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To cite this article: Reza Shabanzadeh Namini, Mirella Loda & Abolfazl Meshkini (2021) SWOT Analysis and Developing Strategies for the Realisation of Urban Livability in Tehran, International Journal of Urban Sustainable Development, 13:1, 117-129, DOI: [10.1080/19463138.2020.1827412](https://doi.org/10.1080/19463138.2020.1827412)

To link to this article: <https://doi.org/10.1080/19463138.2020.1827412>



Published online: 27 Oct 2020.



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ARTICLE



SWOT Analysis and Developing Strategies for the Realisation of Urban Livability in Tehran

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ABSTRACT

The present study aims to analyse the strengths, weaknesses, opportunities and threats (SWOT) of managing the Tehran Metropolitan to help comprehend the status quo as well as the challenges to the realisation of liveability indicators. The data were collected from numerous sources including literature review, library resources, public reports, interviews with urban executives and urban management experts, and questionnaires. The study opens a new window through which the main stakeholders and urban managers can understand the internal and external conditions of urban management as well as the challenges to liveability in the city. Seven critical strategies based on SWOT identification are presented with an emphasis on research results. Such strategies can promote the realisation of liveability and inform the future development of the city on a strategic level.

ARTICLE HISTORY

Received 25 November 2019
Accepted 20 September 2020

KEYWORDS

SWOT analysis; strategy; liveability; Tehran metropolis; urban management; municipality

1. Introduction

The concept of liveability consists of various indicators such as physical, economic and socio-cultural aspects of urban areas, which make the city attractive as a place for living (The Economist Intelligence Unit 2011; Miller et al. 2013; Kotus and Rzeszewski 2013; Zhan et al. 2018, Cities Plus 2003). Planners and policymakers concerned with creating or maintaining livable cities have long invoked 'livability' as a guiding principle for the investment and decision-making that shape the urban social, economic, physical and biological environment (Ruth et al, 2014). Therefore, liveability implies that the realisation of all indicators requires the adoption of an integrated approach to urban management (van Dijk 2006). The essence of integrated urban management is that the local authorities should focus on the major issues identified by the citizens and pay attention to the most important problems. Since the main objective of urban management is to create a livable environment along with social justice, economic efficiency and environmental sustainability, urban management intends to create a city

through the cooperation and the contribution of public and private sectors to the resolution of problems encountered by residents (Timmer Vanessa and nola-Kate seymoar 2005; Wong et al. 2006; The World Bank 2009; Arefi 2013; Kashef 2016). In addition, urban management seeks strategies that include coherent and long-term policies promoting coordination at various levels of administration as well as the optimal use of resources (UN-Habitat Policy 2016). In this regard, the realisation of liveability indicators requires attention to various economic, social, environmental and physical dimensions as well as an integrated view of urban management in order to coordinate decisions to prevent parallel work on urban issues and to provide appropriate services (Bhaskara 2015).

Currently, Tehran is facing various economic, social and environmental problems (Roshan et al. 2009; Ali Akbari and Akbari 2017). Residents suffer from environmental issues and air pollution. Traffic wastes a lot of their time. Cultural and social issues are major challenges along with the lack of financial transparency in the municipality and the lack of urban infrastructures. The quality of life has declined as a result (Lalehpour 2016).

A variety of activities and businesses have concentrated in Tehran. The city is not only an important political centre playing a key role at national and regional levels but also the economic and demographic hub for the whole country (Ghasemi et al. 2018). However, for decades urban policies have focused on short-term management while neglecting the long-term future of the city (Shabanzadeh Namini et al. 2019). The contribution of Tehran municipality to urban management is limited and the lack of integrated management and sustainable financial resources has led to disruptions and imbalances in supply and demand regarding urban services. Numerous urban affairs, which are supposed to be managed by the municipality, are currently managed by other organisations. Consequently, urban resources are squandered and services are not provided in an organised and appropriate manner.

Residents have no or limited participation in urban administration and decision-making. The lack of specialised staff and managers in the municipality has led to confusion in decision-making and the adoption of an inappropriate model of urban management. Such shortcomings have resulted in inefficiencies in the areas of transportation, housing, health, education, energy, public services, etc. Consequently, the realisation of urban liveability indicators in Tehran has encountered serious obstacles (Pourahmad et al. 2015).

The concept of 'livability' in the Tehran metropolitan should be investigated in the context of such issues. The present study aims to explore the strengths, weaknesses, opportunities and threats of urban management in realising the indicators of a livable city and to select and present appropriate strategies depending on the challenges faced by urban management in the Tehran Metropolis.

2. Literature review

2.1. Liveability

The definition of liveability covers many issues such as participation, justice, flexibility, inclusion and accessibility. According to CABE (CABE 2007), Liveability is defined as, the degree to which a place, whether it is a town or city realises the quality of life, health and wellbeing for the people who live, work or visit. Therefore, liveability defined as the creation of interaction between social, economic, health, and environmental conditions that affect human and social wellbeing (Atef Elsayw et al. 2019). Regarding the concept of liveability, there are

widespread debates that indicate the urban liveability is achieved through solving social (poverty, class differences, etc.), economic (unemployment, etc.), and environmental problems (reduction of pollution, landscape, etc.). The quality of citizens' life depends on the amount of access to infrastructure (transport, communications, water and health), food, clean air, adequate housing, satisfactory jobs, green spaces and parks. Residence liveability also depends on the access of its residents to participate in the decision-making process to meet their needs. In general, the principles of liveability are to describe different strategies in different fields, including social, environmental and economic fields, to achieve sustainability goals in the urban community. Livable communities increase opportunities for every resident to make healthy choices (Connecticut's Legislative Commission on Aging 2014). Liveability is a multi-dimensional and hierarchical concept which consists of various criteria and sub-criteria and may be formed at different levels. As discussed in the theoretical discussions, the components and indicators for the measurement of liveability are diverse due to the variety of approaches in the field. Here are some indicators issued by various institutions and researchers:

2.2. Integrated urban management

Integrated Urban management is a comparatively new issue, which has gained increasing importance due to a rise in urbanisation and a trend of decentralisation programmes in recent decades. Integrated Urban management is the effort to coordinate and integrate public as well as private actions to challenge the major problems residents of cities are facing in an integrated way, to make a more competitive, equitable and sustainable city' or the process of implementation, coordination, and evaluation of integrated strategies to assist municipal authorities, concerning the private sector and citizens to realise sustainable development (van Dijk 2008). A key element of this definition is that urban issues are related to each other:

- (1) An integrated approach should consider all of these issues together.
- (2) If some issues are related to each other, the solutions proposed should also be integrated.
- (3) The urban manager implements the solution after consulting with all the stakeholders (van Dijk 2008).

The term 'integrated' is well-known today and describes all phenomena of sustainable development and management. Integration represents the basic procedural theme, which means that all policies, projects, and proposals should be observed in conjunction with each other. The synergy between the elements should be regulated with regards to the desired overall impact that should be stronger as a whole than realised through individual elements being implemented in isolation. Integrated urban management is a modern management approach close associated with the complex nature of the cities and the necessity of creating sustainable and Livable settlements. (Milojevic 2018). Thus, The main objective of Integrated urban management is to create a livable environment along with social justice, economic efficiency and environmental sustainability. By thoughtfully employing elements of integrative management in the decision-making process, decision-makers can focus their attention on identifying the real current and foreseeable future needs of the community and channel their efforts towards satisfying these needs through the physical development of the city and the reordering and rectification of urban space (El-Deen Abukhater 2009). Integrated management also includes the defining the appropriate methodology in the planning process and the involvement of public participation and stakeholders in the process of urban planning and management that requires the necessary knowledge and skills. The creation of appropriate regulations and policies in the field of socio-economic and ecological conditions, such as system organisation at the international, national and local levels, are prerequisites for the realisation of integrated management in practice (Schaber et al. 2016). The implementation of integrated urban management is based on an integrated development concept at the overall urban level. The following elements are particularly important:

- (1) Identifying the strengths and weaknesses of the city and particular neighbourhoods.
- (2) Formulating realistic goals (for particular areas).
- (3) Increasing the effect of public measures through early coordination and pooling of public and private funds at the area or neighbourhood level.
- (4) Integrating planning for particular areas, sectors and technical support.

- (5) Empowering citizens and encouraging corporate social responsibility.
- (6) Supporting inter-municipal coordination to harmonise the development aims of the city with its surrounding areas (The German EU Council Presidency 2007).

An integrated urban management policy understood in this way is a suitable instrument not only for promoting strong urban neighbourhoods. It also curbs socio-spatial exclusion trends and capitalises on the potential of disadvantaged individuals and neighbourhoods to help achieve social and spatial integration (Ibid). Thus, it can be concluded that integrated urban management is the first step towards a Livable city. Because without integration, urban management measures will not be effective.

2.3. Participation

Participation can be defined as conditions that provide opportunities for citizens to participate in government decision-making or the planning process (Mohammadi 2010). The enhancement of citizens' participation in decision-making is generally understood as an essential characteristic of governance for sustainable development. For example, agenda 21, described 'comprehensive citizens' participation in decision-making' as a 'fundamental precondition for the achievement of sustainable development' (Elgar 2004). The term 'participation' mentions to the involvement and collecting for a specific cause; basically, it is about involvement, working and affecting. By acknowledging the essence, experts of management have defined participation as: the mental and emotional involvement of individuals in group-based situations to cooperate for achieving group goals and sharing the responsibility (Hosseini et al. 2017). Thus, Participation can be measured by considering the specific task, activity and user behaviour shown during the system development process. Participation can affect user attitudes. Over participation, users can influence the design of the new system and adapt to their needs (Lusida Amir et al. 2015). Citizen involvement in policymaking enables municipal authorities to utilise wider sources of information, opinion and potential solutions and improve the quality of decisions (van den Dool et al. 2015). Citizen participation, however, is a challenge that goes well beyond the simple selection of the most appropriate tools and

methods. A key issue for successful citizen participation in the design of a well-integrated work process. A good participation process is achieved when effective tools and methods are arranged in a dynamic yet decisive process (Stelzle and Rainer Noennig 2017). With people participation, inhabitants are actively involved in the development process, thus, there will be a better maintained physical environment, greater public life, more user satisfaction, significant financial saving, confidence in organisations (Mahdaveinejad and Amini 2011).

2.4. Sustainable sources of revenue

The challenge for local governments is to keep cities economically livable by providing a high level of services. Local governments make expenditures on a variety of services containing transportation, policing, fire protection, water and sewers, waste collection and disposal, housing, health, recreation and culture, education, and social expenditures. They fund these services and the infrastructure associated with them from a variety of sources (UN-HABITAT 2009). Therefore, they must be creative about finding sources of income and rationalising their costs. Because many cities in the developing world continue to rely on transfers and donations and are making great efforts to reduce this dependence on the central government (UN-HABITAT 2015). Besides, scholars have proposed different criteria and strategies for municipal revenue sources. Experience from different countries shows that the most important sources of municipal finance are taxes and government assistance to local governments, local facilities and equipment, and ultimately borrowing (UN-HABITAT 2009). Therefore, financing and municipal revenue will be of particular importance in achieving a sustainable and livable city, because on the one hand, municipal income has a major impact on the provision of services to citizens and the other hand lack of sufficient income will not only slow down the essential services in the city but also will fundamentally hamper the implementation of all urban plans.

3. Materials and methods

3.1. Study area

Tehran, the capital of Iran and Tehran province, is the centre of the national government as well as

commercial, financial, cultural and educational activities in Iran. Tehran is located on the southern slopes of the Alborz mountain range. The average height of the city is 1200 metres above sea level (Shahbazi et al. 2016). Tehran has a total area of 613 square kilometres and is divided into 22 administrative districts (Figure 1). (Amini et al. 2017; Ghasemi et al. 2018). District 4 is the most populated district with a population of 917,261 and district 9 with a population of 175,115 is the least populated district of Tehran (Table 2) (The detailed plan of Tehran's districts, 2017). Urbanisation has accelerated in the metropolitan area of Tehran over the past 30 years, and the population of its inhabitants is estimated at over 8.5 million people. Given that during the day many people commute to the city to work or to use services, the population of the city reaches 12 million during the day.

3.2. Research method

The data was collected in two stages. Initially, the data were collected and categorised using documentary studies (books, journals) and by interviewing executives active in the field of urban management and professors active in the field of urban services (Table 1). This study used the SWOT analysis approach as a strategic planning approach to indicate strategies for realisation of urban liveability in Tehran. It provides information that helps identify key internal and external factors that are important to achieve the objective in question. In the SWOT analyses, strengths or weaknesses are classified as internal parameters while opportunities and threats are classified as external situational parameters. SWOT analysis has been helpful in many industries such as business, education, healthcare, and urban and land use planning (Kazemi et al. 2018). Once the data were categorised according to the strengths, weaknesses, opportunities, and threats, it was presented to the experts and managers for evaluation. The data with the highest score was used in the main questionnaire. Since the data and questions were specialised, the main questionnaires were distributed among three groups: (1) professors who were aware of the topic of the research and had experience in this area; (2) Tehran municipality staff; and (3) the executives of Tehran municipality. An in-person method was employed to deliver the questionnaires because this method has a higher response rate in comparison with posting the questionnaires (Reihanian et al. 2012). A likert scale

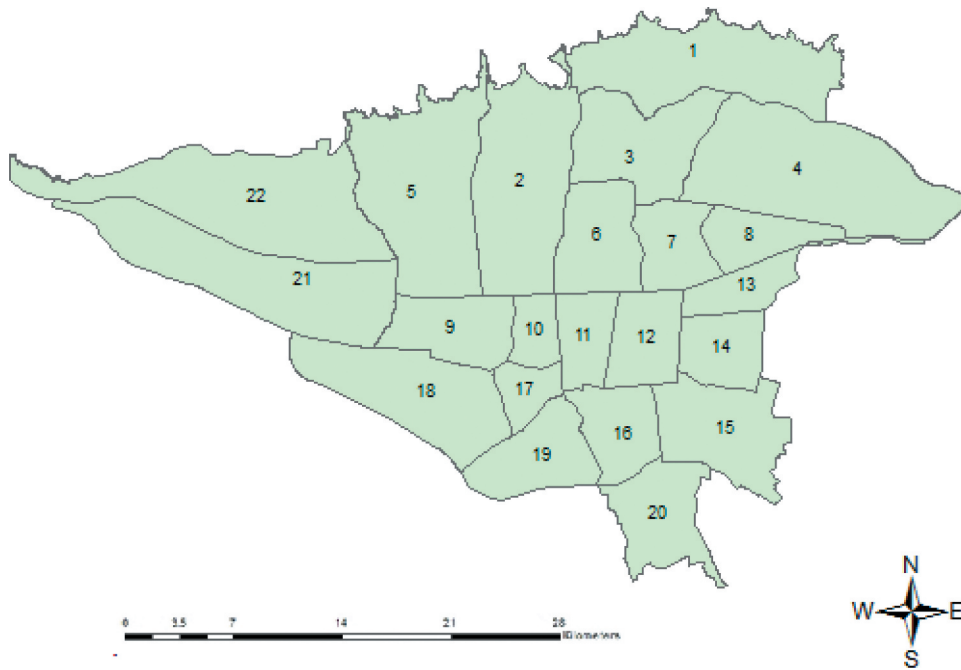


Figure 1. The location of the districts of Tehran.

was used to score the questionnaires. The scale consists of a set of questions or statements related to the attitude of the respondents towards the questions. The respondents should indicate the extent to which they agree or disagree with a certain statement. The answers are in the form of a numerical point that reflects the attitude of the respondent towards each question. The total score for each questionnaire is obtained through summing up the all the scores. The final measurement depends on the percentage of each indicator (Kinnear and Taylor 1995).

3.3. SWOT analysis

SWOT analysis as a management tool that helps enhances the functions of a system and ensures the achievement of the predetermined goals (Bryson 2011). SWOT analysis, which includes the four components of strengths, weaknesses, opportunities and threats (Phadermrod et al. 2018), is frequently employed systematically evaluate a decision, plan or instruction (Reihanian et al. 2012). SWOT analysis is widely used for strategic planning of the long-term and short-term development of an organisation. The main purpose of strategic planning is to maintain the

balance of the organisation to any changes in the environment and to maintain the stability of the organisation to be able to survive all over time (Thamrin and Wahyu Pamungkas 2017). This method is based on a two-stage analysis performed separately: strengths (S) and weaknesses (W) are internal (controllable) factors that help organisations accomplish, or prevent them from accomplishing, their missions. Nevertheless, opportunities (O) and threats (T) are external (undeniable) factors that allow organisations to achieve, or prevent them from achieving, their missions. By identifying the factors of these four components, one can perform evaluations for decision-making, planning and, formulating regulations (Dyson 2004). A list of strengths and weaknesses as well as a list of opportunities and threats were formulated accordingly. The first two factors (S-W) were listed in the Internal Factor Evaluation Matrix (IFEM) while the two second factors (O-T) were listed in the External Factor Evaluation Matrix (EFEM).

The factors were scored as follows:

- (1) First, in order to evaluate the external and the internal environment, the factors affecting the internal environment, including the strengths

Table 1. The criteria selected by some researchers and institutions.

Dimensions	Criteria	Reference
Economic	Employment	(Peter Evans in 2002), (Sanford, 2013), (Connecticut's Legislative Commission on Aging 2014), (Maghsoodi Tilaki et al, 2014), (Van Asche et al, 2010), (Sobhey Abdelbaset, 2015), (Mitchell, 2005), (Cedar hill municipality, 2008), (US, EPA, 2010), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
	Housing	(Sanford, 2013), (AARP, 2011), (Connecticut's Legislative Commission on Aging 2014), (Maghsoodi Tilaki et al, 2014), (Sobhey Abdelbaset, 2015), (Howley et al, 2009), (MetLife, 2013), (Larice, 2005), (Wheeler, 2001), (Cedar hill municipality, 2008), (Ottawa county planning commission, 2004), (NCTCOG,2011), (Fabish, 2010), (Elysia Loewus, 2008), (Forum for the Future, 2010), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
	Transportation	(Timmer Vanessa and nola- Kate seymoar 2005), (D. Hahlweg in 1997), (Sanford, 2013), (Connecticut's Legislative Commission on Aging 2014), (Maghsoodi Tilaki et al, 2014), (Sobhey Abdelbaset, 2015), (Pierson et al, 2010), (MetLife, 2013), (Perogordo, Madrid, 2007), (US, EPA, 2010), (NCTCOG,2011), (Fabish, 2010), (Miller et al. 2013), (Forum for the Future, 2010), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
	Facilities	(Jalaladdini & Oktay, 2012), (D. Hahlweg in 1997), (E. Salzano in 1997), (Sobhey Abdelbaset, 2015), (MetLife, 2013), (MetLife, 2013), (Wheeler, 2001), (Cedar hill municipality, 2008), (Dempsey, 2012), (Fabish, 2010), (Elysia Loewus, 2008), (Miller et al. 2013), (Forum for the Future, 2010), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
Social	Education	(Sobhey Abdelbaset, 2015), (Brittne, 2009), (Vergunst, 2003), (Fabish, 2010), (Elysia Loewus, 2008), (Miller et al. 2013), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
	Security	(Maghsoodi Tilaki et al, 2014), (Shammi Akter, 2014), (H,L, Lennard. 1997), (Sobhey Abdelbaset, 2015), (Baslas, 2004), (MetLife, 2013), (Larice, 2005), (Perogordo, Madrid, 2007), (Ottawa county planning commission, 2004), (NCTCOG,2011), (Elysia Loewus, 2008), (The World Bank, 1996),
	Participation	(D. Hahlweg in 1997), (Sanford, 2013), (AARP, 2011), (Van Asche et al, 2010), (Timmer and Seymoar, 2005), (Sobhey Abdelbaset, 2015), (Thorsby, 2005), (MetLife, 2013), (Fabish, 2010), (Elysia Loewus, 2008), (Miller e al, 2013), (The World Bank, 1996),
	Health	(Connecticut's Legislative Commission on Aging 2014), (Sobhey Abdelbaset, 2015), (Shepherd et al, 2009), (MetLife, 2013), (US, EPA, 2010), (Elysia Loewus, 2008), (Miller et al. 2013), (Forum for the Future, 2010), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
	Leisure	(Sanford, 2013), (H,L, Lennard. 1997), (Sobhey Abdelbaset, 2015), (Litman, 2004), (MetLife, 2013), (US, EPA, 2010), (Fabish, 2010), (Elysia Loewus, 2008), (Miller et al. 2013), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
Environmental	Green spaces	(Timmer and Seymoar, 2005), (Sobhey Abdelbaset, 2015), (Wheller, 2001), (MetLife, 2013), (Wheeler, 2001), (Ottawa county planning commission, 2004), (US, EPA, 2010), (VCEC, 2008), (Fabish, 2010), (Elysia Loewus, 2008), (Miller et al. 2013), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)
	Good urban landscape	(Timmer Vanessa and nola- Kate seymoar 2005), (H,L, Lennard. 1997), (Sobhey Abdelbaset, 2015), (Townsand, 1999), (Ottawa county planning commission, 2004), (Miess, 1990), (Fabish, 2010), (Elysia Loewus, 2008), (Miller et al. 2013), (The World Bank, 1996),
	Pollution	(Sanford, 2013), (Shammi Akter, 2014), (Van Asche et al, 2010), (Flynn et al. 2002), (Sobhey Abdelbaset, 2015), (Thorsby, 2005), (Larice, 2005), (Wheeler, 2001), (Cedar hill municipality, 2008), (Asian Development Bank, 2014), (A Report by the Land and Water Resources Council, 2002), (Fabish, 2010), (Elysia Loewus, 2008), (Forum for the Future, 2010), (The World Bank, 1996), (Economist Intelligence Unit; EIU, 2018)

and weaknesses, and the key factors affecting the external environment, including significant opportunities and threats, were identified and scored. The sum of internal or external factors should not be greater than one. A coefficient ranging from 0 to 1, which indicates 'unimportant' and 'important', respectively, is assigned to each factor. This coefficient indicates the relative importance of the factor in the rate of success and is indicated by the expression 'weight in IFEM'.

- (2) In the next step, a score from 1 to 4 was assigned to each factor. Score 1 indicates

a substantial weakness, score 2 indicates a minor weakness while score 3 indicates strength and score 4 indicates great strength.

- (3) To determine the total score of each item, its weight was multiplied by its score.
- (4) Once collected, the total scores were summed up to calculate the final score of IFEM.
- (5) If this value is less than 2.5, it means that the strong points have been less than the weak points. If it is more than 2.5, the strong points are more than the weaknesses.
- (6) The stages were repeated for EFEM. If the value is less than 2.5, it means that the opportunities

Table 2. The population of Tehran.

District	Population	Men	Women	Area (HK)
1	493,889	241,805	252,084	2769.48
2	692,579	338,136	354,443	2582.63
3	330,004	158,054	171,950	1665.24
4	917,261	456,394	460,867	3882.06
5	856,565	420,431	436,134	2627.83
6	250,753	122,804	127,949	1183.60
7	312,002	151,882	160,120	982.39
8	425,044	208,284	216,760	732.03
9	175,115	88,092	86,023	1442.12
10	326,885	162,035	164,850	512.07
11	308,176	154,516	153,660	671.76
12	240,909	122,121	118,788	1003.68
13	253,054	125,617	127,437	694.09
14	489,101	244,500	244,601	816.17
15	659,468	335,314	324,154	1461.95
16	267,678	134,250	133,428	804.35
17	278,354	140,131	138,223	455.21
18	419,249	213,518	205,731	1658.98
19	255,533	130,203	125,330	727.04
20	367,600	184,224	183,376	784.96
21	186,319	93,739	92,580	3218.02
22	175,398	89,146	86,252	2891.43
Tehran	8,679,936	4,315,196	4,364,740	33,567.09

are less than the threats. If the value is more than 2.5, the opportunities are more than threats (Reihanian et al. 2012).

4. Results

Once the initial data was collected, SWOT analysis was conducted to assess the key factors affecting liveability based on internal factors (in terms of strengths and

weaknesses) and external factors (in terms of opportunities and threats). Regarding strengths, there are seven factors. The efforts of managers to coordinate the agencies involved in urban management, the growth of public awareness and an increasing demand for residentship rights, encouraging employees to upgrade their specialised knowledge and delegating parts of urban services to the private sector gained the highest weight. Reinforcing neighbourhood councils to discuss local needs and problems gained the lowest weight. The effectiveness score was between 3 and 4. In relation to the weaknesses, there were 10 factors with a weight of 0.064–0.056. The effectiveness score was from 1 to 2. Ultimately, the final score was 1.997. Table 3 shows a summary of the trend and the results of the internal factor analysis.

There were 11 factors concerning the opportunities. The highest weight (0.058) was assigned to private and public sector participation in infrastructure provision while the lowest weight (0.047) was allocated to the networking factor in order to achieve social, economic and environmental development. The effectiveness score was 3–4. With regards to threats, there were nine factors. The highest weight (0.048) was allocated to the lack of long-term goals among those responsible for urban affairs and a low level of collective commitment among agencies (jointly 0.043). The lowest weight (0.043) was assigned to the cynical view of the agencies towards each other and the prioritisation of the interests of their own organisation over the common good. The

Table 3. Internal factor estimate matrix (IFEM).

Strengths	Weight	Effectiveness score	Final score
Encouraging the employees to improve their specialised knowledge	0.059	3	0.178
Existence of a moderate amount of specialist workforce	0.055	3	0.167
A growth in general awareness and demand by residents	0.060	4	0.242
Reinforcing neighbourhood councils to discuss local needs and problems	0.035	4	0.141
Delegating part of urban services to the private sector	0.059	4	0.238
The efforts of managers to coordinate the agencies involved in urban management	0.063	3	0.190
Relative awareness of the issues and problems surrounding municipalities	0.057	3	0.172
Weaknesses	Weight	Effectiveness score	Final score
Lack of coordination among organisations in approving plans	0.060	1	0.060
Lack of proper mechanisms for residents to express their demands	0.058	1	0.058
Lack of resident contribution to non-governmental organisations (NGOs)	0.062	1	0.062
Absence of an accountable management	0.064	1	0.064
Lack of a sense of collective identity among employees	0.058	2	0.116
Lack of appropriate tools for residents to monitor urban plans	0.064	1	0.064
Lack of expertise among the majority of municipal staff regarding urban issues	0.057	1	0.057
Insufficient budget for the municipality to implement projects	0.063	1	0.063
Multiplicity of decision-making and executive agencies	0.061	1	0.061
An abstract attitude towards the municipal revenue system	0.056	1	0.056
Total	1	-	1.997

Source: Research findings

effectiveness score was 1–2 and the final score was 2.698. The results of this stage are presented in Table 4.

Accordingly, the value of internal factors (strengths and weaknesses) is 1.997, which is less than 2.5. The weaknesses are therefore greater than the strengths. The value of external factors (opportunities and threats) is 2.698, which is more than 2.5. The opportunities are therefore greater than the threats. Thus, the sum of the factors of weaknesses and opportunities should be incorporated in the presentation of final strategies. W-O strategies are used to reduce weaknesses and maximise the use of existing opportunities. In the following, Six strategies are presented to facilitate the realisation of liveability through a combined comparison of factors.

4.1. Strategy 1: providing municipalities with mechanisms to identify sustainable sources of revenue

Municipal finance involves various complications. On the one hand, city authorities must obtain their revenue from the city and its residents. On the other hand, sources of revenue must not threaten

sustainable development or the welfare of future generations. Sources of revenue generally include taxes, user fees, intergovernmental transfers, investments, loans, etc. (UN-HABITAT 2009). For Example, local governments in France, Italy, and Turkey rely fairly heavily on other local taxes, mainly on businesses. In Austria, Italy, Japan, Korea, Portugal, Spain and some states in the United States, municipal governments have a wide range of taxation powers at their disposal. A small amount of the budget for Tehran Municipality is provided by sustainable sources, and the majority of sources rely on a variety of unsustainable methods such as excessive municipal charges on Floor area ratio (FAR) and land use change, the sale of municipal properties, and fines for building violations. As a result, according to the research and authorities, more than 80% of the revenue of Tehran municipality is generated by unsustainable sources. Unfortunately, city authorities do not perceive the necessity to identify effective and sustainable sources of revenue that secure long-term benefits (Tarfee 2016). Therefore, Tehran municipality should consider sustainable sources of revenue in order to serve the resident effectively.

Table 4. External factor estimate matrix (EFEM).

	Weight	Effectiveness score	Final score
Opportunities			
Coordination between decision-making bodies concerning urban affairs	0.052	4	0.209
Making goals, plans, and financial statements accessible by the residents	0.052	4	0.209
Coherence among managers and employees	0.049	3	0.148
Delegation of power to local agencies	0.054	3	0.163
A local and responsive management	0.053	4	0.214
Networking to promote social, economic and environmental development	0.047	3	0.142
Holding training sessions to create the required potential for residents participation	0.051	4	0.207
The existence of the knowledge required for innovation in the system	0.053	4	0.212
The possibility of providing incentives for the residents to pay taxes	0.056	4	0.226
Charging the cost of service as a local source of revenue	0.056	4	0.224
The participation of private and public sectors in providing infrastructure	0.058	4	0.232
Threats			
	Weight	Effectiveness score	Final score
Generating revenue from sustainable resources	0.047	1	0.047
Lack of opportunities for residents to effectively criticise laws and regulations	0.045	2	0.091
Lack of long-term goals in the organisations responsible for urban affairs	0.048	1	0.048
Low levels of collective commitment among agencies	0.048	2	0.097
Low levels of communication and cooperation among responsible bodies regarding decisions and measures	0.044	1	0.044
The cynical view of the agencies towards each other and the prioritisation of the interests of their own organisation over the common good	0.043	1	0.043
Lack of aligned goals and visions	0.047	1	0.047
Lack of powerful local bodies	0.044	1	0.044
Lack of knowledge by urban authorities on overt and covert areas and the problems of the city	0.045	1	0.045
Total	1	-	2.698

Resource: Research findings

4.2. Strategy 2: promoting stakeholder participation (private and public) in decision-making and designing and holding training courses for residents in order to increase their knowledge as well as their tendency to participate in urban affairs

Participation is a requirement of modern urban living. The concept of participation refers to the groups of individuals and organisations involved in decision-making (Bhaskara 2015). Participation enables residents to play an effective role in planning and decision-making while enhancing the level of their social and political power (Mohammadi 2010). In this framework, the participation of all stakeholders in the management of cities serves various functions, including increasing access to urban information, determining the directions of urban development, identifying the priorities and needs of residents, and promoting collective efforts to implement a city development project. The process of involvement provides residents with appropriate conditions and opportunities to participate in public decision-making and the planning process. An example of a public-private participation in Beijing concerns the environmental impacts of the Yuanmingyuan Water Retaining Project (the Old Summer Palaces Lake). Local stakeholders were informed and invited to give their opinions and to express their concerns with respect to works that had been undertaken to diminish the water losses from the Old Summer Palaces Lake. People were concerned about the environmental impact of putting an impermeable membrane on the bottom of the lake (Enserink and Koppenjan 2007). However, the participation of Tehran residents in the affairs of their city is at a very low level. This lack of participation is due, at least in part, to the fact that residents are not aware of the role they can play in the administration of their city. From this perspective, holding courses and training sessions for residents in order to increase their knowledge of urban issues such as traffic, housing, leisure time activities, and the proper utilisation of the residents' capabilities within the framework of participatory plans will be useful in managing the city and promoting liveability. Various educational programs help increase participation capabilities and strengthen working relationships between

governmental and non-governmental organisations. Capacity building occurs through organising training sessions, collaborating on how to achieve goals, increasing the spirit of participation and role taking by local communities, involving all actors in the implementation of plans.

4.3. Strategy 3: an integrated, coordinated and responsive management model

Meeting the needs of residents in metropolitan cities demands an integrated and coordinated approach to management. The participation of all public and private organisations leads to a constructive balance while inhibiting parallel work, the loss of limited resources, and delays in the implementation of urban plans. Coordination between organisational systems makes it possible to integrate activities across the borders of different organisations (Van de Ven et al. 1976). The global consideration of these issues through the institutions of the United Nations represents the highest level of an integrated approach to Urban Management issues. The New Urban Agenda promotes an integrated approach that aims to balance short-term needs with the long-term desired outcomes of a competitive economy, high quality of life and a sustainable environment (UN-Habitat 2016). Instead, in Iran, urban management suffers from low levels of coordination and accountability. The wide range of residents' needs, on the one hand, and the dispersion and disorientation of urban service providers along with different and sometimes conflicting policies and lack of accountability, on the other hand, has led to a lack of coordination between service providers. This lack of coordination and the faulty cycle of administration has reduced the effectiveness of policies. Therefore, an integrated and coordinated approach to urban management with local supervision and policymaking with the municipality and relevant bodies at the centre should be employed in order to provide guidelines for formulating municipal policies.

4.4. Strategy 4: the delegation of authority to local institutions

Local institutions are governmental bodies with closer ties to residents that allow the residents to participate directly in decision-making (Gamper and Palermo

2011). Local institutions play an important role not only in promoting democratic values but also in accelerating the process of development (Sikander 2015). Decision-making at a local level helps enhance administration and promote resident participation. Collective action leads to development in physical, environmental, social, economic and cultural areas (Phillips and Pittman 2009).

4.5. Strategy 5: organising and strengthening the role of NGOs in the formulation of municipal plans and budgeting

Individuals, families, groups, organisations and bodies can play an effective role in proposing urban development plans as well as budgeting for city administration. Public participation in urban planning and management can help solve numerous urban problems and achieve a more profound understanding of the needs of residents. In the Tehran administration system, residents are not involved in the formulation, supervision, or implementation of plans. They do not enjoy the right to protest and the information flow is mostly one-way. In addition, the municipal budget for the provision of urban services and development is approved without the participation of residents or the consideration of their needs.

4.6. Strategy 6: promoting the knowledge and expertise of employees and managers as well as creating mechanisms for attracting experts and employees based on the competency and expertise principle

There has been a labour surplus in the municipality of Tehran recently. Nevertheless, the municipality of Tehran suffers from a shortage of specialised staff. The current staff has been employed by the municipality despite lacking the qualifications for working in the field of municipal services and merely due to widespread corruption in this organisation. As a result, the majority of the municipality's revenues is spent on paying salaries to such employees. This shortage of specialised staff in the field of urban management and administration has reduced liveability. It has also led to confusion in urban management and the adoption of an appropriate model in administering the city.

Since the most vital asset of any organisation is human resources, the municipality of Tehran should,

therefore, consider increasing staff quality and capacity. The World Bank has pointed to the need for capacity building and staff training in the municipality (The World Bank 2009).

5. Conclusion

This research investigates the strengths, weaknesses, opportunities, and threats concerning the realisation of liveability in the administration of Tehran. A SWOT analysis is conducted in order to identify the major issues preventing the realisation of liveability indicators. The internal and external factors of urban management impacting the realisation of liveability are clearly presented. The results demonstrate weaknesses in administration resulting from a lack of coordination between organisations in approving plans, a lack of accountability in urban management, a lack of staff with appropriate specialisation, a lack of appropriate mechanisms for residents to monitor urban plans, a lack of appropriate mechanisms for residents to express their needs, a lack of adequate and sustainable revenue, etc. Such weaknesses severely impede the realisation of liveability indicators in Tehran. Our findings also indicate that Tehran should take advantage of potential opportunities, including an accountable management at a local level, coordination between decision-making bodies related to urban affairs, the existence of the knowledge required for innovation in the system, private and public sector participation in the provision of infrastructure, delegation of the authority to disclose goals, plans and financial statements to local bodies, etc. Research findings highlight major strengths that urban management can exploit, as well as threats that need to be addressed in the future. The attempts by managers to establish coordination among the bodies involved in urban management is a strength. Although this strength is quite limited, the Tehran municipality has successfully employed it to prevent parallel work among organisations. In addition, factors such as the lack of a clear vision for the future of the city, inadequate knowledge on the part of urban managers regarding the overt and covert affairs of the city, obtaining revenue from unsustainable resources, etc. can be considered as threats to the city. The study also opens a new window to liveability in Tehran. Unlike similar studies, this research attempts to consider the structural and administrative barriers in city administration, and to highlight the strengths,

weaknesses, opportunities, and threats, and propose effective steps to clear the obstacles to the realisation of liveability.

Six critical strategies are proposed to improve liveability indicators based on the results of the SWOT analysis. All the strategies required for validation were presented to the experts and obtained high scores, which validates the strategies. The strategies include:

- (1) Providing municipalities with mechanisms to identify sustainable sources of revenue
- (2) Promoting stakeholder participation (private and public) in decision-making and Designing and holding training courses for residents in order to increase their knowledge as well as their tendency to participate in urban affairs
- (3) An integrated, coordinated and responsive management model
- (4) The delegation of authority to local institutions
- (5) Organising and strengthening the role of NGOs in the formulation of municipal plans and budgeting
- (6) Promoting the knowledge and expertise of employees and managers as well as creating mechanisms for attracting experts and employees based on the competency and expertise principle

The identified strategies are critical for the successful realisation of liveability in Tehran. The majority of these strategies point to issues that Tehran's urban management has been facing for many years. Coordination of strategies with each other at all times is necessary to prevent instability due to heterogeneous strategies. The six critical strategies of this study in conjunction with liveability variables provide a robust and effective yet simple way to Livable urban management. In sum, the present study identified several barriers in the urban Management process that can be merged into six major strategies. Therefore, the Iranian urban Management process can be improved through these strategies. The aforementioned functions will be affected when the government decides to enforce the modification of the Management system towards greater flexibility, review the process of decision-making, increase private-public participation, and enhance social responsibility in the city. These findings can help managers analyse urban problems and take steps to improve the situation. The proposed strategies should be

considered at the macro level by the decision-making authorities and an attempt should be made to create the required legal mechanisms for the implementation of the strategies.

Disclosure statement

No potential conflict of interest was reported by the authors.

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