

Journal of Urban Management and Energy Sustainability (JUMES)

Homepage: <http://www.ijumes.com>



ORIGINAL RESEARCH PAPER

Analyzing the theories for and against metropolitan development and its application in the regional development of Iran ¹

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ARTICLE INFO

Article History:

Received 2022-05-14

Revised 2022-08-19

Accepted 2022-11-14

Keywords:

The role and function of the metropolis
regional development
favorable and opposing theories
metropolis
Iran

ABSTRACT

The situations of metropolises have always been the focus of urban and regional policies due to their different roles and functions. But its advantages and disadvantages have always been ambiguous in the regional dimension. Based on this, each society with its geographical requirements in terms of metropolitan development is on its specific path of regional development and faces its specific challenges and obstacles in this path. The purpose of this research is to determine the role and function of Iranian metropolises in regional development. The template paradigm in this research is based on critical theory. The method of gathering the data and information needed for the research has been done through documentary studies, questionnaires, and interviews, and the necessary analyzes have been done through the method of Meta-study and consensus of opinions. According to the approaches of the critical paradigm, in this research, quantitative and qualitative methods, focused interviews, deep interpretation and understanding of events, investigation of hidden social mechanisms, development of theoretical models of hidden constructions and Processes in society and the method of Meta-analysis are used to deeply understand the issues. The results of the research show that among the economic functions, the way of income distribution and among the social functions, human aspects, workforce and youth of the population, and among environmental functions, climatic conditions have the greatest impact on regional development. The results of the research, including the analysis of the theories in favor and against the metropolises and the views of other different experts concerning the regional development process, axes, intellectual foundation, topic, and approaches of regional development, should be based on The intermediate point of view and the use of the relative benefits of all points of view based on interaction and intellectual discourse and taking into account spatial, spatial dimensions and territorial justice for all territorial areas (including metropolises, small and medium cities and villages) should be done together. Also, in the suggestions section, the type of approach, program, planning, program coverage, program scope, program preparation process, program implementation process, program level, and the role of the planner in the regional development of Iran has been presented.

DOI: [10.22034/ijumes.2022.563584.1091](https://doi.org/10.22034/ijumes.2022.563584.1091)

Running Title: Metropolitan Development and its Application



NUMBER OF REFERENCES

50



NUMBER OF FIGURES

01



NUMBER OF TABLES

03

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Running Title: This article is extracted from the doctoral dissertation of the first author entitled "Explaining the position and functions of metropolitan areas in the regional development of Iran" which was carried out under the guidance of the second author and the consultation of the third author in the Urban Planning Department of the Islamic Azad University, Tehran South Branch.

1- Introduction

Spatial patterns and population are two components that influence the regional development process, and by analyzing the relationships between them, it is possible to address the integration of metropolitan areas at the national level. (Venugopal et al, 2016) The development in metropolitan areas is towards decentralization (Angel & Lopez, 2010). The continuation of this trend can be a serious challenge for the socio-economic structure and especially for the natural and biological environment of the region because the land developments made on the regional scale affect the structure of the settlement and cycle. It affects life (Luck & Vu, 2002) and transportation structure, land use, social and economic structure, and the sustainability of the natural environment and causes negative consequences such as the loss of natural lands, environmental pollution, poverty, and economic problems (Mansourian, 2015) widespread and unplanned migrations and increasing inequality of distribution in metropolitan areas.

These functions have resulted in conflict in some cases in the social and economic dimensions and in some other cases, they have created harmony between the population and the environment. Overall, they have acted in the balance of social, economic, and environmental dimensions or have been effective in opposing these dimensions.

In other words, how the development strategy of metropolitan areas should be to reduce the negative effects of the development of these areas and increase its positive effects. On the other hand, the profitability of short-term effects of development should not come at the cost of destroying its long-term effects and bringing sustainable urban and regional development. The goal of sustainable development is to reduce the consumption of energy and raw materials, limit the production of greenhouse gases, minimize waste and pollution, and protect the ecosystem, which will reduce the environmental effects and ultimately make economic development

environmentally, socially, and economically sustainable. (Fanni and Morasafar, 2021).

Besides the disadvantages they have on the sustainable development of the land, in which areas metropolitan areas can create relative and competitive merit. This is something that is unknown and should be clarified. Besides these cases, the uncontrollable physical-spatial growth of metropolitan areas has led land development policies to focus on vertical growth in the height of these areas, which in turn complicates this issue. Added Therefore, what can reduce the confusion of land development policies and move the fate of metropolitan areas towards sustainable development is paying attention to the effects of the development of metropolitan areas concerning land use on the one hand and clarifying the correct aspect of a metropolitan area in the settlement structure on the other hand.

Therefore, the purpose of this research is to explain the role and function of metropolitan areas in the regional development of Iran. For this purpose, the theories in favor and against the development of metropolises are examined first. After summarizing the various theories of regional development, Iran's metropolises are evaluated in terms of their function and level of development indicators. After analyzing the results of the review of the views of regional development and the function of the country's megacities, the role and function and how to look at the megacities in Iran's regional development programs are determined. In fact, the goal of the research in the theoretical aspect is how to look at the megacities in the regional development plans, and in the practical aspect, it is to determine the role and function of the megacities of Iran in the regional development of Iran.

The main research question is what is the role and function of Iran's megacities in Iran's regional development? And based on the main question of the research, the sub-question of the research is what metropolitan functions affect the regional development of Iran?

2- Background and theoretical foundations

2-1- Background research

The background of the research in two parts includes regional development research and investigation of the level of development of the country's big cities, which is presented based on domestic and foreign examples;

Mosayebzadeh, Mozafarinia, and Shabestar (1400) in a research paper entitled "Analysis of spatial inequalities and assessment of regional development in Iran's provinces" have concluded that Iran's spatial organization has become multi-level and the provinces that have poles are developing in terms of development indicators, they are cut off from their downstream regions, and with a partial focus on attracting capital, population and industry, they have caused spatial imbalances within and outside the region.

Khodapanah et al. (1400) in a research paper titled "Identification of institutional barriers to the development of regional entrepreneurship in Iran; A critical approach to the historical system of entrepreneurship policy-making" has concluded that the main root of the lack of development of entrepreneurship in Iran should be examined in the passage of history and the unfavorable business environment in the current time is not the only reason for the lack of development of entrepreneurship in the country. The most important institutional barriers identified in the reviewed texts can be categorized into 6 main categories: administrative, economic, social and cultural, legal and regulatory, political and personal-cognitive, and part of these barriers (administrative, economic, legal-regulatory, political) is placed in the category of official institutions and another part (social-cultural and cognitive-personal) is placed in the category of informal institutions.

Alinejad et al. (1400) in a research paper entitled "Classification of Iran's provinces from the perspective of regional knowledge-based economy index using K-means, C-means, and fuzzy clustering algorithms" has concluded that following the emphasis on the necessity Realization of the knowledge-based economy in the upstream planning documents, so far

scattered efforts have been made in this regard. The twenty-year vision document and the general policies of the resistance economy are among the most important of these documents; But without having a correct picture of the existing situation, any attempt at planning will not achieve much. Accurate assessment of the state of the knowledge-based economy in many developing countries is difficult due to the lack of required data. International indicators are not helpful in this regard.

Hay et al. (2020) concluded in their study that regional inequality is primarily shaped by the regional institutional context and is particularly related to the triple decentralization process of globalization and Marketing.

Marchan et al. (2020) have concluded that the increase in inequality at the national level is associated with inequality between regions. The difference in the level of economic development due to the decline in labor market conditions is one of the main factors in creating regional inequality, and regions with more production activities usually have They have less inequality.

Corvers et al. (2021) also concluded in the article Regional Inequalities, Causes and Treatments that there are significant regional inequalities in terms of income and wealth in Western European and North American countries, but their amount varies from country to country. Is.

Cristina et al. (2021) in a research paper entitled "Regional Development in Romania: Empirical Evidence on the Measuring Factors of a Prosperous and Sustainable Economy" concluded that the biggest challenge in achieving sustainable development goals is through the implementation of policies Effective public research in the field of research is the responsibility of the government, which is carried out through its institutions with the aim of providing measures to fight poverty at the national level. Some of the key measures in this regard are; Increasing the employment rate, reducing early school leaving, expanding national health programs, reducing the urban and rural poverty gap, reducing the minimum income, increasing the family support allowance,

and providing the minimum income and other things will help to reduce poverty and increase development.

Based on the research, what is evident is the existence of spatial inequalities in the country's megacities and also in some foreign examples. There are different views regarding the role of megacities in regional development. Some views consider the basis of development from the top down, while some theories believe in the development from the bottom up and call the development of megacities leading to polarization.

The innovation of this research compared to similar research, in the theoretical dimension, presenting how to look at the problem of megacities in regional development programs and examining the theories for and against metropolitan development in upstream programs including land use planning and regional development programs is Therefore, what is important is that the role of megacities in upstream development programs has not been clearly investigated and determined in previous researches. In the practical dimension, it is to determine the role of Iran's megacities in regional development planning, so that to determine how to explain and examine the country's megacities in upstream programs.

2-2- Theoretical Foundations

2-2-1- Regional development

Regional development is a continuous process and planning that requires operations and actions that are closely related to sustainable and multidimensional development, in other words, regional development is bottom-up planning that requires the participation of private and social sectors. It is considered one of the important factors at different national and regional levels. In another sense, regional development is a process that consists of legal and sustainable combinations (Silberfein, 2011). Regional development does not mean the integration of several countries or several regions in free trade systems, but the opposite meaning, that is, the development and development of all regions within the limits of

one country (Fanni, 1382). Regional development is defined in strategic documents as a process for positive economic, social, environmental, and cultural developments in each country, to lay the groundwork for the growth of the level of public welfare, security, and quality of life of society (Karnitis, 2011). If the main goal of economic-social development is that all members of the society are covered by the benefits, then each region or district within the borders of the country must have its development strategy so that its plans and solutions are based on the needs and according to the conditions. And the facilities of your region should be designed and implemented. Due to the dependencies and links that each city has with its surrounding area, in any urban development planning, it is necessary to study regional and even national planning. Therefore, regional development planning can be considered an all-around and integrated effort to use resources and also to use the capabilities and facilities of the region (both city and village) to raise the living standards of its residents (Fanni, 2012).

In general, the concept of regional development is an all-out effort to achieve goals at the macro and micro level in the direction of sustainable development and planning from the bottom up so that in this way it can be done in line with the policies of deprivation and territorial justice and what It lies in land use planning or regional development planning. Considering that the problem of megacities is placed in the form of upstream programs such as land preparation program, regional development program, national physical planning, etc., therefore, in this research, the term regional development is used because of its general meaning and inclusiveness. The concept of development that covers all fields is used.

2-2-2- Planning metropolitan areas

In the past years, the major discussions and urban-regional studies in the world, especially in developing countries, have emphasized the need to recognize and analyze the importance of metropolitan areas, big cities, and sometimes

new cities. On the basis that, in principle, second and third-class cities cannot have the necessary efficiency in terms of economy and return of profit (Fanni, 1378, 49).

The rapid growth of population, economic development, and the consequent increase in urbanization lead to extensive impacts on environmental resources and valuable agricultural lands by turning them into built-up areas (Han et al., 2015). These effects on the environment include natural resources at three global, regional, and local levels (Rounsevell et al, 2016). Water resources, agricultural lands (Verburg et al, 2020), the quality of the environment of settlements (Dadashpoor, 2014, 42, & Ahani, 2019; Al-sharif & Pradhan), and lack of cohesion in the spatial structure of the region (Dadashpoor and Salarian, 2014). In the meantime, metropolitan areas, especially in developing countries with rapid population growth caused by the attraction of economic migrants, have brought more destructive effects to the environment with changes in the land use of their surrounding environment in the past decades (Dadashpoor et al. al, 2019 & Hosseinali et al, 2016 & Wu et al, 2013). The growth and development of metropolitan areas with unplanned dispersion and expansion, in which there is no pre-determined thinking about the formation of the metropolitan area, is associated with abandonment and unwanted consequences (Dadashpoor, 2019), which causes the conversion of use Others such as agriculture, gardens, open fields, and pastures have become newly built areas in the suburbs of these areas (Arsanjani et al, 2011). Green infrastructures, which are the life support system and ecological services in metropolitan areas, are being The process of poor land use planning in metropolitan areas can lead to an irreparable impact on the environment and regional ecology (Han & Jia, 2018, 5 & Dadashpoor & Salarian, 2017).

Also, the lack of proper understanding of the ecological results of land use changes makes it difficult to establish a balance between urban development and sustainable development. The continuation of this process leads to

environmental destruction and creates the necessity to draw an optimal model for these areas based on criteria appropriate to the natural, economic, and social environment (Dadashpour and Jahanzad, 2014). One of the most important constituent elements of any system is its structure and function. In spatial-spatial systems that form the main subject of modern geography studies, various structures (environmental structure, social structure, economic structure, etc.) and functions (environmental function, social function, economic function, etc.) are proposed. They become Thus; the systematic approach in geography is an approach that emphasizes the relationship between the structural and functional components of the phenomena in a close relationship and correlation with each other (Panzara, Postiglione, 2021).

2-2-3- Theories for and against the development of metropolises

To determine the role of megacities in the regional development of Iran, which is the purpose of the research, the theories related to its development and publication are examined so that the place of megacities in the path of development and the above programs can be determined. Manually specified. Therefore, based on the studies conducted regarding the regional development programs, the following items, which are the result of studies conducted in this regard, are extracted and summarized;

– Randineli bases his theory on development based on the lack of concentration of investments in human settlements with emphasis on the development strategy on the urban axis in providing the minimum conditions for the rural people, which forces them to bring rural communities to socio-economic development. This theory relies more on the development of the city and ignores the function of the village. With this definition, this theory can lead to some kind of imbalance in the villages of Iran, because most of the people in the villages of Iran are facing poverty, unemployment, etc. Such theories have expanded the range of migration towards big cities and can greatly fuel the imbalance between big

cities and small cities. Therefore, this theory will be fruitful when it leads to the development and strengthening of the infrastructure of villages and small towns and investment in them with the all-round cooperation of the people and the private sector and finally the government (Shakoe, 2005; Papoli Yazdi and Rajabi Sanajeroudi, 2010; Roknoldin Eftekhari and Izadi Kharameh, 2013).

- Strong point: proportional distribution of facilities and services, centered on justice

- Weakness: focusing only on cities and being on the sidelines of villages, practically; Imbalance in rural areas, increase in rural-urban migration, and lack of all-round vision

- Friedman's theory emphasizes overco-ming regional inequalities and creating a spatial system with a regular spatial hierarchy. At the heart of this theory lies a kind of colonial relationship between the center and the surroundings, because the center, by concentrating facilities and employment, attracts more immigrants from small towns and villages, and ultimately takes capital and manpower from these towns and becomes a Colonialism appears. Therefore, in this theory, he puts the principle in the center at all levels and considers the surroundings as branches (Marsoosi et al., 2009; Friedman, 1969; Papoli-Yazdi and Rajabi Sanajardi, 2009; Kalantari and Abdolazadeh, 2011).

- Strength: attention to regional inequalities, focus on a fair distribution of opportunities

- Weakness: focusing only on small and medium cities and being on the outskirts of villages, practically; Imbalance in rural areas, increase in rural-urban migration, and lack of all-round vision

- Jefferson's first urban theory and the followers of this theory state that usually the existence of the first city in a country indicates an imbalance in the development process. This has aggravated the imbalance in the development of small cities (Share pour, 2009 and Moonaw & Alwosabi, 2004).

- Strength: creating population order in the urban hierarchy, obtaining a quantitative and demographic measure of the size of cities

- Weakness: looking only a little at the urban

hierarchy, not paying attention to quality issues, not having an all-round view

- Theories related and in sync with the growth pole, growth point, and its development strategy of Hill horst, Bodeville's theory (which proposes the geographical space instead of the growth pole), and McLaughlin in his famous book entitled Systemic Approach in Planning Urban and regional refers to the region as a complete system with all its relevant characteristics. In this regard, he defines the region as a connected whole, an organized body, and a set with parts and elements related to each other. In general, they believe that large-scale industrial investments in large urban areas cause the growth of central areas. Then, through interactions, it reveals its effects on the entire economy. In addition to not being able to improve the backwardness of other small and medium-sized cities, this theory greatly exacerbates regional inequality, because megacities, by investing heavily in themselves, intensify the class gap with small cities and It causes poverty in them. This large investment has not brought any consequences other than pollution, informal settlements, population density, etc. (Sabbagh Kermani, 2013; Qarehbaghian, 2001; Dawkins, 2003 & Miyoshi, 2020; Wheeler, 2015).

- Strong point: providing systematic solutions for expanding development, focusing on a specific issue and providing practical solutions, providing a basic spatial perspective for solving regional problems.

- Weakness: focusing on big cities and marginalizing other places, intensifying regional inequality, creating class gaps, increasing population density, etc. in big cities and other places.

- Some theories, by putting villages in fashion, and paying attention to the benefits of rural life, consider successful and sustainable development as paying attention to all population centers, which explicitly or implicitly focus on the advantages of rural areas in their theories. Have given. Among these theories, we can mention the views of Von Tonen, Robert Hackenberg, Becker, Morrison, IS Aubrey, Class Kanzman,

etc. According to these theories, not paying attention to the development and forgetting rural areas has caused the process of rural-urban migration, which itself leads to the creation and development of numerous urban problems in urban and metropolitan areas. Therefore, in the same way, that theories consider attention to small and medium-sized cities as the key to solving the problems of big cities, several theories have made villages the focus of attention for balanced regional development (Hackenberg, 1982; Randineli, 1983; Becker, 1983; Morrison, 1997; Cassarda and Parnell, 1993; Kanzman, 1994).

Strengths: Paying attention to villages as the missing link of development, planning from the bottom up, and the practicality of the solutions according to the planning scale.

- Weakness: Focusing only on villages and not having a codified plan for other population centers, not having a comprehensive view of the issues, and the dispersion of the solutions provided.

- The theory of modern geographic economics shows that along with the growth of national income, regional disparities increase due to economies of scale. Therefore, there is a positive relationship between regional inequality and the speed of economic growth. In this theory, the emphasis on the competitiveness of regions is based on the specific capacities of each region, which is derived from the theories of the international division of labor, specialization of regional functions, attention to the location-oriented principle, etc. (Mora, 2018, *Assembly World Economy*, 2020; Ni, 2012).

- Strengths: explaining the causes of regional inequalities systematically, paying attention to the category of place and location-centricity as the basis of the theory, a qualitative look at regional planning issues, a macro and comprehensive look at regional issues

- Weakness: not having written and thematic practical solutions

- In modern regionalism, they consider the use of the old world and the transformation of traditional methods and goals by using new

innovative technologies and the use of methods that can tell the specific concepts of the region. New regionalism requires something beyond the need for context. New regionalism is a creative approach rather than a reactionary approach. What is intended is not imitation or static protection, but something that can be called creative protection. Therefore, paying attention to the old city and focusing on preserving the identity and culture of the region and the location-centeredness of the development framework are advantages of this type of view (Hutchinson & Lindsay, 2018; Lessmann, 2020 Achten and Lessmann, 2020).

- Strengths: paying attention to the category of location and special capacities of planning areas, paying attention to preserving the identity and culture of the areas, using new technologies in zoning, and solving problems.

- Weakness: lack of systematic practical solutions

- Perspectives of endogenous regional development focus on the development of medium and small cities to promote development. In fact, the theoretical framework of these views is the local economic development framework, which in most cases is closely related to market-oriented development and decentralization. The process of participation between local communities, community-oriented organizations, and the private sector in the management of existing resources and job creation has been defined, which causes economic prosperity in the territory of the region, including new institutions under development and local systems through strategic discourse and action. Usually, the analysis of decentralization is related to highlighting the existing relationships between regional planning on the one hand and administrative and managerial realities in national construction regarding the support of decentralized decision-making on the other hand. The final result is that the role of medium and small urban centers plays an important role in balanced regional development and poverty reduction. A lot of research in this field shows the significant potential role of medium and small urban centers

in regional and local development ([United Nations, 2020](#); [Gaile GL, 2017](#)).

- Strength: planning from the bottom up, providing practical solutions for balanced regional development, paying attention to the social and spatial realities of the community to provide solutions, paying attention to the principles of sustainable development in providing solutions

- Weakness: paying more attention to medium and small cities to promote development, not having a macro and comprehensive view of the issues

- Exogenous regional development theories focus on the principle of competitiveness based on the capacities of planned regions. Focusing on location and competitive advantages and starting development beyond the planning areas are the characteristics of this type of view. The focus of attention on the geographical location is somehow seen in both endogenous and exogenous regional development perspectives. But the way of looking at the development process and its beginning in theories is worth considering. In the way that in endogenous development perspectives, the focus is on small and medium cities as well as on megacities, focusing on old cities and preserving their identity and history, and exogenous regional development theories, focus on megacities. And the expansion of development happens through the competitiveness of cities and the geographical location of regions ([Porter, 2017](#); [Lengyel, 2019](#); [Mora, 2018](#)).

- Strengths: location-oriented regional development theories, paying attention to the principle of competitiveness and specific capacities of each region, paying attention to the political economy approach

- Weakness: top-down planning, excessive focus on the outside of the region, more focus on big cities, and less attention on small and medium-sized cities according to the practical solutions provided.

- Theorists who have focused their attention in connection with regional development on metropolises, including Peter Hall, Cathy Payne, Walter Izard, Louck and Vu, Jane Jacobs, John Friedman, Saskia Sassen, Peter Taylor, Manuel

Castells, Scott, Fuchen Lu, Kamal Saleh, Mike Douglas and ... The basis of the theories of the development of metropolises is to prioritize development in various economic, physical, social, environmental, etc. dimensions in these areas. Supporters of the development of metropolises believe that the driving engine of development happens in the centers of wealth and power, therefore, considering that the aggregation of facilities and services, the accumulation of capital, the reduction of costs caused by the accumulation and profit of economic enterprises, the prosperous market of consumption, production Science and knowledge can be seen in big cities, the focus of these theories is on prioritizing the development of big cities.

- Strengths: a systematic look at the regional development process, paying attention to the principle of competitiveness and the specific capacities of each region, a realistic look at the advantages of big cities, and paying attention to the political realities of society concerning big cities to move in the development of the region.

- Weakness: top-down planning, excessive focus on the outside of the region, more focus on big cities, and less attention on small and medium-sized cities according to the practical solutions provided.

- Theorists such as M. Pragash Matur, Oswaldo Filho, Christian Lessman, Niels Hansen, Oliver E. Williamson, etc. consider the emphasis on central justice and attention to small and medium cities as the main solution to overcome regional inequalities. In fact, these people are in favor of the development of small and medium-sized cities, who believe that the reason for unbalanced development and the lack of proper distribution of facilities and services, and as a result, the backwardness of small and medium-sized cities and even villages, is the excessive concentration in megacities.

- Strengths: Emphasis on decentralized planning, providing practical solutions for specific geographical areas under investigation, being justice-oriented, and paying special attention to the principle of distributive justice.

- Weakness: focusing more on medium

and small cities, not having a macro and comprehensive view of the issue of regional development

– People like David Harvey, Edward Soja, Hougart, Stepiran, etc. have emphasized attention to social and territorial justice. Therefore, in the theories of these people, the macro-territorial and justice-oriented perspective and special attention to the place of development are more evident.

• Strength: Emphasizing the principle of justice in macro-planning, paying attention to the specific place of development, coherence, and orderliness in presenting views, putting the principle of participatory planning and social mobilization.

• Weakness: the inability of the views presented based on the historical, social, political, and economic realities of other countries, especially developing countries and Iran

– Institutional economic theories believe that the economy is formed by collective forces, which turns it into an institutional process. The foundation of these theories leads to the formation of new regionalism theories. The participation of regions in decision-making and giving more authority to regions to solve regional problems forms the intellectual basis of this theory.

• Strength: Paying attention to the special advantages of each region and as a result of being location-oriented, paying attention to the economic realities of the regions under planning, paying attention to participatory planning and social mobilization.

• Weakness: focusing more on economic and geographical issues and neglecting other social, environmental, political, and institutional fields.

2-2-4- Summarizing and presenting the theoretical framework of the research

Each of the examined theories regarding the supporters and opponents of the development of metropolitan areas and the regional development theories stated above has their advantages and disadvantages, and it can be said that it is not possible to provide a suitable development model for all regions. The phenomenon of backwardness should be studied in the national and international

framework. The successful pursuit of economic and social development in developing countries requires the formulation of appropriate strategies within third-world countries and the modification of the current international economic system.

The root of many problems and issues of backwardness, such as widespread poverty, growing inequality, rapid population growth, and increasing unemployment, are in rural areas. Therefore, without paying attention to the issues of rural areas, planning for big cities and other urban areas will be useless.

Supporters of metropolitan development believe in starting regional development through metropolitan development and expanding development as a stimulus for regional development to other regions. On the other hand, supporters of the development of medium and small cities, who are also against the development of metropolises, believe in unbalanced development and polarization, spatial and regional inequality, etc. in other residential areas. Each of the theories has points of commonality and difference, which need to be summarized and analyzed to formulate the conceptual framework of the research and explain the role and function of Iranian metropolises for regional development. Table 1 shows the summary and basis of these theories.

By examining the various theories proposed in this research, concerning the role of megacities in regional development, various results were obtained. Some theories observe regional development as a result of increasing attention to megacities and development from top to bottom, and some to attention to low levels of planning and from bottom to top. Also, there are views based on the development of medium-sized cities. In the meantime, we are faced with new perspectives related to the types of regionalism and the resulting planning, which seem to be more successful for regional development due to the impact of the late period and gaining experience from previous theories.

Therefore, the theoretical framework of the research is based on the fact that first the theories for and against the metropolises are

Table 1: Summary of the theories of supporters and opponents of the development of metropolises, to explain the role of regional development

intellectual foundation	theorists	Summary of theories
Proponents of the development of metropolises	Babageorgios and Pence (2019), Porter (2017), Venugopal (2016), Manuel Castells (2014), Luke and Waugh (2012), Angel and Lopez (2010), Lamberts (2009), Rows (2009), Peter Hall et al. Kathy Payne (2006), Florida et al. (2006), Long and Devil (2005), Peter Taylor (2004), Calthorpe and Fulton (2001), Scott (2001), Klusterman and Mustard (2001), Jane Jacobs (1997), Button (1995), Saskia Sassen (1991), Fauchen Lowe, Kamal Saleh and Mike Douglas (1978), John Friedman (1968), Walter Izard (1960)	<ul style="list-style-type: none"> - Competitiveness of regions based on the specific capacities of each region - The possibility of using the advantages of gathering in big cities - Specialization of regional function - Start of development beyond the planning areas - Macro and comprehensive look at regional issues - Attention to the political economy approach - Development engine in centers of wealth and power (metropolises) - The possibility of using new technology and new communications in big cities - Extension and expansion of development through upstream development - Facilitating regional development in metropolitan cities due to the existence of infrastructure and development facilities - Reducing costs and the possibility of implementing the process of intelligitization in metropolises - The proximity of new urbanization theories with metropolises - Conserving land and making more use of spaces - The possibility of better and wider social communication - Availability of facilities for scientific, technological, knowledge-based growth, etc. in the metropolises - The possibility of making the government body smaller in big cities - More complete and coherent spatial organization in metropolises - Preservation of the environment and natural landscapes as a result of greater density in metropolises - The possibility of extensive financial, scientific, political, technological, etc. communication with other nation-states - The closeness of sustainable development theories to the proponents of metropolitan development in terms of increasing density and saving land in the case of maintaining views and not destroying the environment. - High efficiency of production and economic activities in big cities - Increasing the level of people's well-being due to the consolidation of welfare, social and economic inputs in metropolises - Greater self-sufficiency of megacities than small and medium cities - Unbalanced distribution of facilities and services in big cities compared to small and medium cities
	Santano et al. (2021), Eichen and Lessman (2020), Shin et al. (2020), Ashiq et al. (2020), Xinyu et al. (2020), Zhang et al. (2020), Latifi et al. et al. (2018), Hu et al. (2018), Zhao et al. (2018), Christian Lessman (2017), Pezukido and Netrasankos (2017), Firoozi et al. (2017), Tian et al. (2017), Fanni and Bagheri. (2014), Qatek and Solti (2011), Khodadad et al. (2013), Shafei Sabet (2013), Hekmatnia and Mousavi (2013), Osvaldo Filho (2010), Lidocampel (2009), Williamson (2005), Fanni (1388), Zarrabi and Mousavi (1388), Nazarian (1387), Kamanda (2007), Becker and Morsion (1997), AS Aubrey (1993), Klass Kanzman (1990), Hill horst (1990), M Prakash Mathur (1982).), Nils Hansen (1981), Bowdeville (1970), Caro and Rudel (1978), Funnell (1976), Johnson (1970), and Brian McLoughlin (1968).	<ul style="list-style-type: none"> - Development of medium and small cities and as a result their appropriate population distribution in all areas of the land - The possibility of better and more sincere social communication in small and medium cities than in big cities - Greater social security and reduction of crime in small and medium cities compared to big cities - Increasing regional disparities due to the development of metropolises - The closeness of sustainable development theories to the proponents of the development of small and medium cities in terms of creating less environmental pollution and less destruction of animal habitats. - More class gap in big cities than in small and medium cities - More informal settlements in big cities - Reduction of human diseases in small and medium cities compared to megacities - The proximity of justice-oriented theories in small and medium cities compared to big cities - Reducing the cost of living in small and medium cities compared to megacities - The possibility of providing balanced services and facilities in small and medium cities compared to big cities - Reducing travel costs in small and medium cities compared to big cities - The closeness of participatory planning theories to the development of small and medium cities compared to megacities - Reduction of environmental risks and better planning of crisis management in small and medium cities compared to big cities - Centralization and increasing imbalances in the field of spatial organization - Increase in crises caused by resources (water, minerals, fuel, etc.) in megacities compared to small and medium cities. - Consumerism is more in big cities than in small and medium cities
Proponents of the development of small and medium cities		

examined and their strengths and weaknesses are analyzed and then summarized. After that, by examining the role of Iran's metropolises in terms of development indicators, their status is verified based on the results obtained from theoretical foundations. Based on the results of the positive characteristics of the theories of supporters and opponents of the development of metropolitan areas and small and medium cities, it is used to provide a theoretical framework for the country's macro development planning. The proposed theories are formulated according to the development conditions of the country's big cities. Therefore, by using the foundations of critical theory and meta-analysis of the proposed theories and clarifying the conditions of the investigated megacities in Iran, the place and how to look at the issue of megacities in the country is compiled and specified.

3- Research Methods

The template paradigm in this research is based on critical theory. Historically, the critical approach is placed after the affirmative approach and the interpretive approach. The critical approach in criticizing the affirmative approach largely agrees with the interpretive approach and considers experimental methods ineffective for examining social issues. Critical approach thinkers believe that the affirmative approach is unable to provide individual interpretations of social phenomena; because it considers social phenomena to be subject to a series of pure laws just like natural affairs. The critical approach moves against the affirmative and interpretive approach, and in its path, it also includes economic, social, and political relationships in the equation; because he believes that the previous two approaches have left out important and influential parts by neglecting these fields.

According to the approaches of the critical paradigm, in this research, quantitative and qualitative methods, focused (in-depth) interviews, deep interpretation and understanding of events, investigation of hidden social mechanisms, development of theoretical models of hidden constructions and Processes in

society and the method of Meta-analysis are used to deeply understand the issues.

To answer the research question "What metropolitan functions affect regional development in Iran?" The Dimatel method is used. The Dimatel method is one of the multi-criteria decision-making methods used to identify the pattern of causal relationships between the studied variables. The purpose of the Dimatel technique is to identify the pattern of causal relationships among a set of criteria. This technique examines the intensity of communication in the form of scoring, investigates feedback along with its importance, and accepts non-transferable relationships. The reason for choosing the Dimatel method is to consider the feedback of mutual relationships, structuring complex factors in the form of cause and effect groups, determining the importance and weight of the factors involved in the model by all existing factors, and more interaction between the decision maker and the organization's experts.

The method of gathering the data and information needed for the research was done through documentary studies, questionnaires, and interviews, and the necessary analyzes were done through the method of meta-study and consensus of opinions. One of the methods of calculating reliability is using Cronbach's alpha. This method is used to calculate the internal consistency of measurement tools, including questionnaires. In the present research, the same method was used to measure the reliability of the questionnaire.

Considering the importance of analyzing information and showing the results of the research, the data and information obtained from the "combined method" have been used, which is analyzed in the form of two qualitative and quantitative methods. In the current research, the information collected from institutions, organizations, and elites is qualitatively analyzed using "logic" and "rational reasoning". After their qualitative assessment and control with the opinions of experts and the collection of available statistics and information from the country's official statistical sources, the required

supplementary information was collected through interviews and using existing statistical tests to find the relationships and correlation of data from descriptive statistics including It is used to prepare and organize the frequency distribution table, draw a diagram, etc. It should be noted that computer software such as Excel and SPSS are used to analyze data and measure relationships between variables. Selected methods for analyzing information and answering research questions, in addition to answering research questions, are intended to achieve the purpose of the dissertation, which is to explain the role and function of Iranian metropolises in regional development.

The statistical population of this research is experts related to organizations at three levels, macro, medium, and micro, which include university professors, experts in the governorates of the studied cities, local organizations in the cities such as the municipalities of the cities, and high-level organizational managers in the ministries Roads and Urban Development and the Ministry of Economy, which has been distributed and completed through targeted sampling and

using the snowball method, 375 questionnaires, and interviews among experts and experts.

4- Discussion and findings

The studied metropolises include Tehran, Mashhad, Shiraz, Karaj, Isfahan, Tabriz, and Qom (Figure 1). The reason for choosing these megacities is to have a wider sphere of influence than other cities in the country, the relative availability of facilities and services, and a competitive capacity compared to other cities. It should be noted that among the cities with a population of more than one million people (based on the general population and housing census of 2015), in addition to the above cities, only Ahvaz is the city, which is due to its smaller area of influence and low level of facilities. and services and as a result, the high standard deviation in statistical inferences have not been investigated in this research.

The Dimetal analysis model was used to investigate the metropolitan functions affecting the regional development of Iran. For this purpose, based on the study of research related to the research subject, first indicators were



Figure 1: Location of the major cities investigated in the research

extracted in this field, and then by using the questionnaire made by the researcher in this field, the questionnaire was obtained by experts in this field in such a way that with Considering the average of the mentioned indicators, 19 indicators of the most important economic, socio-cultural and environmental indicators were identified in these regions, and then the most important indicators affecting regional development were identified.

4-1- Metropolitan functions affecting regional development

First, indicators in the field of metropolitan functions affecting regional development were extracted based on the studies conducted in the research related to the research topic and then using the information of the questionnaire made by the researcher in this field and considering the average of the index. The mentioned 19 indicators of the most important economic, social and environmental functions affecting regional development were identified (Table 2).

4-2- Final weight and strategic model of the regional development situation

In this model, the weight and the weighted score of the indicators were determined, on the other hand, determining the optimal indicators of the strategic model for the state of regional development based on the functioning of metropolises is considered one of the essential findings. Based on these findings, economic, social, and environmental components with a weight of 0.371, 0.243, and 0.221 have the most to least important in the category of macro indicators (Table 3).

Based on the results of the limited supermatrix and the ranks of sub-criteria and main criteria among the metropolitan functions affecting regional development, the most effective index among the existing indices is as follows:

Index A2 (income distribution in urban and rural households)

From the subsets of economic components, it was identified that in metropolitan areas, the way of income distribution has an impact on regional development.

Table 2: Metropolitan functions affecting regional development

Standards	Indicators	Analytical code
Economic components (A)	- The amount of dependence on the government and oil rent	A1
	- How to distribute income in urban and rural households	A2
	- Spatial distribution of infrastructural facilities and industrial and service activities supporting production	A3
	- The activity of economic groups (active population)	A4
	- Employment and unemployment status	A5
	- Economic stability (inflation index)	A6
	- Terms of trade and exchanges	A7
Social components (B)	- Social threats (life and financial security)	B1
	- Infrastructural and network structure, industry, and traditional production methods	B2
	- Human aspects of the workforce and the youth of the population	B3
	- The number of social anomalies and crimes	B4
	- Developmental effects of ethnic, tribal, and linguistic issues	B5
Environmental components (C)	- Cultural threats	B6
	- Defense-security situation	C1
	- Environmental hazards such as (water, air, soil, sound, agricultural industrial pollution)	C2
	- The state of human pollutants in urban and rural settlements	C3
	- Climatic conditions, geographical limitations, and opportunities	C4
	- Environmental resilience against (earthquakes, floods, droughts, landslides, and glaciers)	C5

Table 3: Limited supermatrix and sub-criteria ranks and main criteria

Substandard	symbol	Weight	rank	standard	Relative weight
– The amount of dependence on the government and oil rent	A1	0.053	11	Economic components (A)	0.371
– How to distribute income in urban and rural households	A2	0.074	1		
– Uneven spatial distribution of infrastructural facilities and industrial and service activities supporting production	A3	0.054	9		
– The number of development effects caused by ethnic, tribal, and language issues	A5	0.067	4		
– Economic threats	A4	0.041	16		
– Infrastructural and network conditions, industry, and traditional production methods	A5	0.043	15		
– Human aspects of the workforce and the youth of the population and the homogeneity of the ethnic structure	B1	0.061	6		
– Inactivity of economic groups against the revolution, evildoers, religious minorities, and smuggling groups	B2	0.032	18	Social components (B)	0.243
– Proximity to the capital and strong economic centrality in the country	B3	0.047	12		
– Existence of military barracks, missile sites, and military infrastructures	B4	0.054	8		
– Social threats	B5	0.071	2		
– Cultural threats	B6	0.045	14		
– The number of anomalies and social crimes	B7	0.046	13		
– Environmental resilience against (earthquakes, floods, droughts, landslides, and glaciers)	C1	0.065	5		
– The state of environmental hazards such as (water, air, soil, noise, agricultural industrial pollution)	C2	0.035	17		
– The state of human pollutants in urban and rural settlements	C3	0.059	7		
– Military-economic threats	C4	0.053	10		
– Climatic conditions and geographical limitations and opportunities	C5	0.069	3		
– Suitable conditions for unevenness from the point of view of passive defense and dependent components of civil defense	C6	0.031	19		

Index (B1) of the human aspects of the workforce and the youth of the population

This index with a weight of 0.061 is in the second dimension of the most important metropolitan function affecting regional development in Iran. This index will cause the evacuation of villages, an increase in heterogeneity and imbalance in the distribution of the population of urban and rural settlements, emigrants, unemployment, etc.

Index C5 (unique and special climatic conditions)

This index with a weight of 0.071 in the third dimension is the most important metropolitan function affecting regional development. The reason for the importance of this index as the

second function is clearly evident that the climatic conditions have made the infrastructures of social economic development, agriculture and other sectors to be overshadowed and passive, and these conditions have many effects on other sub-sectors.

5- Conclusion and suggestions

Metropolis is the product of a set of external factors and forces such as globalization, economic reconstruction (the disappearance of the industry from cities, the emergence of the service economy and basic knowledge, etc.), and the information technology revolution along with internal factors such as population growth, immigration,

Dispersion of behavior, informal settlements and car settlements around metropolitan cities, urban suburbs, institutional aspects (political division, integration and annexation policies), infrastructure investment and network structure (metropolitan transportation) which are the most important influencing factors in During a specific process, it leads to spatial organization and the formation of metropolitan areas. Therefore, the development around it happens by chance and cannot be managed and planned, but its positive effects should be increased and its negative effects should be prevented. This happens in such a way that planning priorities can be spread in the direction of spreading development to the surrounding areas.

Iran's megacities are relative superiority in terms of having facilities and services, activity and as a result, high population density compared to surrounding population centers. What is worthy of consideration is, based on the theories of domestic and foreign experts and thinkers, the place of megacities in the process of regional development planning or land development plans.

In the section on the theoretical foundations of the research, supporters, opponents, and thinkers regarding megacities were examined and analyzed. Each of the people, according to their opinion, explained the relationship between the role of megacities and regional development or the fields that lead to the spread of development from within or outside the region. What is important is to explain the viewpoints of the big cities.

The similarity of the results of this research with similar research is the investigation of the state of development of the investigated metropolitan cities, and of course, in this case, by analyzing the previous theories and performing a Meta-analysis on them, the indicators of effective and real metropolitan development were extracted. The main difference in the research is how to investigate the role of megacities in upstream development programs. In fact, in this research, how to theoretically look at the problem of megacities in upstream development programs

was determined. Also, the theories of supporters and opponents of metropolitan development in terms of prioritizing the development of metropolitan areas were examined and analyzed.

Supporters of the development of metropolises believe that the driving engine of development happens in the centers of wealth and power, therefore, considering that the aggregation of facilities and services, the accumulation of capital, the reduction of costs caused by the accumulation and profit of economic enterprises, the prosperous market of consumption, production Science and knowledge, the possibility of using new technology and new communications in metropolises, facilitating regional development in metropolises due to the existence of infrastructure and development facilities, paying attention to the approach of political economy, the possibility of better social communications. And more widely, saving in land consumption and more use of space, the possibility of extensive financial, scientific, political, technological, etc. communication with other nation-states, preservation of the environment and natural landscapes due to greater density. In megacities, the high efficiency of production and economic activities, greater self-sufficiency of megacities compared to small and medium cities, etc. can be seen in megacities, the focus of these theories is on prioritizing the development of megacities.

While the opponents of the development of big cities, things include; Increasing regional disparities due to the development of metropolises, more informal settlements in metropolises, reduction of living costs in small and medium cities compared to metropolises, the possibility of providing balanced services and facilities and reducing travel costs. In small and medium-sized cities, the increase in crises caused by resources in metropolises, etc., are declared as the reasons for endogenous development and focusing on small and medium-sized cities.

Based on this, according to the results of the analysis of the theories for and against the metropolises and the views of other different experts concerning the regional development process, axes, intellectual foundation, subject, and

approaches of regional development. , it should be based on the intermediate point of view and using the relative advantages of all points of view based on interaction and intellectual discourse and considering spatial, spatial dimensions and territorial justice for all territorial areas (including metropolises, small and medium cities and villages) in the form of be done together. Therefore, to explain the role of metropolises in the regional development of Iran, based on the explanation of the theories and intellectual reflection on the points of view, the intellectual foundations, and the planning approach are suggested including the following;

The cognitive issue of the regional development approach, including issues such as low level of regional competitiveness and lack of proper use of local resources, regional imbalance, inappropriate distribution of facilities and services, spatial and spatial injustice, Intellectual, cultural and managerial poverty, environmental problems at the macro level should be considered. The goals of regional development, equality, and competitiveness (spatial justice) with a sustainable development approach, and policy framework, including the use of the region's potential through regional planning with a view to the future and possible challenges ahead. , the scope covered, a comprehensive and integrated view of development projects with a wide range of related policies, spatial orientation, focus on all areas, the scope of interventions, functional areas or planning areas, time dimension, and spatial approach. A short and medium-term and content-sensitive and specific approach for each place (place-oriented approach), program emphasis, emphasis on assets, local knowledge and wise management, development tools, and simultaneous investment in soft and hard assets. Business infrastructure, labor market, physical infrastructure) and regional development activists, including different levels of government, and diverse stakeholders (people, private sector, and non-governmental organizations).

The axes and approaches that are the basis of the intellectual foundation and how to look at the role of metropolises in regional development

include the following items; Participatory (democratic) approach, program, based on political economy, planning, based on social mobilization, purpose (coverage) of the program, spaces (including environment, human, activity) and communities, the scope of the program, in the form of topic-oriented or community-oriented, process Preparation of the program, in the form of dialogue and social learning, methodology, in the form of dialogue-participation, the level of the program, including transnational, national and local levels, the process of implementing the program, in the form of networks.

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HOW TO CITE THIS ARTICLE

Omidali, E.; Fanni, Z.; Shafei Sabet, N. (2022). Analyzing the theories for and against metropolitan development and its application in the regional development of Iran. J Urban Manage Energy Sustainability, 3(3) 1-18.

DOI: [10.22034/jumes.2022.563584.1091](https://doi.org/10.22034/jumes.2022.563584.1091)

