



Article Type: Research Article

Available online: [www.tmp.twistingmemoirs.com](http://www.tmp.twistingmemoirs.com)

ISSN 2583-7214

## ANALYSIS OF GOOD URBAN GOVERNANCE INDICATORS AND ITS IMPACT ON THE EFFICIENCY AND EFFECTIVENESS OF LOCAL MANAGEMENT WITH A FUTURES STUDIES APPROACH

\*Shima Fadavi Nia

\* PHD in Geography and Urban Planning, Science and Research Unit, Islamic Azad University, Tehran, Iran.

Corresponding Author: Shima Fadavi Nia

### ABSTRACT

In this research, the dimensions of desirable urban governance in District 20 of Tehran are evaluated from a futures studies perspective. Key factors and their interconnections have been analyzed and ranked. The study is applied in its purpose and descriptive-analytical in its methodology. By reviewing the literature and extracting the most significant key factors of urban governance using the Delphi technique from 30 experts, factors were assessed based on consensus and certainty, priority, and importance. Key factors and input parameters were identified, resulting in 51 key drivers ready for input into the Micmac software.

The evaluation of the impact and influence of key factors shows that three drivers are ranked first in terms of direct and indirect impact. Out of 237 possible situations, 48.10% show favorable conditions, 29.96% are static, and 21.94% are critical. Additionally, there are nine scenarios with favorable conditions, indicating promising prospects for urban management in the future.

**Keywords:** Urban Management, Good Urban Governance, Futures Studies, Delphi Technique, District 20 of Tehran.

### INTRODUCTION

In recent decades, urban management has increasingly faced numerous challenges (Krähmer, 2021:1276) due to various social, cultural, political, executive, financial, and legal factors (Shaoori and Nouhehdi, 2018: 327). Urban societies, especially in their modern forms, are constantly exposed to different types of challenges (Hawley et al., 2012:730; Hogan et al., 2014:165). The transformations in science and technology have not only opened new horizons for various services but also created new responsibilities for the public sector (Liu et al., 2020). Consequently, city management has become a significant concern. Undoubtedly, successful urban

management can lead the city towards sustainable development and enhance the welfare of its residents (Salahi Hossein et al., 2019:262). Today, what is emphasized in city administration and introduced as a paradigm in urban management is the utilization of the model of good urban governance. In this model, the government, citizens, and private institutions participate in a horizontal and cross-sectional flow (Rezaei and Shamsedini, 2019:27). Currently, good urban governance is recognized as the most effective, cost-efficient, and sustainable method of management (Taghvaei and Tajdar, 2009:2). Futures Studies is a new paradigm in long-term planning that has emerged to address unpredictable, complex, intertwined, and uncertain issues in recent decades (Ratcliffe & Krawczyk, 2012: 647).

Therefore, the need to shift from traditional urban planning approaches to new and efficient methods, including Futures Studies and scenario planning, is more evident than ever for changing the current trajectory of cities in Iran (Pourmousavi et al., 2015:20). Reviewing empirical studies on this topic shows that the use of Futures Studies methods in macro and structural issues of urban management and governance has been increasing. According to Futures Studies approaches, effective and efficient governance can be achieved through mutual cooperation among the government, the private sector, and the local community (Markus and Krings, 2020:1516). Thus, the results of Futures Studies based on foresight can be applied to the objectives and dimensions of urban governance. Implementing this approach in the urban management system of Iran, including Tehran, seems to require structural reforms in urban management and the tangible involvement of citizens. This research, in terms of its purpose, is applied and conducted using a descriptive-analytical method based on library-documentary studies and field investigations. Given the nature of the data and the inability to control the behavior of influencing variables, the study is non-experimental and carried out within an analytical-case study framework. In terms of nature, it is analytical and exploratory based on modern Futures Studies methods. Qualitative data were collected through open-ended questionnaires, interviews, and document reviews, while quantitative data were obtained numerically through weighted Delphi questionnaires. After gathering the indicators and variables, the interaction matrix was formed in two stages. The indicators were placed in the rows and columns based on exploratory analysis using Micmac software and cross-impact analysis using Scenario Wizard software. Initially, by reviewing theoretical foundations, refining, and drafting relevant indicators according to Table 1, 51 influential drivers were identified with a matrix width of 51×51 based on cross-impact analysis. Using the consensus index model, the importance, certainty, and priority of these drivers for trends and future governance over the next 10 years were determined. The validity of the questionnaire was confirmed by the Delphi group in the pre-test stage with 13 respondents, and the Cronbach's alpha was found to be 0.87%. Since there is no strong and explicit rule regarding the selection and number of experts, and their number depends on factors such as the homogeneity or heterogeneity of the sample, the statistical sample size was determined using the available sampling method. This included 32 experts selected through non-random or purposive sampling, comprising university faculty members, executive and administrative experts from District 20 of Tehran metropolis, and specialists in urban management and future studies.

Given that urban management in Iran's metropolises faces numerous challenges, Tehran metropolis and District 20 are no exceptions and require a new management system to enhance their impact on the city.

**Table 1: Indicators of Good Urban Governance in the Efficiency and Effectiveness of Local Management, Along with Their Initial Coding**

Main Dimensions	participation
EFFICIENCY AND EFFECTIVENESS (E)	Utilizing the Appropriate Capacity of the City (E1) Presence of Skilled and Experienced Human Resources (E2) Effectiveness of City Managers' Actions in Addressing Problems (E3), and Employment of Experienced and Specialized Individuals in Urban Management (E4).
Consensus orientation (c)	Citizen Involvement in Public Affairs Related to the City (C1), Coordination of Programs by Organizations Related to Urban Management (C2), Impact of Mutual Communication and Constructive Interaction Between Public and Private Institutions (C3), Support for the Interests of Various Groups (C4), Collective Mindset and Teamwork (C5), Managers' Awareness of Current Issues (C6), and Utilization of Citizens' Opinions in Problem-Solving (C7).
Accountability (R)	Negative Citizen Reaction to the Lack of Accountability in Urban Management (R1), Accountability of Urban Managers and Officials to Citizens (R2), Accountability of Councils and Explanation of Urban Development Plans and Projects (R3), Encouraging Participation through Accountability of Urban Area Managers in Physical Development Management (R4), and the Role of Public Meetings in Explaining Public Actions (R5).
Equity (J)	Equitable Distribution of Urban Facilities and Amenities (J1), Fairness and Equity in Providing Services to Less Privileged Areas of the City (J2), Prioritizing Collective Interests Over Personal Interests (J3), Establishing Gender Equity (J4), Equity-Oriented Approach of Urban Managers in Various City Issues (J5), Attention of City Managers and Officials to Economic Aspects (J6), and Active Involvement of Urban Managers in the Construction and Physical Management of City Areas (J7).
Participation (P)	Discussion among city managers in decision-making related to city issues and crises with citizens (p1),Citizens' necessary awareness for participating in decision-making processes (p2),The effective role of citizens' decisions in preparing urban development plans(p3) ,The impact of social networks on the participation of civil institutions, cooperatives, and the private sector (p4),City managers' request for citizens to participate in affairs (p5).
Transparency(T)	Drafting clear and unambiguous laws (T1), the role of citizen awareness by urban management (T2), providing transparent information on technical and executive issues (T3), and seeking public opinion on physical and economic plans (T4
Responsible (Re)	The level of responsibility felt by managers during a disaster (Re1), the level of responsibility accepted by citizens (Re2), the empowerment of city residents (Re3), and the selection and meritocracy in choosing urban managers (Re4).
Lawfulness (L)	Implementing appropriate measures and solutions to ensure urban managers act lawfully when needed (L1), the extent to which urban managers adhere to impartiality (L2), neutrality and equality before the law (L3), efforts by urban managers to inform citizens about urban environmental laws (L4), the extent to which urban managers refrain from intervening in the physical environment of the city (L5), the influence of interest groups on the physical development of the city (L6), and the awareness and knowledge of urban management about urban environmental rights and laws (L7).

## **MATERIALS AND METHODS**

### **Governance**

Over the past three decades, good urban governance has been endorsed and emphasized by international and national organizations as a counter-approach to state-centric urban management. It is recognized as one of the prerequisites and characteristics of sustainable cities (Devaney, 2016:6). McLoughlin was among the first to introduce the concept of "Governance." According to him, urban and local governments had reached an impasse because their relationship with civil

organizations, the public, and social groups had been severed. This disconnection and their inefficiency led to new expectations from the public. In fact, people expected to have more active participation in the administration of society, and volunteer groups and the private sector wanted to be involved in these matters (Adibi Saadi Nejad & Ghasempour, 2021:5). In ideal governance, three institutions—government, civil society, and the private sector—collaborate to create a healthy, high-quality city with a high standard of living and sustainable urban development. These three institutions are the same ones analyzed in the urban regime theory (Jamali Haji Hassan Sofli, 2021:98).

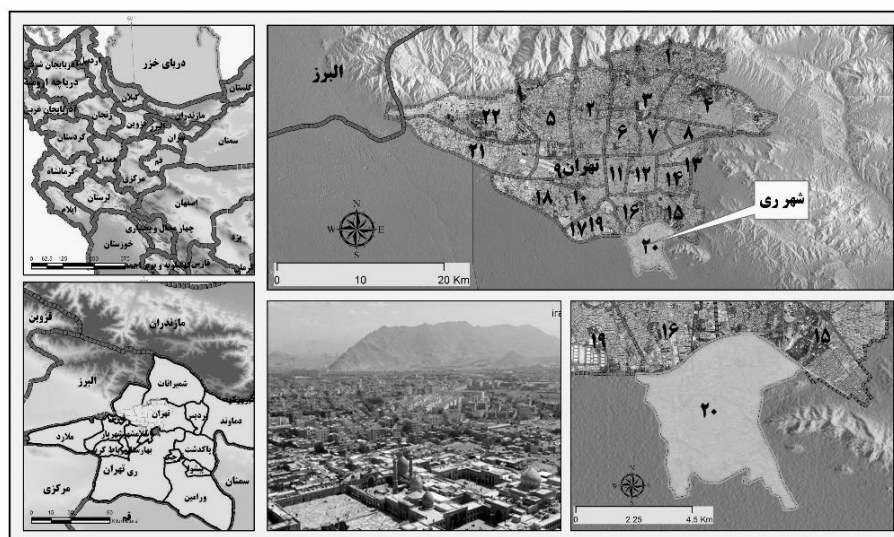
Regarding the indicators of good urban governance, there is a broad consensus on the indicators introduced by the United Nations: 1. Participation, 2. Rule of Law, 3. Transparency, 4. Accountability, 5. Consensus Orientation, 6. Equity and Inclusiveness, 7. Effectiveness and Efficiency, and 8. Responsiveness (Jafari Fard et al., 2020:275-278).

### Futures Studies

Futures studies involve the foundations and methods for examining, deciding, planning, and acting on sciences and techniques related to the future. It considers philosophical thoughts, academic methods, and various models of future exploration and research, using them to draw alternative and substitute futures. Therefore, futures studies are a system for wise and strategic future planning (Jafari & Shari Zadeh, 2019:73). Futures studies encompass various and distinct methods, including a range of quantitative and qualitative approaches. One of the most commonly used methods is cross-impact analysis. This analytical method is used to analyze the likelihood of an event occurring within a predicted collection (Von Briel et al., 2021:17). The more or less certain components and uncertainties of the future can be described with a set of scenarios, and based on that, positions can be taken and planning can be done for the future (Baghban Khiyabani & Ejaz Shokouhi, 2021:29).

### Study Area

Shahr-e Rey, or Ray, is one of the oldest cities in the world. The history of Ray dates back to the time of the Aryan tribes (Iran Statistics Center, 2016). Shahr-e Rey is located in the south of Tehran and is connected to the city. According to the 2016 census, the population of the county is approximately 349,700 people (Khan-Mohammadi et al., 2021).



**Figure 1. Geographical Location of District 20 of Tehran (Shahr-e Rey) - Illustrated by the Authors (2022)**

## Research Findings

### Identification of Drivers Affecting Good Governance and Formation of Cross-Impact Matrix

Subsequently, within the framework of the cross-impact matrix, the Delphi group was asked to assign a score ranging from 0 to 3 to each driver based on the process of influence and being influenced (pairwise comparison) among the drivers. A score of 0 indicates no influence, 1 indicates low or negligible influence, 2 indicates moderate influence, 3 indicates high influence, and the letter P signifies potential influence in the process of direct and indirect mutual influence of each driver. The cross-impact analysis method is an expert-driven technique that provides quantitative results. This method relies on impact matrices to assess the stability or instability of the system. If identifying the subject is the first step in scenario planning, compiling a list of key factors affecting the subject is the second step. At this stage, the Delphi group was asked to identify the most important key factors affecting the trends and future of good governance in District 20 over the next 10 years. By identifying the initial components and drivers affecting the subject, based on the findings of the Delphi method and interviews with experts and executive officials, 51 key drivers were identified among the secondary drivers in the eight dimensions of governance: Participation (P), Consensus Orientation (C), Responsiveness (R), Equity (J), Rule of Law (L), Transparency (T), Effectiveness and Efficiency (E), and Accountability (Re). These were organized into a 51×51 matrix based on cross-impact analysis. These drivers were designed and developed based on the results of questionnaires and the logical process of indexing, based on consensus and certainty indices, priority, and importance of questionnaire information, including environmental criteria and macro trends. By identifying the initial components through the Micmac software, the cross-impact matrix was formed using expert opinions. Pairwise scoring of the indices was done based on their level of influence and being influenced, ranging from 0 to 3, to determine the importance of each. To ensure the reliability of the data, the number of repetitions was increased to three times, achieving acceptable reliability at this level. According to the data, the filling index is 97.68%, indicating high interconnectivity and influence among the variables. This high coefficient is mainly due to the role of various factors at the regional-local levels and the characteristics of District 20, resulting in some variables having more or less influence on each other. Based on the 2632 calculated values in the initial cross-impact matrix, 758 cases were evaluated as having high influence, 1359 cases as having moderate influence, 468 cases as having low influence, and 47 cases as having no influence.

### Initial Ranking of Drivers Based on Direct Influence and Influenceability

Based on the cross-impact matrix, the sum of the rows indicates the level of influence, and the sum of the columns indicates the level of influenceability of the top 10 drivers. Table 2 shows the influence and influenceability of each component. The system studied in this research has a specific structure that offers less control by the actors. As observed, from ranks 1 to 10 in both columns, exactly half of the drivers have a small difference in influence and influenceability.

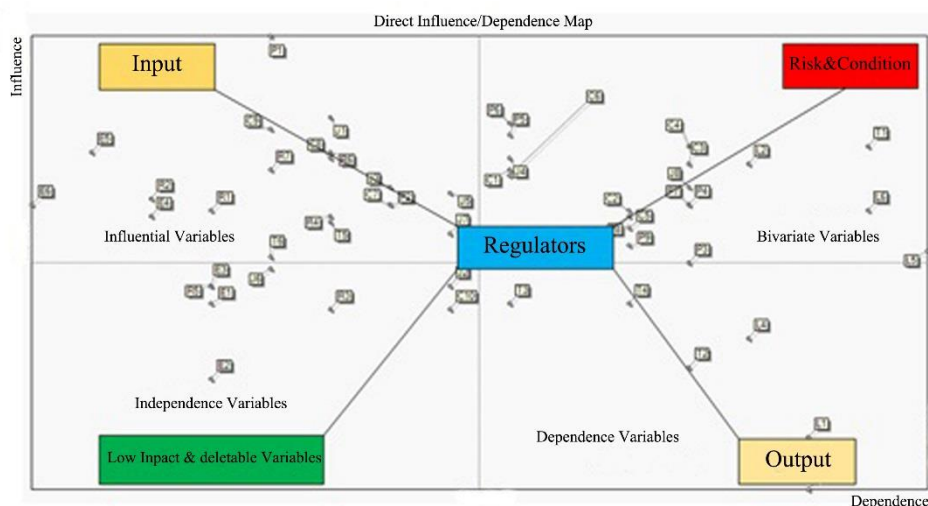
**Table 2: Ranking of the Direct Impact and Influence of the Top 10 Drivers**

Rank	Initial Coding	Driver	Influential	Rank	Initial Coding	Driver	Affected
1	3	Accountability of councils and explanation of urban development plans and projects	983170	1	32	The Role of Citizen Awareness by Urban Management	936586
2	14	Supporting the interests of more groups	976341	2	21	The Impact of Social Networks on the Participation of Civil Institutions,	924615

						Cooperatives, and the Private Sector	
3	27	Selection and meritocracy in the appointment of urban managers	960916	3	20	Requests from Urban Managers for Citizen Participation in Affairs	915461
4	43	Providing transparent information on technical and executive matters	956886	4	25	The Level of Citizen Responsibility	907753
5	50	Integration between entrepreneurship and urban economic management	950886	5	31	Justice-Oriented Approach of Urban Managers in Various City Issues	901526
6	20	Establishing gender equality	943559	6	26	Empowerment of City Residents	896815
7	42	Impact of mutual communication and constructive interaction between public and private institutions	917409	7	2	Establishing Gender Equality	896664
8	52	Attention to the tourism business sector	914803	8	3	Providing Transparent Information on Technical and Executive Matters	896605
9	46	Utilizing citizens' opinions in solving problems	912843	9	27	Selection and Meritocracy in the Appointment of Urban Managers	888529
10	49	Focus on entrepreneurship and urban economic development	907004	10	1	Drafting Clear and Unambiguous Laws	887288

**Analysis of the Influence and Influenceability of Variables Based on Direct Relationships**

Each variable, considering the criteria of influence and influenceability, is positioned in a specific location according to Figure 2 (chart). The appropriate status of the variables in the chart indicates their role in the system and their function in the dynamics and transformations of the system in the future. Overall, these variables are classified into four categories as follows:



**Figure 2. Cross-Impact Plan of Variables**

1. Influential Variables: These variables have higher influence and lower influence ability. The system relies more on these variables, which are always located in the northwest part of the chart.

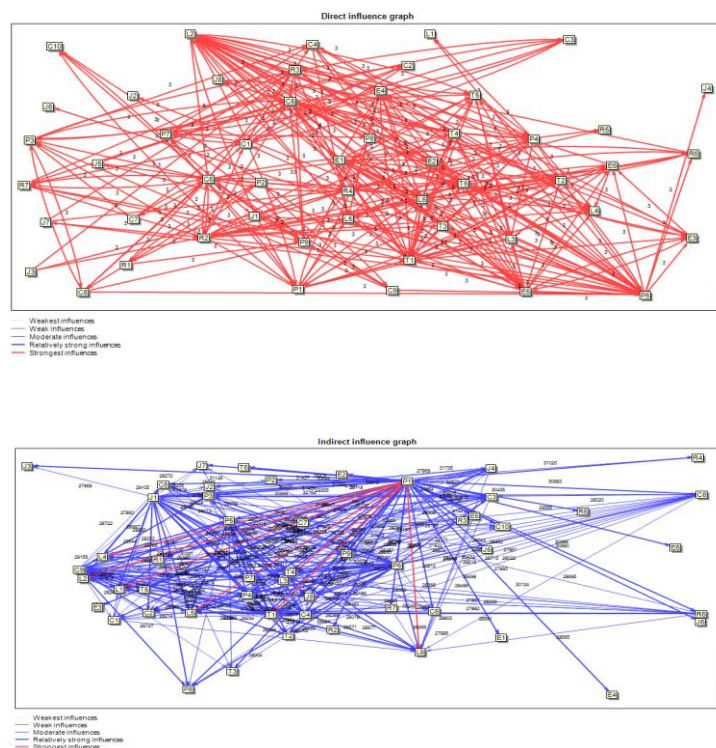
Influential variables are turbulent elements because the system's transformation depends on them, and the degree of control over these variables is crucial. On the other hand, they are considered input variables. Typically, these variables are environmental and significantly impact the system. Generally, they do not control the system, which is why they exist outside of it and act as a factor of stability (inertia). There are 14 drivers in this section.

**2. Dual-Aspect Variable:** These variables have high influence and influence ability and are located in the northeast part of the chart, associated with instability. Therefore, any change triggers other reactions and transformations. These outcomes and reflections have an effect that ultimately reinforces the initial effect and signs. Variables are divided into two categories: risky variables and goal-oriented variables. In the first category, the chart is located on the diagonal line of the northern area, with high capacity and readiness for exchange with key players. Due to their unstable nature, they can become "system breaking points." In the second category, goal-oriented variables are located below the diagonal line of the northeast area of the chart. In this category, the variable is more influence able and can be identified as a sign of the system's completion results. When these variables are manipulated and changes occur, the system moves towards desirable outcomes. Therefore, before showing predetermined results, these variables represent "feasible goals" in the system. There are 16 important drivers in this area.

**Influence able or Dependent Variables:** These variables are located in the southeast part of the chart and have less influence but are highly influence able. They are more sensitive to the completion of influential and dual-aspect variables. According to Figures 3 and 4, they are considered system outputs. There are 6 drivers in this range.

**4. Independent and Distinguished Variables:** These variables neither influence nor are influenced by other variables and are located in the southern part of the chart, having minimal relationship with the system. Therefore, they cause a halt in a main variable and prevent the progress and development of the variable in the system. Variables are categorized into discrete or separated variables and secondary leverage variables. Discrete variables are located at the origin of the chart coordinates, indicating no dynamic and active connection or changes in the system, and can be excluded. Secondary leverage variables, although completely independent, are more influential than influence able. They are located in the southwest part of the chart, above the diagonal line, and can be used as points for measurement and as criteria. Regulatory variables are located around the center of gravity of the chart. These variables can act as "secondary levers," "weakened goals," or "secondary risk variables." There are 8 drivers in this range.

**Strategic Variables:** These variables operate in two ways: they can be controlled and manipulated, and they can also influence the dynamism, activity, or change of the system. However, due to their significant influence, they can lead to a lack of control and cannot be considered purely strategic variables. In this context, if we consider a coordinate grid, they are located in region 2, where planners can rarely change the variables. Variables displayed in region 3 of the coordinate grid have little influence and influence ability in the system and cannot be considered strategic variables. Similarly, variables in region 4, due to their high dependency on other variables, do not have strategic properties and are mostly the result of other variables. However, variables in region 1 of the coordinate grid are strategic variables; therefore, they are controlled, have a management system, and have an acceptable level of influence on the system. In reality, the closer we move from the end of region 3 to the end of region 1 on the coordinate grid, the more the importance and strategic nature of the variable increases. Figure 3 shows the direct and indirect impacts among the 51 drivers, categorized into five levels of influence: weakest impacts, weak impacts, moderate impacts, strong impacts, and indirect impacts or influence ability among the target drivers, which also have the aforementioned five levels.



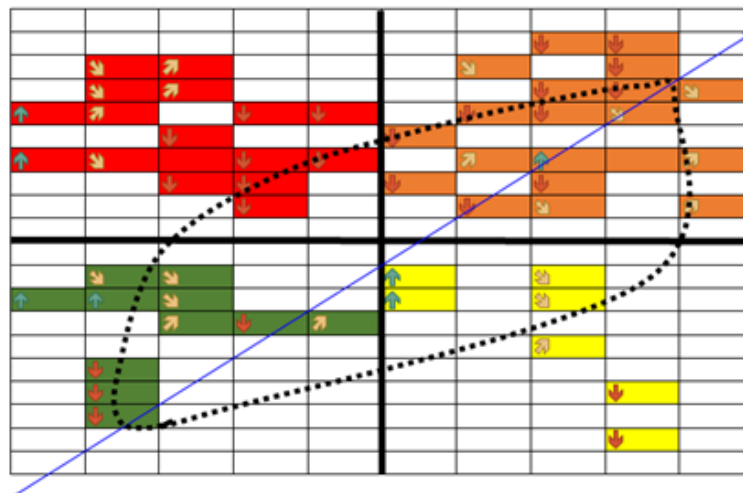
**Figure 3. Impact Cycle Plan of Direct (Red) and Indirect (Blue) Effects between Factors and Relationships between Factors**

Since the influence of each variable on another is exerted through both direct and indirect effects, the distribution of variables on the influence and influence ability plane changes based on the level of direct and indirect influence and influence ability, and there is a possibility of variable displacement. The output of the Micmac software for variable displacement, shown in Figures 3 and 4, indicates that based on indirect relationships between variables, the influence power of influential variables has decreased, as most variables in region 2 have shifted downwards on the coordinate grid. Regarding the influence ability of variables in region 4, the predominant displacement of influence able variables towards the bottom right indicates an increase in their influence ability power. Given that for indirect effect calculations, the software raises the matrix to a power multiple times, the sum of indirect influences and influence abilities results in multi-digit numbers, making comparison with direct effects difficult. To address this issue, the software provides a table of factor shares based on direct and indirect effects on a scale of 10,000. Accordingly, the total influence and influence ability are calculated as 10,000, and the share of each factor from this number indicates its share of the entire system. In Table 3 and Figure 4, the share of drivers from the total influence and influence ability based on direct and indirect effects is shown. As observed, 16 drivers in the influence column have the highest share in direct influence, with 8 variables also recurring in indirect influence with slight displacements. Only the variables “public consultation on physical and economic plans” moved from rank 31 to 20, “focus on smart urban economy” from rank 12 to 9, and “equitable distribution of urban facilities and amenities” from rank 5 to 7. Additionally, the variable “coordination of programs of organizations related to urban management” moved from rank 8 to 6, and the variable “lack of comprehensive view on municipal revenue sources” moved from rank 10 to 12. In influence ability, 14 drivers from the 6 drivers in the direct influence ability column are the same drivers with changes in ranking in indirect influence ability.



**Table 3: List of Drivers with the Highest Share in Direct and Indirect Impact and Influence**

Rate	Driver	Direct Influence	Driver	Direct Effectiveness	Driver	Indirect Influence	Driver	Indirect Effectiveness
1	P1	250	L5	205	P1	248	L5	205
2	J1	225	L6	204	J1	223	T1	203
3	P6	223	T1	204	P6	222	L6	203
4	C9	221	L1	202	C9	220	L3	201
5	P5	220	L3	202	P5	220	L1	201
6	C4	216	L2	200	C4	215	L4	200
7	T1	216	L4	200	C8	213	L2	199
8	R6	214	P3	198	T1	212	P3	198
9	E5	214	P4	198	R6	212	P4	198
10	C8	212	P7	198	J4	212	P7	198
11	J4	212	C3	198	E	211	C4	198
12	C3	211	C4	198	C3	211	C3	198
13	L2	211	J8	198	L2	210	T2	198
14	C1	209	T2	198	R7	210	J8	198
15	R7	209	P8	196	C1	209	P9	197
16	C6	207	P9	196	C6	208	C2	197
17	J3	204	C2	196	J5	202	P8	197
18	J8	204	C5	196	J8	202	C5	197
19	J5	202	T4	196	J3	202	T4	196
20	R2	200	P5	193	P7	200	C1	193
21	P2	198	P6	193	R2	200	P5	193
Etc	Etc	Etc	Etc	Etc	Etc	Etc	Etc	Etc
51	L1	127	E5	180	L1	129	E5	181



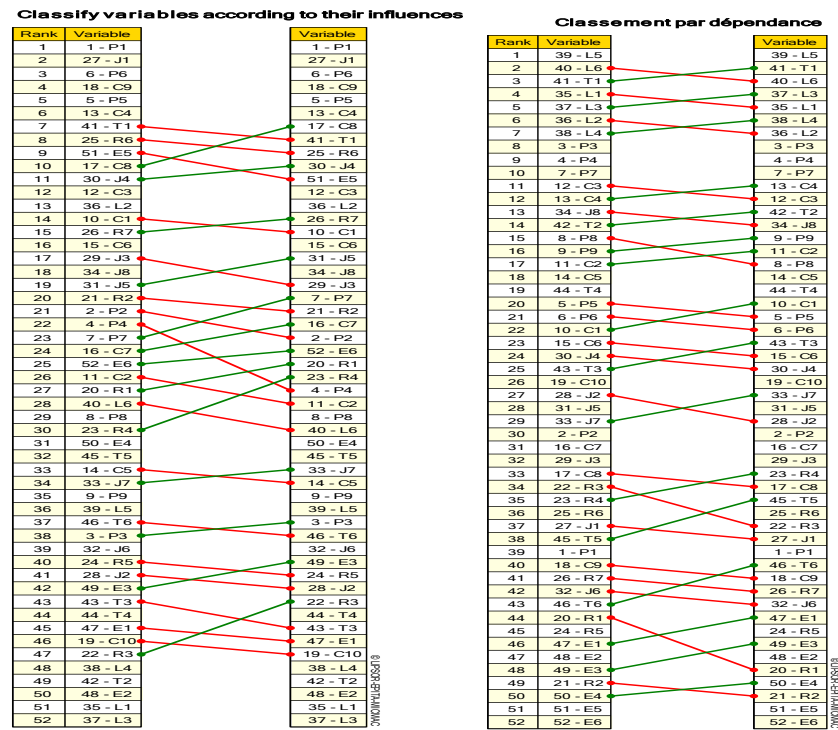
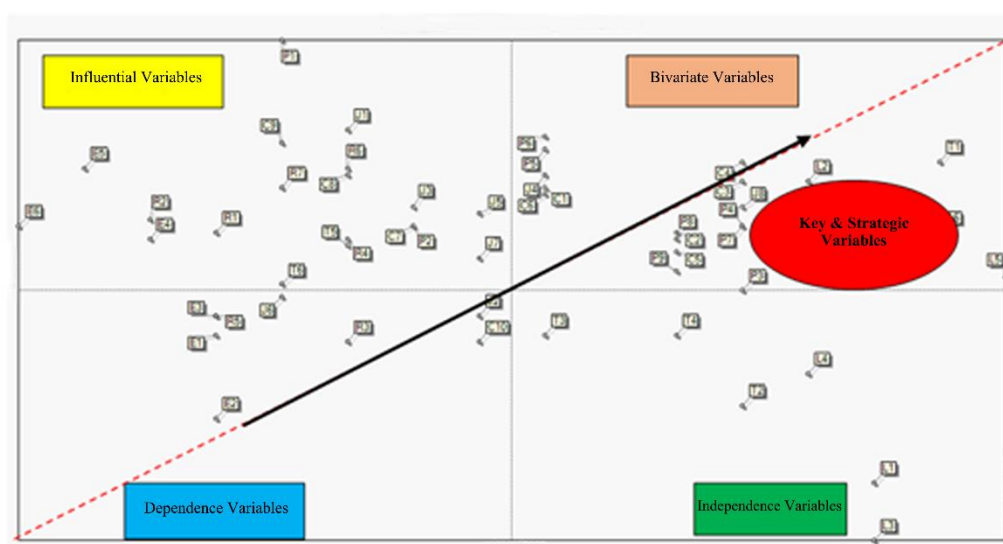


Figure 5. Map of variable displacement based on direct and indirect effects according to the variable codes.

Based on the matrix of direct and indirect potential influence and dependency, it can be said that the three drivers: providing transparent information on technical and executive issues (P1), council accountability and explanation of urban development plans (J1), and meritocracy in selecting urban managers (P6), rank first in direct and indirect influence. Meanwhile, the three drivers: requests from urban managers for citizen participation in affairs (L5), the justice-oriented approach of urban managers in various city issues (L6), and the impact of social networks on the participation of civil institutions, cooperatives, and the private sector (T1), rank first in direct and indirect influence ability. According to the findings in Figure 6, the key driving forces in terms of influence and influence ability are presented. In this regard, considering the 51 overall variables examined, 51 key driving forces are also presented in order of importance from highest to lowest. Based on this, the variables or drivers of managers' awareness of current issues (L1) and the use of experienced and specialized individuals in urban management (L3) have the least direct influence, ranking last. The drivers of utilizing a desirable management approach (E5) and council accountability and explanation of urban development plans (E6) have the least direct influence ability. Evaluating the influence and influence ability distribution and dispersion of variables on the scatter plot indicates the system's stability and instability. In the cross-impact analysis with Micmac software, there are two types of dispersion. In stable systems, the dispersion of variables forms an English L shape, meaning some variables have high influence and some have high influence ability. In stable systems, there are also three categories of highly influential variables, independent variables, and system output variables. In unstable systems, variables are scattered around the diagonal axis of the plane and often have an intermediate state. In unstable systems, there are influential variables, dual-aspect variables (risk and goal variables), regulatory variables, influence able or system outcome variables, and independent variables. The status of the scatter plot of variables affecting the future management of District 20 indicates a relatively unstable system. Most variables are scattered around the diagonal axis of the plane. Except for a few factors indicating high influence, the rest of the variables have a similar status. According to Figure 6, it is confirmed that the factors of consensus orientation (c), efficiency and effectiveness (E), participation (P), transparency (T), accountability ®, rule of law (L), and justice (J) are influential in the unstable transformation trends of District 20. Continuation of the current

situation will lead to a catastrophic scenario, and at best, if the current situation continues, changes in the existing management system will result in parallel work, lack of a regular and coherent program, lack of inter-organizational coordination, reduced social capability, lack of local economic strengthening, reduced citizen participation, decreased private sector investment, and reduced physical oversight of built spaces.

The evaluation results, while highly consistent with the realities surrounding the changes in the urban management system of District 20, indicate that within the framework of foresight studies and using the scenario planning approach, one can assess the overall status of factors such as participation (P), consensus orientation (c), accountability ®, justice (J), rule of law (L), transparency (T), and efficiency and effectiveness (E). The stability or instability pattern can also be derived from the spatial distribution of variables in the charts and outputs from the Micmac software. Additionally, the relatively high filling coefficient (97%) in the research variables confirms the validity and reliability of the research tools at a relatively high level. Therefore, this study, while assessing the direct effects of variables, also considers the indirect and potential influence-dependency dimensions of variables in the spatial arrangement of variables and the formulation of key driving forces and final scenarios.



**Figure 6: The Stability and Instability of the Governance System in Region 20 Based on Future Developments.**

The analysis of data related to the different states of factors such as participation (P), consensus orientation (c), accountability ®, justice (J), rule of law (L), transparency (T), efficiency and effectiveness (E), and other influential components on the urban management transformation trends of District 20 suggests the likelihood of 10 scenarios occurring before others. The probability of other scenarios occurring is considered very low and weak. Scenarios are derived from interactive states and factors related to other states. The occurrence of one state affects the likelihood of other states occurring, strengthening, empowering, or even limiting them. This forms the basis of scenario formation, which involves very complex factors and states that are beyond human capability to analyze and interpret simultaneously, requiring intelligent processors.

### **Explanation of Probable States of Main Factors and Scenario Basket Analysis**

In the next stage, the probable states of governance in District 20 for each main factor were identified. Experts in urban management were consulted for this purpose. Ultimately, after reviewing the results, 51 probable states were identified for 8 main factors. After designing the

probable states, a cross-impact matrix was prepared, creating a 51\*51 matrix. Similar to the previous stage in determining the main factors, a detailed questionnaire was provided to experts. They were asked to evaluate the impact of each of the 51 governance evaluation states on the occurrence or non-occurrence of other states. The questionnaire was completed based on three characteristics: enabler, neutral, and limiter, with the impact of each state on the system specified by scores ranging from 3 to -3. Data Collection and Scenario Wizard Application With data collected by urban management specialists, the use of the Scenario Wizard software became feasible. It is expected that combining 51 states for 7 factors will yield at least 229 million composite scenarios, encompassing all possible future scenarios for the management of District 20. However, these results are purely statistical and do not facilitate analysis, policy-making, or planning. Scenario Analysis Based on the questionnaire data analysis, 8 strong or probable scenarios, 13 highly compatible or believable scenarios, and 4231 weak scenarios were evaluated. The results indicate that there are 8 scenarios with a very high likelihood of occurrence under the good governance conditions of District 20. The software does not emphasize selecting scenarios from various spectrums but designs scenarios based on positive and negative influencing relationships. Therefore, the selected scenarios can be either highly desirable or highly critical. Weak Scenarios The 4231 weak scenarios identified in this study seem impractical and illogical for policy-making and planning. Thus, it is reasonable to consider the 13 compatible scenarios for planning and policy-making, which were deemed logical and reasonable for the research.

Efficiency & Effectiveness	Clearness	Legality	Justice	Responsiveness	Axial Consensus	Participation	Factors Scenarios
0	1	1	1	1	1	0	1st Scenario
1	1	1-	1	1-	1	1	2nd Scenario
1	1	1-	1	1-	1	0	3th Scenario
0	1	1-	1	1-	1	1	4th Scenario
0	1	1-	1-	1	0	1	5th Scenario
1	1	0	1	0	0	1	6th Scenario
0	1	1	1	1	0	0	7th Scenario
0	0	1	1	0	0	1	8th Scenario
1	0	0	1	0	1	1	9th Scenario
0	0	1	1	0	0	1	10th Scenario
1-	1	1-	1-	1	1	0	11th Scenario
1-	1	1-	1	1-	0	0	12th Scenario
1-	1	1-	1	1-	0	1	13th Scenario

**Table 4: Status of Each Factor by Scenario and the Spectrum from Ideal to Crisis.**

### Grouping and Analysis of Selected Scenarios

In total, there are 13 believable scenarios for the good governance of District 20, with most scenarios being in a favorable state, indicating a promising outlook for urban management. Out of 237 states governing the scenario page, 114 states (48.10%) are favorable, 71 states (29.96%) are static, and 52 states (21.94%) are critical. This distribution shows that nearly half of the existing states on the scenario page are favorable, followed by static states, and finally, critical states with the least proportion.

## CONCLUSION

In evaluating the overall related factors and the final ranking of macro-environmental and managerial trends, the highest score was achieved. The World Bank has identified urban management (government institutions and laws) and environmental construction as the core in the

cycle of efficient urban management. This factor is introduced by experts as the most important in creating a desirable urban environment. In District 20, due to issues such as improper land use distribution, lack of a unified model for access to urban services, high percentage of dilapidation, health and educational deficiencies in some neighborhoods, uneven physical development due to high immigration rates, density and insecurity, inadequate housing, low urban service per capita, presence of numerous factories and industries, and noise and air pollution from their emissions in the environmental sector, as well as a centralized administrative system, oil-dependent economy, lack of balance and planning, uncontrolled migration to District 20, and the formation of informal settlements in the managerial sector, achieving the main governance indicators in relation to existing studies and evidence in District 20 is very challenging. Given the subject under review, no specific research has examined this topic so far, thus limiting the comparison of this study's findings with previous research. UN Report and Governance Promotion According to the UN report, the most crucial factor after urban management for improving and promoting the foundations of good governance is the physical factors and the quality of the urban environment. If this factor faces challenges, achieving the dimensions of good governance in District 20 becomes practically impossible. The research findings also identified macro-environmental and physical trends as the main obstacles to achieving this goal, aligning the present study's results with higher-level reports. Decentralization and Equitable Service Distribution The second factor for promoting and achieving good urban governance is the absence of centralization, justice in the distribution of essential services, and equal access from the perspective of urban management. Centralization, top-down planning, and prioritizing macro-structures hinder this goal in District 20. This issue is also highlighted in the present study, where experts noted the neglect of dilapidated areas in macro-planning without considering local characteristics and the spatial and demographic structure of District 20, as well as the concentration of services and facilities in certain city areas. Social participation is another factor in achieving good urban governance. In the present study, this aspect was highlighted by experts under the indicator of low social participation at the city level, indicating alignment with previous research findings. Equal Opportunities and Governance Equal opportunities are a key driver for achieving and promoting urban governance, and their absence acts as a deterrent. Factors such as lack of access to adequate housing, unavailability of healthcare centers, shortage of cultural centers, unequal opportunities across the city, lack of access to suitable public transportation, and gender inequalities in the city act as deterrents. Access to basic amenities and suitable public transportation are other important factors highlighted in this study, and their absence is considered a deterrent. Concentration of services and facilities in a few areas, lack of adequate public transportation for all citizens, and insufficient infrastructure are among these issues. Governance Challenges One of the most significant obstacles to achieving good governance is weak governance, lack of appropriate institutions, and corruption, leading to disregard for the law, neglect of private property, excessive bureaucracy, and corruption. This issue was also noted by experts in this study. Issues such as lack of transparency in the costs and revenues of District 20, reduced private sector investment power, low oversight of municipal performance, inadequate accountability of agencies, lack of integrated urban management, dependency of municipal revenues on government income, lack of citizen access to data and information, and lack of sustainable income for the municipality were highlighted. Infrastructure and Social Issues Lack of infrastructure and facilities is another major obstacle to achieving good governance, and this has been considered as one of the key drivers. Inadequate infrastructure in some city areas, lack of adequate public transportation for all citizens, shortage of cultural centers, and weak and unskilled human resources concentrated in certain areas and departments are significant issues. The lack of specialized personnel in urban management and the concentration of specialists in a few executive bodies, resulting in a shortage of specialists in city areas, were also noted. Additionally, social problems and high rates of social issues were highlighted in this study. Issues related to social problems mentioned by experts include high social problems. Although the distribution of amenities and services in District 20 neighborhoods is not balanced and coordinated, and the overall amenities and services are not satisfactory compared to other areas of Tehran. Lack of Foresight in Urban Management The lack

of foresight in the urban management and governance system of this district in Tehran, coupled with its unpreparedness for future crises, results from the inefficiency of the physical, biological, economic, and social structures of District 20's areas and neighborhoods. According to futurists, this crisis-prone state is likely to persist and recur in the future, amid political, economic, social, and environmental complexities and risks.

---

## **REFERENCES**

1. Amirentekhabi, Sh., Hosseini, S. A., & Misami, S. (2020). Analysis of the relationship between good governance and urban entrepreneurship development (Case study: Rasht city). *Geographic Engineering of the Land*, 4(1), 224-206.
2. Adibi Saadi Nejad, F., & Ghasempour Arash, A. (2021). Designing a causal model of the impact of managers' organizational silence on urban governance in Iran (Case study: District 3 Municipality of Tehran). *Quarterly Journal of New Research Approaches in Management and Accounting*, 5(56), 1-21.
3. Baghban Kheyabani, S., & Ajza Shokoohi, M. (2021). Identifying factors affecting sustainable urban development in Mashhad with a foresight approach (Case study: Urban areas 1 and 2). *Physical Development Planning*, 8(3), 25-40.
4. Pourmousavi, M., Eghbal, M. R., & Khoshkhan Jalal, J. (2015). "Examining the feasibility of crisis management indicators in the detailed plan (Case study: District 20 Municipality of Tehran)". *Journal of Spatial Analysis of Environmental Hazards*, 2(2), 31-17.
5. Taghvaei, A. A., & Tajdar, R. (2009). "An introduction to good urban governance in an analytical approach", *Urban Management Quarterly*, 7(23), 45-58.
6. Jafari, F., & Sharizadeh, A. (2019). Identifying key factors affecting housing prices with a foresight approach (Case study: Tabriz metropolis). *Geography and Planning Journal*, 23(67), 67-89.
7. Jamali Haji Hassan Sofla, A., & Nematollahi Benab, S. D. (2021). Examining and evaluating the role of citizens and their social participation in achieving urban sustainable development goals (Case study: Tabriz city). *Urban Environment Policy*, 1(1), 95-112.
8. Jafari Fard, J., Saberi, H., Azani, M., & Khadem Hosseini, A. (2020). Analyzing good urban governance indicators (Case study: Kahnuj city). *Urban Social Geography*, 7(1), 273-291.
9. Khan-Mohammadi, E., Sarvar, R., & Estalaji, A. (2021). "Developing future scenarios for informal settlements in the southern fringe of Tehran metropolis". *Regional Geography and Planning Quarterly*, 11(3), 423-447.
10. Shauri, M., & Nouhadi, R. (2018). Ways to provide sustainable income for municipalities in Iran. *Geography and Human Relations*, 1(3), 325-334.
11. Rezaei, M., & Shamseddini, A. (2019). Analyzing the relationship between good urban governance and social justice in urban spaces (Case study: Ferdowsieh city – Shahriar county). *Environmental Planning*, 12(45), 25-48.
12. Salahi Hossein, R., Taghvaei, M., & Zarabi, A. (2019). Analyzing influential indicators on the implementation of integrated urban management (Case study: Tehran metropolis), *Urban Management*, 18(54), 261-282.
13. Statistical Center of Iran (2016), General Census of Population and Housing of Tehran Province by Urban and County Points.