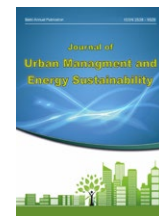


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CASE STUDY

Challenges and feasibility strategies of integrated urban management (case study: Tehran metropolis)

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ABSTRACT

Nowadays, cities, especially metropolises, due to uncontrolled issues and problems, have caused traditional urban management to lose its efficiency. In this regard, integrated urban management as a comprehensive institution is necessary to achieve sustainable urban development. This study aims to feasibility strategies of integrated urban management in Tehran as a metropolis city and to apply the present research the used method is descriptive and analytical. Data collection is library and field-work studies, and the statistical population consists of two groups of urban managers and urban studies specialists in Tehran. The AHP technique ranked the factors and strategies affecting the integrated management of the Tehran metropolis. Based on the results of the SWOT table, among the factors studied, the diversity of government and management areas of Tehran metropolis, with a score of 4.2, is the second most crucial factor in Tehran metropolis, with a score of 4.1 and the third factor of rapid physical changes and development of urban centers around Tehran with a score of 4.0 is one of the challenges of integrated metropolitan management in Tehran.

Running Title: Challenges and feasibility strategies of integrated urban management



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1. Introduction

Integrated urban management is a viewpoint that can guide the different and sometimes conflicting opinions and interests of public and private sector groups, informal organizations and individuals, and households toward a common direction regarding the city's development. Integrated urban management shows no comprehensive and integrated approach like various phenomena of cities and metropolitan areas. Making decisions and policies are guided by multiple factors (Chakrabarty, 2001). The process of good urban governance is the most effective, least expensive, and most sustainable way of applying management. Governance and government are two tools for managing the public affairs of cities. The government is responsible for all duties and is obliged to provide all services for the consumption of civil society or citizens. Governance is the responsibility of the public administration, among the three institutions of government, civil society, and the private sector. (Tagvaei, Tajdar 2009)

In Iran, urban management is at the disposal of 25 organizations. The inadequate urban structure has added more complex problems to the problems of cities every day because each organization focuses on urban issues according to its facilities and work, and there is no comprehensive view. (Tagvaei, Tajdar 2009)

The metropolis of Tehran is affected by various factors for its physical development and increased relations and connections with the surrounding area. It has gradually formed the functional area or the urban complex of Tehran. Some of these factors include a natural increase in population, an increase in migration from villages and cities to Tehran, approval of the Tehran Comprehensive Plan, and an increase in the price of land within the plan's scope—settlement of low-income groups in the surrounding areas. The above factors have caused the growth and spread of the population, activity, and expansion of the territory of the metropolitan area of Tehran. Even though more than 100 years have passed since the city of Tehran adopted the urban management system in a modern style, due to the prevailing centralist approach of the government in the administration of cities, municipalities,

and councils, it is still in the decision-making and politics approach. Urban planning does not enjoy much independence, and as a result, the urban policies of the metropolis of Tehran have been subject to many political divisions. Therefore, urban managers and policymakers have noticed the necessity of integrated urban management in recent years. Therefore, this research aims to answer the following important question:

What are the challenges and practical solutions in realizing the integrated urban management of the Tehran metropolis?

Previous studies

Ehsan Aslani et al. (2022), in an article titled "Analysis of Effective Indicators for Creating an Integrated Urban Management System in a World Heritage City," concluded that according to the path coefficients, there is a direct and meaningful relationship between different dimensions of intra-organizational, programmatic, structural/legal, vertical and inter-organizational relations with integrated urban management of Yazd city.

Arbabi Sizwari et al. (2021), in an article titled "Explaining the place of integrated urban management in the realization of good governance components," concluded that in developing countries, by reforming and changing the legal, management, and planning systems, it has provided the basis for the realization of integrated management and a platform for planning and management in solving problems.

Majidreza Ashtiani and Rahim Sarwar (2019), in an article titled "Realization of Integrated Urban Management with emphasis on the role and power of actors in different levels of urban management in Tehran," show that for urban governance factors and structural-management conditions, these two factors are appropriate in the field of realizing integrated urban management, as well as government institutions. The municipality and city councils have the most power in the decision-making levels of urban governance and have the most influence on the realization of the integrated urban management of Tehran.

Khairy Al-Ravi and Shorouq Saad Qassem (2022), in an article titled "Integrated Urban Management as a way of sustainable

Table 1: main components of integrated urban management

Source: Tuner & Bart

Components	indices
coordination	<ul style="list-style-type: none"> • The existence of coordination between the critical decision-making centers in the organization • There is coordination between the centers that approve the programs • Existence of coordination between actions and joint executive activities between organizations in charge of urban affairs • There is coordination between organizations in charge of urban affairs
Good governance	<ul style="list-style-type: none"> • The level of the organization's employee suggestions system quality • The citizens' suggestions system quality • Existence of meetings to exchange knowledge and experiences • Making the goals, plans, and financial statements of the organization available to citizens • Provide functional, timely, objective, and transparent information • Compilation of official ideas by the organization to explain the decisions made by the executive director and brokers for the users and the organization's stakeholders. • Participation of citizens in the design of projects, programs, and actions • Reporting the organization's performance to citizens • Reporting the organization's performance to competent institutions • Reporting the organization's performance to non-governmental investors and work organizations • Existence of accountability mechanisms for citizens • The organization's responsibility toward its stakeholders • The importance degree of the organization to implement laws and regulations in decision-making and implementation of affairs. • Providing all the facilities to the employees to be able to deal with problems
Co-ending	<ul style="list-style-type: none"> • The existence of common long-term goals among organizations in charge of urban affairs • Existence of aligned long-term goals among organizations in charge of urban affairs • The existence of a set of executive actions and activities in line with the vision of the organization
unity of command	<ul style="list-style-type: none"> • Existence of a trans-organizational leadership center to organize the dispersion of urban affairs management • Existence of a trans-organizational planning and decision-making center for this organization and other organizations • The trustee of urban affairs
coherence	<ul style="list-style-type: none"> • The existence of organizational solidarity between managers of organizations in charge of urban affairs concerning executive actions • The existence of solidarity between managers and employees of this organization • The existence of solidarity between this organization and other organizations in charge of urban affairs • The commitment of employees to the executive affairs of the city
Lay the groundwork	<ul style="list-style-type: none"> • Lay the groundwork • The legal and legal existence of infrastructure • Existence of appropriate communication infrastructures (broadband, internet, intranet, telephone, etc.) • Suitability of information infrastructure (GIS, MIS, RIS,...)
Interaction	<ul style="list-style-type: none"> • There is an interaction between this organization and other organizations in charge of urban affairs • Creating conditions for effective interaction with citizens
Organizational structure	<ul style="list-style-type: none"> • The existence of job diversity in the organization • Employee participation in organizational decision-making • Making important decisions in the organization using the public discussion process • Employee participation in administrative decision-making • The presence of clear and precise reporting lines and relations between superiors and subordinates • The existence of pre-defined work methods • Strict supervision regarding the observance of regulations and circulars
Systemic view	<ul style="list-style-type: none"> • The existence of a holistic view in facing complex urban issues in the organization • Existence of a common point of view between the work actions of organizations in charge of urban affairs • The proximity of the views and goals of the organizations in charge of urban affairs

development,” concluded that urban management plays an essential role in determining economic, social, and environmental scenarios. The non-compliance with integrated urban management indicators in the current urban management framework is one of the most critical issues.

Edward de Medeiros and Arnoven Derzoi (2020), in an article, titled sustainable and integrated urban planning and governance in metropolises and medium-sized cities investigated the design process and implementation of integrated strategies in cities, the priority of collaborative approaches and cooperation networks in the cities of Barcelona and Lisbon.

Integrated and coordinated urban management centered on the municipality and related institutions (both governmental and public) under supervision. The local politicization of the city council is the general model considered in the formulation of the duties of the municipalities. Without this unity and inter-organizational coordination, the efficiency and effectiveness of the measures and resources spent

on the administration of urban affairs and its development are highly questionable. In this way, the spatial and functional comprehensiveness of the municipalities and urban management in the guidance and control of the entire space of the city of Wahyat A city is a fundamental necessity. (Kazmian, Rezvani, 2013) Turner and Bart have identified the following main components of integrated urban management:

- The legitimacy of the government depends on the existence of participatory processes and the satisfaction of the governed.
- Responsibility and accountability of the political and official elements of the government in the field of their actions: this component depends on the accessibility of information, media freedom, and transparency of decision-making.
- Competence of the government to formulate the appropriate policy: to make a decision, to create a practical implementation, and to provide services.
- Respecting human rights and legality to

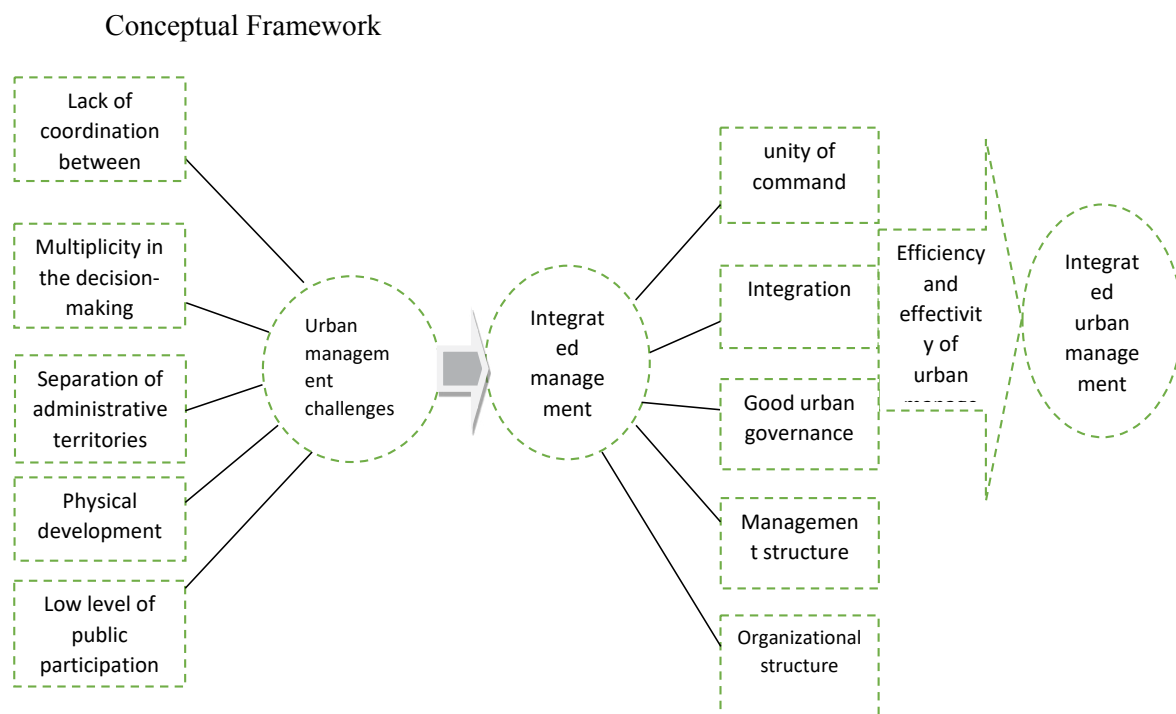


Figure 1: conceptual framework

ensure security and individual and group rights, providing solutions for economic and social activities, and encouraging people to participate.

2. Materials and Methods

Phenomena, whether they exist naturally or form due to the relationship between humans and the environment, due to their spatial occupation and placement in the environmental context, are placed in geographical studies by themselves. The city is also one of the phenomena that are the crystallization of a particular type of human relationship with the natural environment and its geographical background; Therefore, conducting geographical studies in the framework of urban plans and research is essential to obtain basic information about the environment.

In terms of method, the current research has used two descriptive-analytical methods to examine the challenges and strategies of integrated management of the Tehran metropolis. Every scientific research requires tools to carry out the appropriate techniques. The information is necessary for research in the documentation method, the most common forms of which are the use of books, reports, articles, and statistical yearbooks of Tehran. It is also necessary to refer to organizations related to urban issues, including Tehran Municipality and other related organizations, and information related to the performance section. We have created an urban management tool by using the field-work method and the closed five-choice questionnaires based on the Likert spectrum according to the question and hypothesis of the research.

Statistical society of the metropolitan area of Tehran:

The sample size includes 40 university professors and 40 managers, and related experts selected by purposeful sampling.

In the following stages of the research, we must obtain part of the information through the field method, which uses a two-level questionnaire and two statistical populations. A good questionnaire must-have features such as ease of implementation, practicality, the comfort of interpretation and interpretation, validity, and reliability. Among these, validity and

reliability are the most important things used to measure the correctness of measuring concepts and researcher-made tools. Reality means that the scale and content of the instrument or the questions contained in the information-gathering device accurately estimate the variables and the subject under study. The reliability of the agency, also called validity, accuracy, and reliability, is that if a measuring instrument made to measure a variable and used an attribute in similar conditions at another time or place, will obtain the same results. To achieve it, in other words, a reliable or valid tool is a tool that has the exact reproducibility and measuring results. Knowing that a test must be dedicated to being accurate, and in other words, reliability is a condition of validity; First, the tool's reliability was measured as follows. We designed a questionnaire to increase the validity of the questions after the operational definition in line with the primary goal of the research. To estimate the reliability, check the accuracy of the questions, and measure the appropriate level of the analysis tool, we calculated the alpha value of all the items using Cronbach's alpha coefficient method. It is also worth mentioning that in calculating this coefficient, we paid attention to items' alignment and their categories. Since the computed alpha coefficient is equal to 0.782, it is higher than the minimum acceptable value of 0.7, and the validity and reliability of the questionnaire are confirmed.

The SWAT technique identifies the data analysis's strengths, weaknesses, opportunities, and threats. This model is an initial stage of Analysis with the ultimate goal of presenting and adopting the necessary policies to balance internal and external factors. The logic of this approach is that an effective strategy should maximize the strengths and opportunities of the system and minimize the weaknesses and threats. This systematic flow supports decisions and work methods. Also, the AHP technique was used to rank factors and practical strategies for the integrated management of the Tehran metropolis. Analytical Hierarchy Process (AHP) is one of the MEDM methods that is used to decide and choose an option among several options, according to the indicators determined by the decision maker.

2.1. The geographic case

The city of Tehran has an area of about 730 square kilometers between 35 degrees and 34 minutes to 35 degrees and 59 minutes of north latitude and 51 degrees and 5 minutes to 51 degrees and 53 minutes of east longitude. The southern elevations of central Alborz cover the north and northeast of Tehran, and from the west side of the Savojblagh Plain, in the south of the Ray and Babi Shahrbanoo region, the plains leading to salt desert surround this city. It is bounded from the north to Shemiranat city, from the east to Damavand city, from the south to Varamin, Ray, and Islamshahr cities, and from the west to Shariar and Karaj city. Tehran has 22 regions, 134 districts, and 374 neighborhoods.

The largest urban area of Tehran is district 4, with 73 square kilometers, followed by district 5, with 59 square kilometers, and the smallest districts of Tehran are districts 10 and 17, with 8 square kilometers. The population of Tehran and its 22 districts is equal to 8,737,510 people. Among the districts of Tehran, the largest population belongs to district 4, with the largest population of 865,467 people and district 5, 848,433 people. And the smallest population is assigned to region 22, with 140,567 people.

3. Finding and discussion

Today, in most of the research that relies on the information collected from the subject under investigation, the Analysis of information is considered one of the study's leading and most essential parts. The raw data are analyzed using statistical software and provided to the users as information after processing. Questionnaire questions are based on integrated management indicators (coordination of urban management organizations, unity of command, good urban governance, organizational structures, and networking) mentioned in Table 1 designed and presented.

As mentioned, the data processing from the questionnaire was mainly done using statistical software. We tried to present the results in a summary form along with the relevant Table and graph and analyzed the Table as well.

In this research, SWOT analysis is used to identify and examine internal and external

influencing factors on integrated management and characteristics of the Tehran metropolis. First, a list of strengths, weaknesses, opportunities, and threats for organizational aspects and integrated management of the Tehran metropolis is extracted with the opinion of experts (Table No. 2). After identifying internal and external factors; the factors are weighted.

To evaluate and weigh the important factors, such as management factors and integrated management of the Tehran metropolis, they were analyzed separately in forming the evaluation matrix of internal factors (IFE) and the formation of the evaluation matrix of external factors (EFE).

As indicated in Table 4, according to the respondents, among the strengths respectively: the existence of potential resources for creating sustainable urban incomes (4.1), the formation of the city council as a link between citizens and city managers (4.0), the existence of urban development plans as A capacity in line with coordinated development (3.8) ranks the first to the third, the strengths of the integrated management of Tehran metropolis.

- As indicated in Table 4, according to the respondents, the first to third rank weak points are, respectively: poor coordination between urban institutions and organizations and parallel work (4.2), wasteful practice of high-rise construction in the Tehran metropolis (4.15), non-institutionalization of the council management system and methods (4.12).

Table 5 shows the external factors evaluation matrix (EFE). In this Table, opportunities and threats are examined.

As indicated in Table 5, according to the respondents, among the strategic strength first to third rank are, respectively: the existence of various resources and economic capacities in providing the management resources of Tehran metropolis (4.2), preparing and approving the plan of the urban complex of Tehran (3.9), determining the territory of the complex Tehran city and urban areas (3.7).

As indicated in Table 5, according to the respondents, among the strategic threats, the first to third ones are, respectively, the multiplicity and diversity of the governmental and administrative territories of Tehran metropolis (4.2), the

Table 2: shows the mean and standard deviation of the research questions

Questions	Mean	standard deviation	T-test	Significance level	Result
1. Interference of political and administrative realms in the metropolitan management of Tehran	4.0750	.88831	7.654	.000	Approved
2. Non-institutionalization of the council management system and methods in the Tehran metropolis	4.1250	.88252	8.062	.000	Approved
3. Lack of monitoring and review mechanisms in the formulation and implementation of urban planning and management development plans	4.1000	.90014	7.729	.000	Approved
4. Lack of revenue independence of municipalities	4.0500	.93233	7.123	.000	Approved
5. Low level of public participation in decision-making and management processes	3.9750	1.02501	6.016	.000	Approved
6. Weak coordination between municipal institutions and organizations and parallel work	4.2000	.79097	9.595	.000	Approved
7. Weak accountability and responsibility of the officials	4.0250	1.02501	6.325	.000	Approved
8. Dependence of municipalities on unstable incomes and incomes from construction	3.9500	.95943	6.262	.000	Approved
9. Multiplicity of managerial decision-making bodies	4.1250	.93883	7.579	.000	Approved
10. Destruction of natural resources and agricultural land around the Tehran metropolis	4.0000	.93370	6.774	.000	Approved
11. Unnecessary spread of high-rise construction in Tehran	4.1500	.83359	8.725	.000	Approved
12. Existence of specific definitions and boundaries in determining the metropolitan territory of Tehran	3.6500	.92126	4.462	.000	Approved
13. The acceptability of tourism development programs in the urban management system in recent years	3.5750	1.12973	3.219	.003	Approved
14. The existence of Islamic city and village councils and civil organizations in line with the development of urban democracy	3.6500	1.21000	3.397	.002	Approved
15. Existence of urban development plans as a capacity for coordinated development	3.8751	.96576	5.730	.000	Approved
16. Existence of various regulations in the field of planning and management of the Tehran metropolis	3.8750	.82236	6.729	.000	Approved
17. The formation of the city council as a link between citizens and city managers	4.0000	.75107	8.421	.000	Approved
18. Existence of potential sources for creating sustainable urban incomes	4.1000	.90014	7.729	.000	Approved
19. High concentration of elites and specialists in the field of urban and regional studies in the Tehran metropolis	3.7000	1.13680	3.894	.000	Approved
20. High educational, cultural, medical, and health capacities and infrastructures in the Tehran metropolis	3.4000	1.21529	2.082	.044	Approved
21. Existence of different modes of transportation in the Tehran metropolis	3.5250	1.15442	2.876	.006	Approved
22. Priority of renovation and improvement of the housing program in the Tehran metropolis	3.8250	.98417	5.302	.000	Approved
23. High number of investors in the Tehran metropolis	3.6250	.97895	4.038	.000	Approved
24. Preparing and approving the complex urban plan of Tehran	3.9000	1.05733	5.383	.000	Approved
25. High level of public awareness in Tehran metropolis compared to other regions of the country	3.6250	1.16987	3.379	.002	Approved
26. The possibility of using the favorable and successful experiences of successful countries in the development of appropriate management systems	3.5250	1.03744	3.201	.003	Approved
27. Using the potential of the open space around the metropolis of Tehran to expand economic activities	3.4750	.84694	3.547	.001	Approved
28. Determining the territory of Tehran's urban complex and urban areas	3.7750	1.04973	4.669	.000	Approved
29. specific visions for the metropolis of Tehran in the majority of the plan	3.6250	1.49679	2.641	.012	Approved

Continued Table 2: shows the mean and standard deviation of the research questions

Questions	Mean	standard deviation	T-test	Significance level	Result
30. Existence of different resources and economic capacities in providing management resources in the Tehran metropolis	4.2000	.99228	7.649	.000	Approved
31. The multiplicity and diversity of the governmental and administrative territories of the Tehran metropolis	4.2750	1.03744	7.773	.000	Approved
32. Multiplicity in the decision-making system of the management of the territory of the Tehran metropolis	4.1000	.95542	7.282	.000	Approved
33. The high level of negative consequences resulting from the vertical relations of the central government with local administrations	3.5250	1.06187	3.127	.003	Approved
34. Changes and rapid physical development of urban centers around the metropolis of Tehran	4.0000	1.06217	5.954	.000	Approved
35. The possibility of wasting various financial, human, and environmental costs due to the diversity of management institutions	3.8500	1.33109	4.039	.000	Approved
36. The possibility of the investors' unwillingness in Tehran due to the high level of risk	3.9250	1.07148	5.460	.003	Approved
37. The high level of densification and destruction of the environment	3.8000	1.36250	3.713	.000	Approved
38. Growth of air pollution levels due to the inappropriate location of industries and services	3.6500	1.18862	3.459	.001	Approved
39. The high level of pollution (air, environment, sound, and visual) due to culturalization and more reliance on private cars instead of public transportation	3.6250	1.05460	3.748	.000	Approved

assortment in the decision-making system (4.1), the rapid physical developments of urban centers around Tehran metropolis (4.0).

Table 5 shows the frequency distribution of strategic threats to integrated urban management. At this stage, by using the results of internal (IFE) and external (EFE) factors, the development of competitive/offensive (SO), diversity (ST), revision (WO), and defensive (WT) strategies has been done. From the results of the Table, we can see that the strategies are aggressive.

In the following, we have used the AHP technique to rank the factors and strategies influential on the integrated management of the Tehran metropolis. The Analytic Hierarchy Process (AHP) method is a decision-making method that enables the decision-maker or the decision-making group to formulate the desired problem and solve it. This method was proposed for the first time in 1980 by Thomas Saati. At first, we formed a framework to carry out the hierarchical analysis process. A list of effective strategies for realizing the integrated management of the metropolis of Tehran is prepared, as shown in Figure 1.

Also, the completion of paired comparisons matrix by the experts of the paired comparisons' consolidated matrix, the factors affecting the realization of the integrated management of the metropolis of Tehran in the compressed Tables related to the paired comparisons, and the inconsistency rate related to each criterion are below:

Table 7 shows the combined matrix of pairwise comparisons of factors affecting the realization of the integrated management of the Tehran metropolis, whose inconsistency rate is 0.02:

Here, numbers with an upward arrow next to them (↑) indicate that the criterion placed in the column is preferred over the standard established in the row. If there is a number without an arrow, it means that the agent in the row agent is preferable to column one.

In Table 8, the ranking of effective strategies for realizing the integrated management of the Tehran metropolis is specified according to the hierarchical analysis technique.

The results of the hierarchical analysis technique show that among the effective strategies on the integrated management of the metropolis

Table 3: Identification of internal and external factors of management challenges and integrated management of the Tehran metropolis

Factors	Strength	Weakness	Opportunity	Threat
management challenges and integrated management of the Tehran metropolis	<p>Existence of specific definitions and boundaries in determining the metropolitan territory of Tehran</p> <ul style="list-style-type: none"> - The acceptability of tourism development programs in the urban management system in recent years - Existence of Islamic city and village councils and civil organizations in line with the development of urban democracy - Existence of urban development plans as a capacity in line with coordinated development - Existence of various regulations in the field of planning and management of the Tehran metropolis - The formation of the city council as a liaison between citizens and city managers - Existence of potential resources for creating sustainable urban incomes - High concentration of elites and specialists in the field of urban and regional studies in the Tehran metropolis - High educational, cultural, medical, and health capacities and infrastructures in the Tehran metropolis - The existence of different modes of transportation in Tehran - The priority of renovation and improvement of the housing program in the Tehran metropolis 	<p>Interference of political and managerial realms in the metropolitan management of Tehran</p> <ul style="list-style-type: none"> - Non-institutionalization of the council management system and methods in the Tehran metropolis - Absence of monitoring and review mechanisms in the formulation and implementation of planning and urban management development plans -Lack of revenue independence of municipalities - The low level of public participation in decision-making and management processes - Weak coordination between urban institutions and organizations and parallel work - Weak accountability and responsibility of officials - Dependence of municipalities on unstable incomes and incomes from construction -Multiple managerial decision-making institutions - Destruction of natural resources and agricultural land around the Tehran metropolis - It is a common practice to build high-rise buildings in Tehran 	<p>The high number of investors in the Tehran metropolis</p> <ul style="list-style-type: none"> -Preparation and approval of the conurbation plan of Tehran - High level of public awareness in Tehran metropolis compared to other regions of the country - The possibility of using the favorable and prosperous experiences of successful countries in the development of appropriate management systems - The possibility of using the potential of the open space around the metropolis of Tehran to expand economic activities - The possibility of determining the territory of the urban complex of Tehran and its metropolitan areas - specific visions for the metropolis of Tehran in the majority of the plan <p>The existence of different economic resources and capacities in providing management resources in the Tehran metropolis</p>	<p>The multiplicity and diversity of the administrative and administrative territories of the Tehran metropolis</p> <ul style="list-style-type: none"> - Multiplicity in the decision-making system of the management of the territory of the Tehran metropolis - The high level of negative consequences resulting from the central government's vertical relations with local administrations - Changes and rapid physical development of urban centers around the metropolis of Tehran - The possibility of wasting various financial, human, and environmental costs due to the multitude of management institutions - Reluctance of investors in Tehran metropolis due to the high level of risk - High level of densification and environmental destruction - The growth of the level of air pollution due to the inappropriate location of industries and services - The high level of pollution (air, environment, sound, and visual) due to culturalization and more reliance on private cars instead of public transportation

of Tehran, in order: creating legal platforms for the realization of integrated urban management, institutionalizing the management of the urban fabric, developing public participation between people and officials, increasing the efficiency and strengthening the position of the city council, Information infrastructures for integrated urban management, overlap of organizational

duties in various organizations related to urban management, creating context and opportunity to use the capabilities of the private sector in the implementation of affairs, operationalizing the opinions of experts and specialists in the direction of inter-organizational coordination, the legality of organizations and preventing the interference of unrelated groups in their duties, the obligation

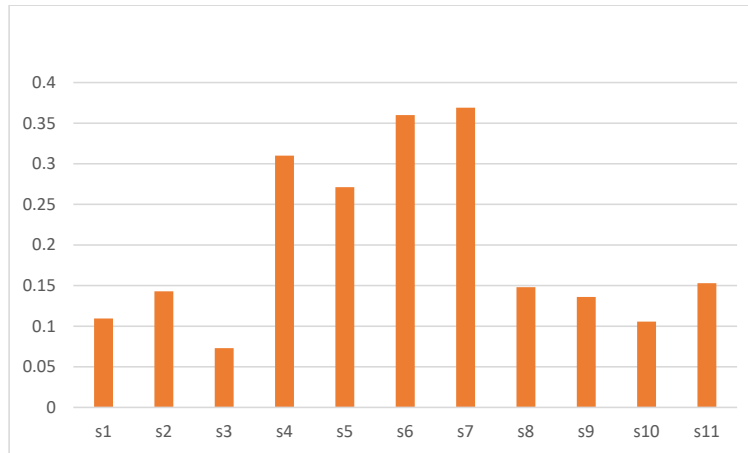


Figure 2: distribution of the frequency percentage related to the strengths of integrated management of the Tehran metropolis

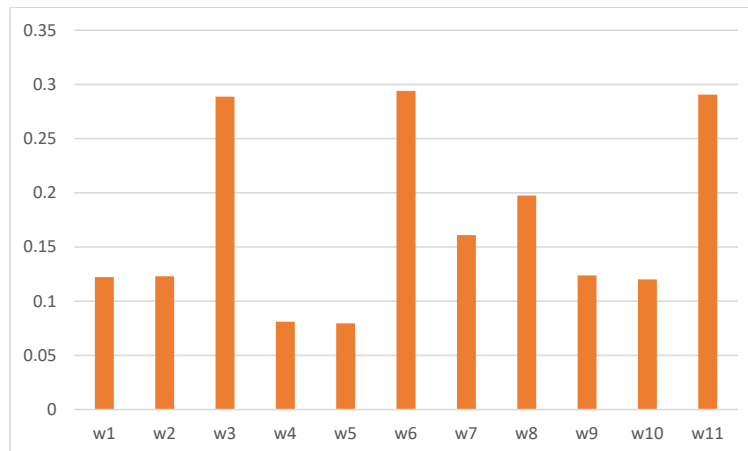


Figure 3: distribution of the frequency percentage related to the weaknesses of the integrated management of Tehran metropolis.

to comply Laws as well as their changes according to the needs of the day, expansion of services and facilities to marginal areas and empowerment of marginal residents, implementation of studies of strategic plans of Tehran metropolis are the most important.

Improving the internal and external platforms and facilities between different institutions involved in integrated urban management

-Creating coordination between organizations in charge of urban affairs by creating centers for fundamental decisions of the organization. The

main goal of the present research is to address the challenges and strategies for realizing integrated urban management in the Tehran metropolis. The present research method is descriptive-analytical, the field data collection method, and the data collection tool is a questionnaire. The statistical population of the current research is 40 university professors and 40 managers, and related experts, who were selected by purposeful sampling. The SWOT technique was used to identify the strengths, weaknesses, opportunities, and threats of realizing integrated urban management in the Tehran metropolis. The AHP technique was

Table 4: shows the Internal Factors Evaluation (IFE) matrix. In this table, strengths and weaknesses have been examined.

		code	weight	score	Weighted score
	Existence of specific definitions and boundaries in determining the metropolitan territory of Tehran	S ₁	0.03	3.6500	0.1095
	The acceptability of tourism development programs in the urban management system in recent years	S ₂	0.04	3.5750	0.1430
	The existence of city and village Islamic councils and civil organizations in line with the development of urban democracy	S ₃	0.02	3.6500	0.0730
	The existence of urban development plans as a capacity for coordinated development	S ₄	0.08	3.8750	0.3100
	Existence of various regulations in the field of planning and management of the Tehran metropolis	S ₅	0.07	3.8750	0.2712
	The formation of the city council as a link between citizens and city managers	S ₆	0.09	4.0000	0.3600
	The existence of potential resources for creating sustainable urban incomes	S ₇	0.09	4.1000	0.3690
	High concentration of elites and specialists in the field of urban and regional studies in the Tehran metropolis	S ₈	0.04	3.7000	0.1480
	. High educational, cultural, medical, and health capacities and infrastructures in the Tehran metropolis	S ₉	0.04	3.4000	0.1360
	. Existence of different modes of transportation in the Tehran metropolis	S ₁₀	0.03	3.5250	0.1057
	The priority of renovation and improvement of the housing program in the Tehran metropolis	S ₁₁	0.04	3.8250	0.1530
	Interference of political and administrative realms in the metropolitan management of Tehran	W ₁	0.03	4.0750	0.1222
	Non-institutionalization of the council management system and methods in the Tehran metropolis	W ₂	0.03	4.1250	0.1230
	Lack of monitoring and review mechanisms in the formulation and implementation of urban planning and management development plans	W ₃	0.07	4.1000	0.2887
	Lack of revenue independence of municipalities	W ₄	0.02	4.0500	0.0810
	The low level of public participation in decision-making and management processes	W ₅	0.02	3.9750	0.0795
	Poor coordination between urban institutions and organizations and parallel work	W ₆	0.07	4.2000	0.2940
	Weak accountability and responsibility of officials	W ₇	0.04	4.0250	0.1610
	Dependence of municipalities on unstable incomes and incomes from construction	W ₈	0.05	3.9500	0.1975
	The diversity of managerial decision-making bodies	W ₉	0.03	4.1250	0.1237
	Destruction of natural resources and agricultural land around the Tehran metropolis	W ₁₀	0.03	4.0000	0.1200
	Unnecessary spread of high-rise construction and construction in the metropolis of Tehran	W ₁₁	0.07	4.1500	0.2905

used to rank the factors affecting the completion of integrated urban governance in the Tehran metropolis.

In this part, we examined the strengths, weaknesses, opportunities, and threats of the realization of integrated urban management in the Tehran metropolis; finally, to rank the factors affecting the completion of integrated urban governance in the Tehran metropolis, a hierarchical analysis technique was used.

As it was determined, the most important strengths: the existence of potential resources for creating sustainable urban incomes, the formation of the city council as a link between citizens and city managers, and the existence of urban development plans as a capacity for coordinated development, and the most critical weaknesses: weak coordination between parallel and urban institutions and organizations work, the unnecessary spread of high-rise

Table 5 shows the evaluation matrix of external factors (EFE); this table examines opportunities and threats.

		code	weight	score	Weighted score
	The high number of investors in the Tehran metropolis	o ₁	0.05	3.6250	0.1812
	Preparing and approving the conurbation plan of Tehran	o ₂	0.09	3.9000	0.3510
	The high level of public awareness in Tehran metropolis compared to other regions of the country	o ₃	0.04	3.6250	0.1450
	The possibility of using the favorable and successful experiences of successful countries in the development of appropriate management systems	o ₄	0.05	3.5250	0.1762
	Using the potential of the open space around the metropolis of Tehran to expand economic activities	o ₅	0.02	3.4750	0.0695
	Determining the territory of Tehran's urban complex and urban areas	o ₆	0.09	3.7750	0.3397
	Existence of specific visions for the metropolitan area of Tehran in the majority of the conurbation plan of Tehran	o ₇	0.05	3.6250	0.1812
	The existence of different economic resources and capacities in providing management resources in the Tehran metropolis	o ₈	0.1	4.2000	0.4200
	The multiplicity and diversity of the administrative and administrative territories of the Tehran metropolis	t ₁	0.09	4.2750	0.3847
	Multiplicity in the decision-making system of the management of the territory of the Tehran metropolis	t ₂	0.08	4.1000	0.3280
	The high level of negative consequences resulting from the central government's vertical relations with local administrations	t ₃	0.05	3.5250	0.1762
	Changes and rapid physical development of urban centers around the metropolis of Tehran	t ₄	0.08	4.0000	0.3200
	The possibility of wasting various financial, human, and environmental costs due to the multitude of management institutions	t ₅	0.05	3.8500	0.1925
	The possibility of the unwillingness of investors in Tehran metropolis due to the high level of risk	t ₆	0.03	3.9250	0.1177
	The high level of densification and destruction of the environment	t ₇	0.05	3.8000	0.1900
	The growth of air pollution levels due to the improper location of industries and services	t ₈	0.03	3.6500	0.1095
	The high level of pollution (air, environment, sound, and visual) is due to culturalization and more reliance on private cars instead of public transportation.	t ₉	0.05	3.6250	0.1812

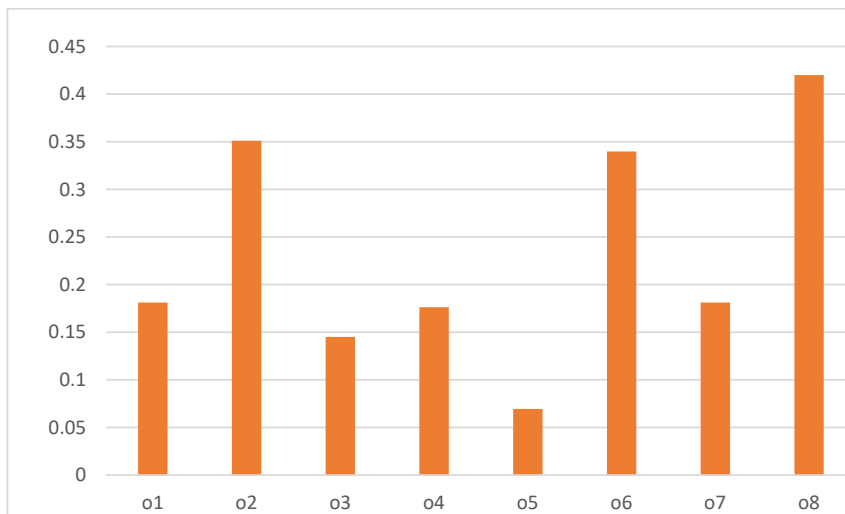


Figure 4: distribution of frequency percentage related to strategic opportunities of integrated management of Tehran metropolis

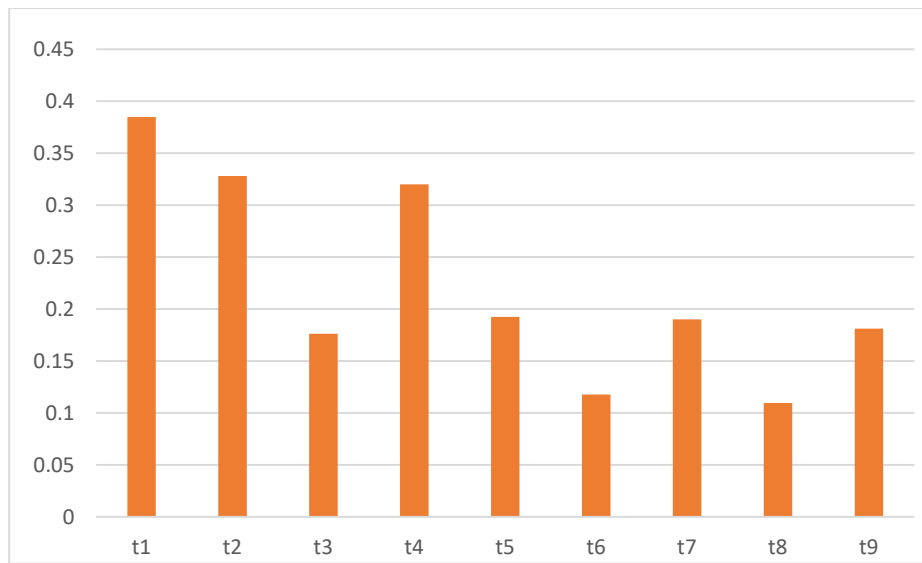


Figure 5: distribution of frequency percentage related to strategic threat of integrated management of Tehran metropolis

- Creating legal bases for integrated urban management realization
- Institutionalization of urban package management
- Development of public partnership between people and officials
- Increasing the efficiency and strengthening the position of the city council
- Information infrastructure for integrated urban management
- Overlap of organizational duties in different organizations related to urban management
- Creating the context and opportunity to use the capabilities of the private sector in the affairs
- Operationalizing the opinions of experts and experts in the direction of inter-organizational coordination
- Legitimacy of organizations and preventing the interference of unrelated groups in their duties
- Obligation to comply with the rules and change them according to the needs of the day
- Expanding services and facilities to marginal areas and empowering marginal residents
- Implementation strategic plans studies of Tehran metropolis

Figure 6: effective strategies for realizing the integrated management of the metropolis of Tehran

buildings and structures in the metropolis of Tehran and the non-institutionalization of the council management system and methods in the municipality of Tehran and the most critical strategic opportunities: the existence of various economic resources and capacities in the provision of management resources of the metropolis of Tehran, the preparation and approval of the plan of the urban complex of Tehran and the

determination of the territory of the urban complex Tehran and its urban areas and the most critical strategic threats are: the multiplicity and diversity of the governmental and administrative regions of Tehran metropolis, the variety in the decision-making system of the management of the territory of Tehran metropolis, and the rapid physical developments and development of urban centers around Tehran metropolis.

Table 6: Matrix of integrated management strategies and solutions of Tehran metropolis

Weakness		Strength		Internal factors	External factors
<p>1- Interference of political and administrative realms in the metropolitan management of Tehran</p> <p>2- Non-institutionalization of the council management system and methods in the Tehran metropolis</p> <p>3- Weak coordination between urban institutions and organizations and parallel work</p> <p>4- Unnecessary spread of high-rise construction in Tehran</p> <p>5- Dependence of municipalities on unstable incomes and incomes from construction</p> <p>6- Multiplicity of managerial decision-making bodies</p> <p>(WO) Conservative strategies</p>	<p>1- The existence of city and village Islamic councils and civil organizations in line with the development of urban democracy</p> <p>2- The existence of urban development plans as a capacity for coordinated development</p> <p>3- The formation of the city council as a link between citizens and city managers</p> <p>4- Existence of potential resources for creating sustainable urban incomes</p> <p>5- High concentration of elites and specialists in the field of urban and regional studies in the Tehran metropolis</p> <p>6- High educational, cultural, medical, and health capacities and infrastructures in the Tehran metropolis</p> <p>(SO) Aggressive strategies</p>	<p>Forming a coordination council to coordinate - between organizations -</p> <p>Moving towards decentralization of government - organizations and handing over to local governments -</p> <p>Creating greater coordination between urban - management implementing organizations -</p> <p>Formation of the coordination and supervision - committee for the affairs of various organizations -</p>	<p>1- High number of investors in the Tehran metropolis</p> <p>2- Preparation and approval of the Tehran urban complex plan</p> <p>3- The existence of different economic resources and capacities in providing management resources in the Tehran metropolis</p> <p>4- The possibility of using the favorable and successful experiences of successful countries in the development of appropriate management systems</p> <p>5- Using the potential of the open space around the metropolis of Tehran to expand economic activities</p> <p>6- Determining the territory of Tehran's conurbation plan and urban areas</p>		
<p>Assigning the authority to prepare urban and regional development plans for local projects</p> <p>Creating sustainable sources of income for the municipalities of Tehran metropolis</p> <p>Election of heads of organizations and organizations by the mayor</p> <p>Moving towards a bureaucratic structure in local governments and urban management</p> <p>(WT) Defensive strategies</p>	<p>Determining the scope of duties of each organization -</p> <p>Development of new cities around Tehran to - organize and balance -</p> <p>Carrying out all activities and plans within the framework of a plan</p> <p>Reforming and rearranging organizations and inter-organizational relations</p>	<p>(ST) Competitive strategies</p> <p>Distribution of some headquarters and training centers in the surrounding cities of Tehran</p> <p>Gradual transfer of unnecessary units located in Tehran</p> <p>Legislation to decentralize financial resources and political power from the central government</p> <p>Distribution of activities and the working population at the level of large cities</p>	<p>1- The multiplicity and diversity of the administrative and administrative territories of the Tehran metropolis</p> <p>2- Multiplicity in the decision-making system of the Tehran metropolitan area management</p> <p>3- The high level of negative consequences resulting from the central government's vertical relations with local administrations</p> <p>4- Changes and rapid physical development of urban centers around the Tehran metropolis</p> <p>5- The possibility of wasting various financial, human, and environmental costs due to the diversity of management institutions</p> <p>6- The possibility of the unwillingness of investors in the Tehran metropolis due to the high level of risk</p>		

Table 7: integrated matrix of pairwise comparisons of effective strategies on the integrated management of Tehran metropolises

Dimensions	Creating legal platforms for the realization of integrated urban management	Institutionalization of urban package management	Development of public partnership between people and officials	Increasing the efficiency and strengthening the position of the city council	Information infrastructure for integrated urban management	Overlap of organizational duties in different organizations related to urban management	Creating the context and opportunity to use the capabilities of the private sector in the affairs	Operationalizing the opinions of experts and in the direction of inter-organizational coordination	The legitimacy of organizations and preventing the interference of unrelated groups in their duties	Implementation of strategic plans of the Tehran metropolis	Expanding services and facilities to marginal areas and empowering marginal residents	Obligation to comply with the rules and change them according to the needs of the day
Creating legal platforms for the realization of integrated urban management		12.4	3.10	3.43	4.44	3.87	3.19	3.78	3.56	3.87	4.11	3.89
Institutionalization of urban package management			4.18	3.45	3.00	4.12	3.65	2.98	3.75	4.12	1.90	3.87
Development of public partnership between people and officials				2.85	2.98	3.00	4.55	3.54	3.66	4.12	3.59	3.77
Increasing the efficiency and strengthening the position of the city council					3.69	4.32	4.12	1.98	2.98	3.78	2.89	3.89
Information infrastructure for integrated urban management						3.12	4.19	3.28	4.00	3.90	3.89	3.18
Overlap of organizational duties in different organizations related to urban management							3.54	4.12	3.14	3.42	3.88	4.77
Creating the context and opportunity to use the capabilities of the private sector in the affairs								2.77	4.12	3.76	4.16	3.78
Operationalizing the opinions of experts and in the direction of inter-organizational coordination									2.98	3.70	3.28	4.16
The legitimacy of organizations and preventing the interference of unrelated groups in their duties										2.89	3.76	2.88
Implementation of studies of strategic plans for the Tehran metropolises											3.00	3.14
Expanding services and facilities to marginal areas and empowering marginal residents												3.60
Obligation to comply with the rules and change them according to the needs of the day												

Table 8 Ranking of effective strategies for the realization of integrated management of the Tehran metropolis

rank	weight	Strategy
1	0.156	Creating legal bases for the realization of integrated urban management
2	0.122	Institutionalization of urban package management
5	0.099	Development of public partnership between people and officials
6	0.078	Increasing the efficiency and strengthening the position of the city council
3	0.101	Information infrastructure for integrated urban management
7	0.073	Overlap of organizational duties in different organizations related to urban management
4	0.100	Creating the context and opportunity to use the capabilities of the private sector in the affairs
11	0.054	Operationalizing the opinions of experts and experts in the direction of inter-organizational coordination
8	0.073	The legitimacy of organizations and preventing the interference of unrelated groups in their duties
12	0.031	Obligation to comply with the rules and change them according to the needs of the day
10	0.055	Expanding services and facilities to marginal areas and empowering marginal residents
9	0.058	Implementation of studies of strategic plans of the Tehran metropolis

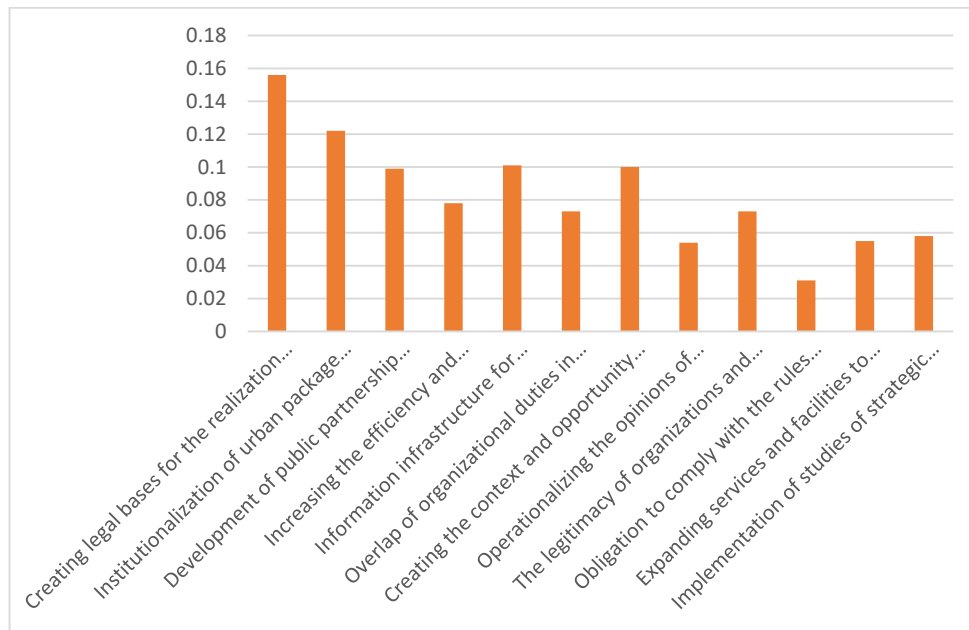


Figure 7: Ranking effective strategies on the feasibility of Tehran metropolis integrated management

4. Result and conclusion

Today, due to the problems in big cities, such as poverty, social anomalies, insecurity, traffic, etc., traditional management has lost its efficiency, and integrated urban management can reduce these problems. To reduce the increasing difficulties of urbanization, the urban management system is looking for ways to facilitate and improve the management of cities. Integrated management is not arbitrary, one-sided, and one-axis management, but in this management. All the

institutions and organizations active in the city should take steps in cooperation with urban management. Finally, urban management will think together and receive different opinions regarding adopting intelligent measures. Integrated urban management is new and emerging in the urban management literature of Iran, and there are very few experts in Iran. They have researched it. The urban management system in the Tehran metropolis is not in good condition and is facing transitory problems. In this research,

the strengths, weaknesses, opportunities, and threats of the integrated management of the Tehran metropolis were examined, in the end, to rank the effective strategies for realizing the integrated management of the Tehran metropolis. A hierarchical analysis technique was used. As it became clear, the most critical weaknesses and threats of the integrated management of Tehran metropolis are respectively: weak coordination between urban institutions and organizations and parallel work, unnecessary prevalence of high-rise buildings and structures in Tehran metropolis, non-institutionalization of the council management system and methods in Tehran metropolis, multiplicity and diversity of governmental and administrative territories of Tehran metropolis, assortment in the management decision-making system The boundaries of the municipality of Tehran, the rapid physical developments and development of urban centers around the metropolis of Tehran are also the most essential strategies for the realization of integrated management of the municipality of Tehran, the creation of legal platforms for the completion of integrated urban governance, the institutionalization of the management of the urban fabric, the development of public participation between people and officials. The following is provided for the implementation of integration management:

Creating systemic thinking and remembering a holistic view in dealing with complex urban issues

Legislation to decentralize financial resources and political power from the central government to local levels

- Creating sustainable sources of income for municipalities located in the Tehran metropolis
- Territorial or geographical integration means integration in the zoning of the city area to provide services from different urban organizations.
- Clarification of inter-organizational relations and assignment of all essential urban areas such as supply and distribution of resources, provision of urban services, and urban policy and decision-making processes.

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