0.18	2	0.12	3	0.18	3	0.18	2	0.12
Motorcycle match studies and organizing motorists for decreasing accidents and offences	0.05	2	0.1	1	0.05	3	0.15	4	0.2	2	0.1	2	0.1	4	0.2	2	0.1	2	0.1	1	0.05
Tendency of citizens to using general transportation devices like bicycle	0.04	2	0.08	3	0.12	2	0.08	2	0.08	3	0.12	2	0.08	3	0.12	3	0.12	2	0.08	1	0.04
Cooperation and using private power in implementing aerial bridges and crossing area in a mechanized manner	0.03	2	0.06	3	0.09	3	0.09	2	0.06	4	0.12	2	0.06	2	0.06	1	0.03	4	0.12	4	0.12
Strong points																					
Paying attention to the optimal management of traffic and using control traffic centers	0.09	3	0.27	2	0.18	2	0.18	2	0.18	3	0.27	3	0.27	4	0.36	2	0.18	4	0.36	2	0.18
Preparing intelligence transportation system (ITS) and intelligent control of intersections	0.08	2	0.16	3	0.24	2	0.16	4	0.32	2	0.16	3	0.24	2	0.16	4	0.32	2	0.16	3	0.24
Covering the main routes of the city by taxi and bus system	0.07	1	0.07	4	0.28	1	0.07	2	0.14	3	0.21	2	0.14	2	0.14	1	0.07	2	0.14	4	0.28

Equipping the intersections and squares of the city with traffic sings and route guidance	0.07	2	0.14	2	0.14	3	0.21	2	0.14	3	0.21	1	0.07	1	0.07	3	0.21	3	0.21	3	0.21
Considering clean transportation system like biking, walking and special lines for bikes	0.07	4	0.28	2	0.14	2	0.14	1	0.07	2	0.14	3	0.21	3	0.21	2	0.14	4	0.28	2	0.14
Availability of sources for performing modern traffic plans	0.06	3	0.18	1	0.06	2	0.12	2	0.12	3	0.18	3	0.18	2	0.12	2	0.12	2	0.12	3	0.18
Building a large park for training traffic culture	0.06	2	0.12	3	0.18	3	0.18	4	0.24	4	0.24	4	0.24	2	0.12	1	0.06	2	0.12	3	0.18
Implementing technical examination in city	0.05	3	0.15	2	0.1	4	0.2	2	0.1	2	0.1	2	0.1	2	0.1	4	0.2	3	0.15	4	0.2
Weak points																					
Insecure pedestrian network especially for the disabled, children and old persons	0.07	3	0.21	2	0.14	2	0.14	2	0.14	1	0.07	2	0.14	2	0.14	3	0.21	2	0.14	1	0.07
Lack of experts in traffic issues and its management	0.07	2	0.14	2	0.14	2	0.14	4	0.28	3	0.21	2	0.14	3	0.21	2	0.14	3	0.21	3	0.21
Non-existent of undependable organization in the realm of transportation and traffic management	0.06	4	0.24	2	0.12	2	0.12	2	0.12	3	0.18	3	0.18	2	0.12	3	0.18	2	0.12	4	0.24
Discrepancy between transportation and pedestrian network with respect to current requests	0.05	3	0.15	4	0.2	4	0.2	2	0.1	3	0.15	4	0.2	1	0.05	2	0.1	3	0.15	2	0.1
Lack of parking especially in downtown and in some other districts	0.04	4	0.16	2	0.08	3	0.12	1	0.04	2	0.08	3	0.12	1	0.04	1	0.04	3	0.12	4	0.16
Problems of communication in central district of city and historical areas and trafficking vehicles with just one driver	0.04	3	0.12	3	0.12	2	0.08	3	0.12	1	0.04	2	0.08	1	0.04	4	0.16	1	0.04	2	0.08
Increase of motorcyclists and non-existent of special lines for the, in the city	0.04	2	0.08	4	0.16	3	0.12	2	0.08	1	0.04	1	0.04	3	0.12	2	0.08	1	0.04	1	0.04
No on time reporting of traffic issues using billboards	0.03	3	0.09	2	0.06	2	0.06	2	0.06	1	0.03	3	0.09	4	0.12	3	0.09	2	0.06	2	0.06
Very outdated transportation devices and low quality of them	0.03	2	0.06	2	0.06	2	0.06	3	0.09	1	0.03	2	0.06	3	0.09	2	0.06	1	0.03	2	0.06
No design for general transportation stations and lack of distinct taxi stands.	0.02	3	0.06	2	0.04	4	0.08	2	0.04	2	0.04	2	0.04	2	0.04	4	0.08	3	0.06	4	0.08
Priority		5.07	5	4.96	7	5.11	4	5.36	1	5.12	3	5.23	2	4.81	10	5.05	6	4.89	9	4.92	8

The results of the QSPM matrix indicated that among the proposed strategies in SWOT matrix, establishing arena for training traffic culture and sequential training through media result from not using secure equipment and distributing books and notebooks and … in relation to the traffic culture has been rated as attraction score of 5.36 and score of BRT and subway with respect to the touristic position of city ranked 5.23 in the second level, preparing substructures linkable and compatible with intercity systems nationally and locally raked 5.12 in the third level and establishing motorcycle department in transportation cooperation of Yazd has been rand lower than others with the score of 4.81.

Conclusion:

Every planning for the cities should be performed in the framework of the stable development. Transportation is a vital parameter for all aspects of city life. Therefore in planning from the perspective of stable development, the transportation system should be designed in a way that is compatible with stable development.

Nowadays, transportation aside from its effects is one of the main issues of citizens and the most complex problems in management field and we cannot imagine living in city without it. Contemporarily, transportation is one of the effective elements in all aspects of city life and most important devices that have gained development, role and position. In our country transportation is one of the issues of city management. So far transportation management in our city has faced with many problems because of challenges. Yazd is also isn't exceptional from this issue. For this purpose in this study weak and strong points, opportunities and threats were presented SWOT model and field studies .and then the aggressive topography and current situation of transportation in Yazd was ranked by QSPM technique. The results showed that the situation of transportation in Yazd is aggressive one and therefore for optimal management and attaining stable transportation we should use internal strong points of this system and external capabilities and potentials that the discussed strategies can make a great situation for attaining stable transportation.

- Creating space for training traffic rules and etiquette through the media relating the risks of not using secure equipment and distributing book, notebook and ... Related to transportation and traffic culture.
- Establishing BRT and subway with respect to touristic position of Yazd.

-Establishing substructures compatible and related with intercity systems nationally and locally.
-Advertising for using clean transportation devices like biking and walking through public organizations and NGOs.
-Encouraging citizens for using clean transportation devices through applying encouraging policies and supporting active private sectors in this field.
-Encouraging traffic staff for proposing traffic suggestions by citizens and private sectors.
-Increasing general satisfaction by equipping the public transportation vehicles with warming and cooling systems.
-Correcting the useful crossing area of pedestrians in accordance with proposed standards.
-Making technical examination of vehicles obligatory and collecting vehicles without having prime secure principles.
-Establishing motorcycle department in transportation cooperation of Yazd mayor.

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