



## Assessment of Urban sustainable Development in metropolis of Mashhad based on SWOT Technique and QSPM Strategic Program

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### ABSTRACT

Continuation of the increase of urban population in countries has caused various issues, including developed without planning, environmental pollution, high energy consumption and so on. Thus, the current patterns of urban development that is strongly influenced by the rising urban population are a serious threat to human existence and sustainable Life. Metropolis of Mashhad, the second largest metropolis in the country affected from natural And Its historical Source have Geopolitical and geographical, Political, economic And Pilgrimage position and very important social and tourism function. Lately This Position At Several Decade Cause Major problems Of At sustainable Development That Including: 1) Life Environmental pollution 2) weakness At Of Management Urban System 3) weakness At System Management of Transportation Network 4) Horizontal Development 5) weakness on Urban fundamental 6) lack of Balanced Distribution at Urban function 7) Sector Development of City 8) Widespread margins 9) weakness At taking part of People. In This Article the Structure of metropolis of Mashhad Analysis from the opinion of Access to Urban sustainable Development by using SWOT Technique at Four levels. Results show that whole Score Of Matrix Table, the internal factors are 2.83 and external factors are 2.70 that the resulting number was lower than mean, In fact haven't used From obtained Strength And opportunities to Prevails Weakness And Threats. And Type of Result Strategy is Defense strategy. At the end For Elimination of Available problems, Strategies offered Basis on QSPM Matrix.

**Keywords:** Urban sustainable Development, SWOT Technique, QSPM Matrix, metropolis of Mashhad.

## **1. Introduction**

Sustainable development means providing solutions to mortal, physical, economic, and economic development patterns that can lead to problems such as natural destruction, destruction of biological systems, massive population growth, inequity, and lower quality of life for humans (Lavasani, 1993). The continued increase in the urban population in different countries has affected many different cities, including spatial imbalances, sharp fluctuations in land prices, housing, urban creep, social polarization (Seyfoddini et al., 2012) Environmental pollution, higher energy consumption, unplanned development, cost increaseNo infrastructures, under construction of agricultural lands (Rahnama and Abaszadeh, 2008, 93), the multiplication of urban areas, the formation of low density buildings on the city's margins and the difficulties of service. According to The current patterns of urban development, which are heavily influenced by urban population and its upward trend, are known to be a serious threat to human survival and sustainable life on the planet, therefore, in the 1990s, the issue of sustained urban form or form was raised. Consequently, the 1992 Rio Conference concluded that the Earth-resolution long-term development model without fundamental changeswill not be sustainable and major changes must be made to achieve sustainable development (brehny, 1992), which led to the concept of sustainable development to be as the theme issues of the last decade of the 20th century at the international, national, regional and Local area.

The Mashhad metropolis with an area of 30541.4 hectares and a population of 2766258 people and a gross density of 90 people per hectare is the second largest metropolis in the country, affectedFromThe originnormalAndHistorical, and geopolitical location,Political,economicAndSocial and important function of pilgrimage and tourism.The metropolis is the second largest city in the country in the marginal challenge, and in terms of land ownership, with a share of 43% of urban land, it has distinct conditions than other metropolises of the country.

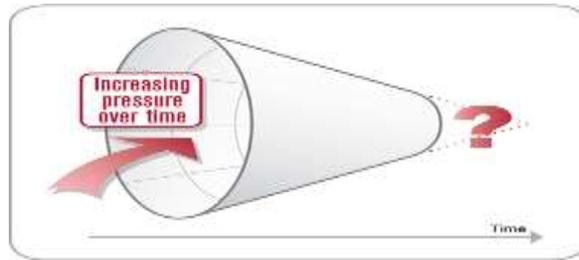
ThisPositionat Lately Decade Causing Grow City andFigureStickingproblemsAndDifficultiesMajoratField of Urban sustainable Developmentthatseemsthe Root of Many of theseDifficulties comeFromHorizontalSpreadand physical grow that the most importantproblemsAndmajorchallengesAtThese include:

1)environmental pollution, 2) lack of urban management systems (projectDevelopment of Mashhad Metropolitan, 2011, p. 11 and 12), 3) The weakness in the system of transportation network management and the lack of a massive and continuous public transportation system(Studies on the Comprehensive Transportation Studies of Mashhad City, 2009, p. 2), (4) horizontal development, (5) the weakness of urban infrastructure, (6) the unbalanced disturbance of urban utilities and their lack of conformity with transportation networks General, 7) development of the sector on the basis of socio-economic structure, 8) widespread marginalization, have Been involved theMetropolisToStronglyInequalityOfsocialEconomicAndSpatialPhysical,9) lack of public participation (Metropolis development plan of Mashhad, 2012, pp. 11-

12). So with attention to major problems and strategic the metropolis of Mashhad that is at the level of convert to the urban crisis is solved to make it's and to access intended purpose to sustainable urban development, with emphasis on presentation strategies principled and macro-based on sustainable urban development take necessary. But since each city has different patterns of growth due to its natural constraints, facilities, planning policies, and various patterns of growth (Rahnama, 2008), each model will have different outcomes than its type of expansion. So this research was followed by the following questions: 1. What factors are internal factors (points strength and weakness) and external factors (opportunities and threats) in achieving sustainable urban development in Mashhad metropolis? 2. What is the most important solution for sustainable urban development in Mashhad metropolitan area? And in fact, the above questions follow the following assumptions: 1-in the inside environment, weakness points on strengths and outside environment threats on the opportunity are superior and dominant. 2-The most important way to achieve sustainable urban development in Mashhad is using defensive strategy.

## **2. Literature Review**

The term of sustainable development for the first time in the mid-1970s can be attributed to Ms. Barbara (Badri, 1996, 44-45). Much of the sustainable development topics can occur in the city. As McNeil believes, sustainable development is becoming more and more relevant to the city. The main reasons for this close relationship must be the distribution of the population, the role and activity of governments at different levels, and the production and consumption of goods and services that have significant effects on ecological issues with economic systems. On the one hand, most environmental degradation occurs in cities, and on the other hand, the most effective ways to promote environmental can be implemented in cities. In terms of physical, urban sustainable development, means changes in land use and densities to meet the needs of residents in the housing, transport, leisure and food to be made economically viable (the urban economy in accordance with the technical changes and industries to keep entry-level jobs and providing affordable housing and affordable to residents, the tax burden per capita fair), socially hold integrated (land use patterns of social cohesion and sense of belonging of citizens to the heritage of the city will promote) the flexible management were up over time in terms of environmental habitable and life. (Clean air, clean water, land and surface water and ground pollution, etc.). Sustainability challenge can be described using a funnel metaphor, Figure 1 shows that the social and environmental system is declining over time through resource constraints, ecosystem degradation, conflict and social insecurity that this The issue continues to diminish the capacity of resources to support the human community and future generations. The question mark at the bottom of the funnel show not indicated the future. Now, in order to achieve social and environmental sustainability, society must change its performance in such a way that it can establish a natural balance in systems on the planet. (Colldahl et al, 2013).



**Figure 1:** The funnel metaphor (*TNS Canada 2013c*)

Half of the world's population is currently resident in cities and is expected to increase to 70% by 2050. (UN World Urbanization Prospects, 2011) Only 80% of citizens in Europe live in cities and work. (Correia & Wunstel , 2011 ) Cities have reached the current economic growth is predicted by 2025, 600 of the largest cities in the world, 60% of global GDP they produce. (McKinsey Global Institute, 2011) And 80% of the world's greenhouse gas emissions come from cities, which indicate that cities have a significant contribution to climate change. (Lazaoiu and Roscia, 2012) The rate of urban growth and its damaging effects solutions for management challenges is necessary(Nam and Pardo, 2011). Cities are inherently facing widespread challenges that can only be solved through a systematic approach. Urban planning and design is the process of building a city that brings together different parts and components of the environment to create a place. To achieve such goals, has to: 1) communicate successfully between the public and private sectors; 2) reconcile the program. Urban design and design is needed. (Markham, 2013, p: 2).

### **3. Methodology**

The Approach of research was Qualitative and quantitative and is applied research. The research Method have been descriptive- analytical And Collecting Needed Information Item for Research from Studies in library And Using Documents and Contains Refer To Different organizations of Mashhad metropolis And observation And Record Information. And At its review situation of Mashhad Metropolis sustainability and then to analyze data the SWOT technique were used. For this intended purpose have been Studied internal environment and external environment of Mashhad Metropolis and Then to complete Information by questionnaire with 20 People Statistical Society between Current Urban Managers, Urban scholars and experts For Weight and Scoring in Available situation For All internal Factors (Weakness and Strength Points) and foreign Factors (Threats And opportunities) Item have been Use. Actually the above Method Decomposition and analyze Model at Four level done. Evaluation inside and outside Strategic Factors of Metropolis in Mashhad: All inside and outside Factors In achieving sustainable urban development in Mashhad evaluated And Important Factors Detected and has been determine their priority with importance. For evaluation inside and outside Strategic Factors have been used IFE matrices (INTERNAL FACTOR EVALUATION) and EFE (EXTERNAL FACTOR EVALUATION). The results of these matrices, the strategies are determined on the coordinate axis.

- edit Strategies of SWOT Quadruple Strategic

From Comparison points of Weakness, threaten and the opportunity The SWOT And Done Decomposition SWOT Quadruple Strategic presented. And by this evaluation, Four Kind of Strategic Strategy SO, ST, WO, WT obtained.

**Table1:** SWOT Quadruple Strategic

		internal environment	
		Strengths( S )	weaknesses (W)
The external environment	Opportunities ( O )	Aggressive strategy	Adaptive strategy
	threats( T )	Contingency strategy	Defensive strategy

Source: www.xand.ir

- Priority of Strategies by Using QSPM Matrix

Levels formation QSPM matrix (Matrix Program quantitative Strategic) is: In First Column Contents Matrix of Exterior Strategic Factors, Included All Threats And the opportunity And Internal Strategic Factors, included all weaknesses And Strength.This Factors Just like that IFE matrices and EFE is given. In the Second column point Weight of Strategic Factor Exactly extracted and Listed from Table of General priority Factors. And At Next column some types of Strategy obtained from SWOT matrix and includes four strategies SO; ST, WO, WT and Any Columns Related to Types of Strategies divided To Two under column. One of sub column is AS and the other is TAS. In The following column Any Factor Take with Strategy Item and Have been Measured and Have been given score point: Score 1 = not attractive, Score 2 = somewhat attractive, 3 = acceptable, 4 = attractive high rating. If That Response to above Question to be negative show That Strategic Factor does not have Effect on Choosing Strategy so the point of attractiveness For It's Strategy At row Factor Strategic is Equal one. Privileges Second column Take Multiple at point And whole point of have been Insert at column TAS and show The Relative attractiveness of Any one From Factors On Strategy Item Opinion. Total TAS scores at row down of Table calculated that is number the same Priority score Strategy.

**4. Finding**

The Mashhad metropolis with an area of 30541.4 hectares and a population of 2766258 people and a gross density of 90 people per hectare is the second largest metropolis in the country, affected From The origin normal And Historical From Geopolitical and geopolitical location, Political, economic And Social and important function of pilgrimage and tourism. The metropolis is the second largest city in the country in the marginal challenge, and in terms of land ownership, with a share of 43% of urban land, it has distinct conditions than other metropolises of the country. This Position At Lately Decade Causing Grow City And Figure Sticking problems And Major Difficulties At Field of sustainable Urban Development that the Root of Many of This Difficulties is At More Horizontal Spread And physical Grow that can Be the most important problems And major challenges At This field includes: 1) environmental pollution (air pollution, noise pollution, etc.), 2) weakness in urban management systems (Mashhad Metropolitan Development Project, Holy Sepulcher, 2011, p. 11 and 12), 3) weakness in the management system of the transport network and the lack of an extensive public transport system and continuous (Intense density of Personal Cars, the Heavy traffic At Center City, Intense Air Contamination, Waste to go Fuel And Energy Increase the length And Time a trip,

Increase the count Crashes And damages Johnny And Financial Heavy And also Lack of the balance Value the earth At metropolis Mashhad Including Issues That are Caused From Inefficiency Network Passages, Unbalanced It's Distribution And Insignificant Share Per capita Carry Carriage General At The area of Mashhad metropolis) (Studies on comprehensive studies of transportation in Mashhad, 2009, p. 2),4) horizontal development (increase the population in cities And Focus Intense Activity And Residence In the city Mashhad And To Follow It's Extend And Development Horizontal City Specially On the Agriculture earth Around And Domain Mountain Along To Interference Of Lacking Program), 5) lack of urban infrastructure (Metropolis of Mashhad City because of Multiple reasons Including Exhaustion And Inappropriate Distribution network Of Installations people Facing With A lot of Difficulties),6) Lack of balanced distribution of urban land and non-compliance with public transport networks (disharmony Between How Distribution user the earth And Features and Urban Services at Different areas and also Lack of Attention To its Relationship with Carry and Quotes Program).Actually Upload Rate of Activity and How Establishment and It's Place pattern From One side expresses its Volume and Tensile on Carriage Network and from the other side is under the impact of How and Rate access To The way Network. ), 7) sector development of city is based on the socioeconomic, 8) Widespread marginalization that involved the Metropolis with Strongly Inequality Of social Economic and Physical Spatial. (Includes 42 marginal neighborhoods dispersed on the northern, northeastern, eastern, southern and southern parts of the metropolis), (9) weakness in popular participation (Mashhad city metropolis development plan, 2011, p. 11). 12). evaluation And analyze of Sustainability condition of Mashhad metropolis have Done Basis On Qualitative and quantitative Information With Use From Strategic planning method SWOT in Framework of Internal environment Factors (Weakness And Strength points) and external environment (Threats And the opportunity) , At Mashhad metropolis At Four Dynasty level for Arranging future Solutions And Program to Take At The framework of Strategic Goals For Achieving sustainable urban development in Mashhad metropolis.

4 -1 Evaluation of inside and outside Strategic Factors of Sustainability condition of Mashhad metropolis

- IFE matrix

This Matrix is Tools for review of internal Factors.

So we put Strength and Weakness point of Mashhad Metropolis In achieving sustainable urban development Identification In the column respectively. So after Identification of internal Factors And Strength And weakness points of Any which From Factors one Coefficient Weight Between zero to one Assign given And Normalized to Weight That Total Coefficients Weight Assign given should be Equal one.For Determine Weight of Each Of the factors and decision Around Factors With importance Use from Experts and Pundits Comments And then Normalized Weight of Factors between Zero until the one. And also for Normalized can use from Normal function too That Current Status of each Factor Determined with Concession 1 to 5 with Attention to under Criteria this is called the 'Current Status Score'. Very good = 5, above average = 4, average

= 3, lower than average = 2 and poor (bad) = 1. And Ultimately Total Privileges weight have been Calculated At least 1 and maximum 5 and average 3 If final Score of IFE matrix At Oversight Strategies to be less than 3 it means the Strategy Item In terms of internal Factors have Weakness And If final Score of IFE to be more Of 3 it means In terms of internal Factors total Strategy have Strength.

**Table 2:** IFE matrix about urban sustainability of structure and state metropolitan city of Mashhad

Strategic internal factors	Weight	Current status score	Weighted score	Description
W1 - an imbalance in the distribution of land uses in the metropolitan area	0.0667	5	0.333	
W2 - incompatibility between applications	0.0533	3	0.160	
W3 - Mashhad Metropolis linear growth and focus on the core of the West	0.0400	3	0.120	
W4 - Mashhad metropolitan city with a density of 90 persons per hectare density is low.	0.0533	4	0.213	
W5 - the ravages of movement and access, especially in compliance with land use and density	0.0533	3	0.160	
W6 - inequalities in socio-economic in the area of the metropolis of Mashhad (66% of revenue 1 in the Mid-West and 29% in the South West where 85% of income 5 in the northwest are inhabited. Bands income 2, 3 and 4 respectively In the mid-western region, the southwest, the northwest and central areas.)	0.0400	1	0.040	
W7 - reduced quality of life, particularly increasing and unplanned informal settlements	0.0267	2	0.053	
W8 - based on statistics provided by the Department of Environment Khorasan Razavi major cause of air pollution in the city of Mashhad motor vehicles that share on air pollution 65 percent, followed by motor vehicles, factories and manufacturing industries with 15 percent and home pollutants by 10 percent are in the next place.	0.0533	2	0.107	
W9 - the geographical location of the city of Mashhad and wind direction in which also the air pollution it adds. (Because of the wind direction in Mashhad from the southeast to the northwest (East to West). Thus, any contaminants The air in the southeastern and eastern region is directly to the northwest and west of Mashhad.)	0.0400	2	0.080	
W10 - the traffic problems of lack of coordination with the mayor, the bus system, the traffic, the Ministry of Interior, traffic systems, Astan Quds Razavi and Broadcasting (lack of coordination and cooperation between the organization)	0.0667	4	0.267	
S1 - distribution of educational centers at the level of primary and middle school in the city is proper.	0.0533	2	0.107	
S2 - distribution of medical centers (clinics) in the city is proper	0.0533	2	0.107	
S3 - the distribution of religious institutions (mosques) in the city is proper.	0.0533	2	0.107	
S4-existence multi-zone indicator with the level of performance in city and ultra-city	0.0667	3	0.200	
S5 – to be a path of a train in full track area (Malek Abad Boulevard and Ahmad Abad Boulevard)	0.0533	3	0.160	
S6 - Mashhad bus system in most of the main thoroughfares of the city street network traffic (ies).	0.0667	4	0.267	
S7 - the number of bicycle trips in metropolitan areas (around the shrine) and eastern regions to other areas (around shrine more).	0.0533	3	0.160	
S8 - in the city of Mashhad for trips less than 4 km desire of used bicycles.	0.0533	2	0.107	
S9 - to the economic situation, residents of west central areas, especially the western and southern sides, are relatively high and middle income groups.	0.0267	2	0.053	
S10 – 8.61% residents are middle-income strata Southeast.	0.0267	1	0.027	
Total	1		0.827	

Source: Authors, 2017

- EFE Matrix

EFE matrix production stages is Also like the matrix IFE With this Difference That To instead of internal Strategic Factors have been external Phrase And levels of work is exactly like that As Action of Before Matrix.

**Table 3:** EFE about urban sustainability of structure and state metropolitan city of Mashhad

External strategic factors	Weight	Current status score	Weighted score	Description
T1 - Penetration Incompatible activity With The Residential area Like car Repair shop That rather It's Effect On drop Spatial Quality creates types of Contamination Sound, Visually And environment.	0.0595	4	0.238	
T2 - Due to the climatic location The metropolis of Mashhad, in proportion to the physical growth of the city, is likely to increase the inversion, and in particular This phenomenon will be subsequent infections each year.	0.0595	5	0.298	
T3 - wind direction and temperature Due to the location of power plants, factories and industries and services could have the greatest impact on air pollution and flow in the area and the city of Mashhad.	0.0476	3	0.143	
T4 - Creating traffic flow and diminishing the social role in the Local streets and pedestrian interference in lack of design and Correctplanning	0.0476	1	0.048	
T5 - Increased willingness to use Personal vehicles and taxis (due to weaknesses in the public transportation system) and create Density in paths and extended travel time	0.0595	3	0.179	
T6 - The inadequacy of the number of urban train lines with respect to the social and Economic class residing in the area	0.0476	3	0.143	
T7 - The implementation of the traffic planning project in the central area has caused many problems Including: traffic jams Intense, wasteful Time People increase Air Contamination, increase Voice Contamination, reduction Level Service, traffic BB The procedure And more From The limit Cars Traveler personal , Damage To The Urban landscape And....	0.0357	2	0.071	
T8 - The spatial distribution of employment shows Nearly 44% of employees in the regions 1 and 2 and the remaining 56% are employed in other parts of the 15 districts in Mashhad.	0.0357	1	0.036	
T9 - Top Speed of Grow in informal Settlement	0.0476	3	0.143	
T10 - Environmental pollution due to the density of service industries, repair shops And workshops	0.0476	3	0.143	
O1 - Separation And Arranging situation The area That have Incompatible activity.	0.0595	4	0.238	
O2 - the transfer Program of (Occupations) intruders Urban User	0.0595	3	0.179	
O3 - Opportunity to supply deficiencies service in Different functional scale according to the land surface of potential	0.0476	3	0.143	
O4 - The possibility of exploiting large and incompatible spots such as barracks, Abkouh Sugar Factory and Astan Quds Gardens	0.0476	2	0.095	
O5 - Area 12 with the density of 10.3 per hectare was the lowest in the first place And areas 8 and 5, respectively, with densities of 86.9 and 93.4 in the subsequent congestion of the city Mashhad, due to the location of the city, can be a good opportunity For their future development.	0.0476	2	0.095	
O6 - The project covers the area of traffic planning in the central area of about 530 Hectares with increasing Speed Average Urban traffic From 10 km On the watch To 20 kilometers On the watch Can reduce the 40% rate CO <sub>2</sub> produce Have been By The car.	0.0357	2	0.071	
O7 - Offer integrated network Bike paths	0.0476	2	0.095	
O8 - Possibility of encouraging citizens to People's participate	0.0595	2	0.119	
O9 - According to studies Compliance Methods Supply And Demand With economic, social conditions And Urbanism and features system Carry And Quotes City of Mashhad, such as improving the notification system, expanding shipping Encouraging public transport and cycling could be one of the most effective ways. Travel demand management is in the city of Mashhad.	0.0476	1	0.048	
O10 - Measures taken by the Mashhad Environment Organization to reduce air pollution Is performed (including: Requirement a factory monitoring program Laboratory of Trusted and sent to the environmental organization, filtration of factories, outdated The old cars, technical inspection of vehicles Auctions ) Could be an opportunity to reduce air pollution.	0.0595	3	0.179	
total	1		2.702	

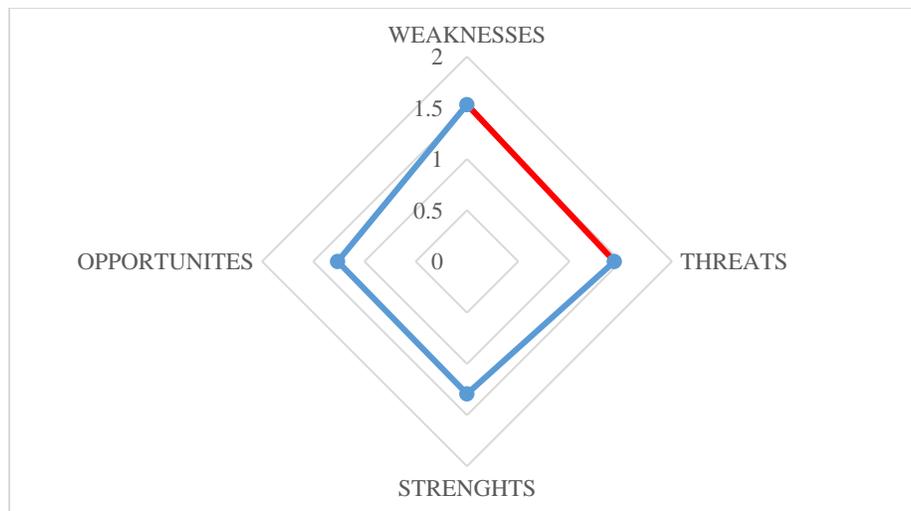
Source: Authors, 2017

internal And external Strategic Factors Matrix of environmental Structure of Metropolis of Mashhad show That the whole Weight score in Matrix Table of internal Factors is 2.83 That The result number is lower than The mean (3) That weaknesses At Achieving sustainable development of Mashhad metropolis Are Dominant On Strengths and The whole Weight score in Matrix Table of external Factors is 2.70. At here the result number is less than mean that don't use from the obtained opportunity At Direction of Overcome on Threats. And Threats are

Dominant on the opportunity. So the most important Weaknesses - W1 is an imbalance in the distribution of land uses in the metropolitan area, with a weight score of 0.333. The most important point Strengths -S6 is bus system in most of the main thoroughfares of the city street network traffic in Mashhad with a score of 0.267. the most important threat -T2 Due to the climatic location of The metropolis of Mashhad, in proportion to the physical growth of the city, is likely to increase the inversion, and in particular This phenomenon will be subsequent infections each year, with a score of 0.298 and the opportunity -O1 Separation And Arranging situation The area That have Incompatible activity With a score of 0.238.

4 -2 determined Kind of Strategy on Coordinates Axis

Position Kind of Strategy at Sustainability of Mashhad Metropolis in shape 2 has been show. Score on the X-axis is -0.24 and score on the Y-axis is -0.18 That Actually show defensive strategy At Such The situation should tried to implement WT strategies to reduce the weaknesses and avoid threats.



**Figure 2:** The Situation of Strategy in the Sustainable Development of the Metropolis of Holy Mashhad (Authors, 2017)

4 -3 compilations Strategies of SWOT

- Matrix Strategy of SWOT for Sustainable Urban Development metropolis of Mashhad:

Matrix Strategies That Basis on Comparison Internal factors (Weakness and Strength points) and external Factors (Threats and the opportunity) From Achieving sustainable urban development of the city of Mashhad in four strategies: a) aggressive strategies (SO) b) contingency strategies (ST). C) Adjustment strategies (WO). Defensive strategies (WT) plotted and strategies are presented.

- Aggressive strategies ( SO )

SO1 – Organizing land distribution in neighborhood and district scale

SO2 - managing travel distribution and energy through organizing and management of distributed applications in the city

SO3 - management and organization of passenger terminals in the metropolis of Mashhad

SO4 - promotion of qualitative and quantitative status of bus system in Mashhad metropolitan

SO5 -Upgrades per capita cycling by offering an integrated network of bicycle (from neighborhood scale to metropolitan area scale)

- Contingency strategies (ST)

ST1 - improve the quality of the urban environment through organizing use of local, regional, Regional and Urban and megalopolis scale

ST2 - reducing dependence on private cars through quantitative and qualitative improvement of public transport system

ST3 - organizing urban rail system in accordance with the socio-economic status of people living in urban areas

ST4 - reducing traffic congestion and public transport stations in close proximity public transport by offering network series Stages

ST5 - improving the quality of life through an emphasis on improving and balancing the socio-economic status of the residents of the areas of planning

- Adaptive strategies ( WO )

WO1 – organizing system of movement and access by organizing urban land use

WO2 - Organizing urban and extra-urban land use scale through a balanced distribution of applications in the areas of planning

WO3 - controlling and monitoring horizontal development of the metropolis through management of dense in urban land and use of land and dysfunction

WO4 - development of policies for public participation

WO5- Managing travel demand through the use of survey research methods of supply and demand compliance with economic, social and urban transport system characteristics metropolis of Mashhad

- Defensive strategies ( Wt )

WT1 - emphasis on urban land use planning system in order to improve compatibility between applications

WT2 - organizing and refining activities and transfer of centers of pollutants to outside the city limits (in the opposite direction of the prevailing winds)

WT3 - organizing and avoid physical growth of the city and construction in the privacy of surface water, groundwater and agricultural land

WT4 – organizing management system and inter-agency coordination and cooperation

WT5 – attention and insistence on the issue of marginalization and control the rapid growth of this problem in the western border to the eastern metropolis of Mashhad

## **5. Discussion & Conclusion**

Cities can be used as engines to move towards sustainable development, and management of this complex system requires innovative and complex planning tools. Nam and Pardon (2012) suggest that rather than be independent programs, the government must provide conditions that existing planning tools have been connected with each other mutually overlap. (Jabareen, 2006) internal And external Strategic Factors Matrix of environmental Structure of Metropolis of Mashhad show That the whole Weight score in Matrix Table of internal Factors is 2.83 That The result number is lower than The mean (3) That weaknesses At Achieving sustainable development of Mashhad metropolis Are Dominant On Strengths and The whole Weight score in

Matrix Table of external Factors is 2.70. At here the result number is less than mean that don't use from the obtained opportunity At Direction of Overcome on Threats. And Threats are Dominant on the opportunity. According to the results, we can say with a very small difference matrix of external factors are in a better position than internal factors. According to research findings in such the situation should Tried to Implementation of WT Strategies to reduce the weaknesses and avoid threats.

**Table 4:** Prioritize strategies

The final score	prioritize	Proposed Strategies for Achieving Sustainable Urban Development in Mashhad Metropolis
8.667	1	WT4 - organizing management system and inter-agency coordination and cooperation
6.667	2	WO1 - organized system of movement and access by organizing urban land use
6.321	3	ST1 - improve the quality of the urban environment through organizing use of local, regional, Regional and Urban and megalopolis scale
5.881	4	WO4 - development of policies for public participation
5.774	5	WO2 - Organizing urban and extra-urban land use scale through a balanced distribution of applications in the areas of planning
5.607	6	WT1 - emphasis on urban land use planning system in order to improve compatibility between applications
5.600	7	WT3 - Accounting and avoid physical growth of the city and construction in the privacy of surface water, groundwater and agricultural land and orchard
5.345	8	WT2 - organizing and refining activities and transfer of centers of pollutants to outside the city limits (in the opposite direction of the prevailing winds)
5.321	9	WO5- Managing travel demand through the use of survey research methods of supply and demand compliance with economic, social and urban transport system characteristics metropolis of Mashhad
5.160	10	SO1 - Organizing land distribution in neighborhood and district scale
5.048	11	SO2 - managing travel distribution and energy through organizing and management of distributed applications in the city
4.853	12	ST4 - reducing traffic congestion and public transport stations in close proximity by offering public transport network hierarchy
4.427	13	ST2 - reducing dependence on private cars through quantitative and qualitative improvement of public transport system
4.238	14	WO3 - controlling and monitoring horizontal development of the metropolis through dense urban land management and use of land and dysfunction
4.147	15	SO4 - promotion of qualitative and quantitative status of Mashhad metropolitan bus system
4.000	16th	SO5 -Upgrades per capita cycling by offering an integrated network of bicycle (from scale to scale neighborhood metropolitan area)
3.952	17	WT3 - Accounting and avoid physical growth of the city and construction in the privacy of surface water, groundwater and agricultural land and orchard
3.880	18	WO3 - controlling and monitoring horizontal development of the metropolis through management of dense in urban land and use of land and dysfunction
3.619	19th	ST5 - improving the quality of life through an emphasis on improving and balancing the socio-economic status of the residents of the areas of planning
3.583	20	ST3 - organizing urban rail system in accordance with the socio-economic status of people living in urban areas

Source: Authors, 2017

At Relation With review of Urban Sustainability Structure and situation, Mashhad Metropolis shows Inefficiency management and lack of cooperation between the organizations. What shape the donor this situation is kind of Scattered and inconsistent management with Different Strategy and lack of united management in Metropolis of Holy Mashhad. But Strategies That Has been

result From Matrix QSPM for Exit the current unstable situation in the metropolis of Mashhad and move sustainable Urban Development priority Respectively (Basis On final point) suggested as Following:

1. Organizing management system and inter-agency coordination and cooperation
2. Organizing the system of movement and access through the management of urban land use
3. Promoting the quality of the urban environment through organizing use of local, regional, Regional and Urban and megalopolis scale

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