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Strategic model of integrated management of urban boundaries in Bandar-e Emam Khomeyni based on Meta-SWOT technique

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Abstract

This research has examined the challenges and obstacles in the integrated managing the urban boundary of Bandar-e Emam Khomeyni. The statistical population in this research has been three municipal service districts of Bandar-e Emam Khomeyni. Sampling has been done by purposive sampling and data has been collected by interview with the experts in the field. Meta-SWOT method has been used to analyze and present a strategic model for integrated management of the urban boundary. The results of the model clearly illustrate the significant and determining effects of integrated management of boundaries, equal and decisive handling of unauthorized construction, interaction and coordination between organizations and supervision by experts. This suggests the valuable, inimitable and irreplaceability of the factors as compared to other factors studied, which requires a special attention to these factors. The results of the Meta-SWOT model also showed that the external factors such as speculation, air pollution and environmental degradation, as well as migration and informal settlements had the highest impact among non-controlling factors on integrated management of urban boundaries. Our overall assessment is that the city needs a strong integrated management with the use of strategic planning as well as clear-vision and explicit rules.

Keywords: Urban Boundary; Integrated Management Of Urban Boundary; Bandar-E Emam Khomeyni; Meta-SWOT Model, Strategic Plan

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1. Introduction

The ever-increasing urbanization is one of the hallmarks of social life in the present era, which has had a profound impact on human societies; urban development has gradually evolved in line with the development of urbanization and the emergence of metropolitan cities. Changes in the urban living environment have become so accelerated that have attracted the attention of the experts in various areas to overcome the problems encountered by cities, especially metropolises (Fanni, 2006; Oyvatt, 2016). Recent studies have shown the serious concern of city executives and authorities for prerequisite planning in order to cope wisely with the future issues of cities and the development of sustainable and inclusive welfare (Ahmadi and Zarghami, 2019; Karimi et al., 2019). To this end, in many countries, local affairs and integrated urban management have been assigned to a special, relatively independent and unitary government in the entire system of governance. Urban integrated management is a new concept that implies a change in the administrative situation and the way decision makers think in the formulation and implementation of land development policies (Ioan-Franc et al., 2015; McGill, 1994). Urban integrated management has two vertical and horizontal dimensions beyond the administrative boundaries of cities and requires identification of factors that are based on these dimensions. The solution is not to design and implement projects such as shareholder projects. These factors should be selected and analyzed by those who can really support these projects. In fact, integrated urban governance is a managerial approach to the underlying problems existing during policy formulation beyond the limitations of political regions (Jacquier, 2005).

In recent decades, urban settlements in Iran have become the focal point of socioeconomic life, and what is known as urban problems has become increasingly evident every day. On the other hand, with the spread of the urbanization phenomenon, increase of urban migration, and physical growth, the problems of cities will be on the rise. In 1907, for the first time in the field of law and regulations of the country, the regulations for urban development were approved. To date, many laws have been passed to organize the development and improvement of urban conditions (Mohtadi, 1986; Salehi-Isfahani, 1993). According to the current laws and regulations of the country, the independent area of urban development regulations is recognized as the city boundary. Prior to the adoption of the Law "Definition of the limits and boundaries of cities, villages and towns and how they are determined", passed by the Parliament on January 4, 2006, titles such as "legal limits", "legal boundary", "municipal district", "city limits" and in the case of the city, the terms "range of protection", "scope of protection", "protection boundary", "final range", "penetration range" and so on, the terms "residential area of the village" or "village boundary" about the village limits were used in more than 200 laws. However, regarding the size of the city boundary, it is mentioned only in the terms and conditions for development plans (Arsanjani et al., 2013).

According to Article 2 of the Law "Definition of the limits and boundaries of cities, villages and towns and how they are determined", the city boundary is a part of the immediate area surrounding the city area, which is necessary for the supervision and control of the municipality. As declared in the article, "In order to maintain the necessary lands for the balanced development of cities, with due regard to the priority of preserving agricultural lands, gardens, and forests, any use of land for the construction of buildings and facilities within

the city limits (boundary) will be possible only in the framework of the rules and regulations approved for comprehensive plans (Madanipour, 2003).

For various economic, political and social reasons, planning and management of the city boundary has always been a challenging and stressful issue for relations between different levels of government. These relations can be summarized as follows:

- 1- Relations between municipalities, which, because of the overcoming of the commodity approach to the city boundary, each receive a larger share of the inter-urban territorial space;
- 2- the relationship between municipalities and other public service providers that could lead to the failure of urban development due to lack of co-operation;
- 3- Relations between municipalities and metropolitan and regional levels of government such as provincial governors and governorates that due to overlapping tasks between these two entities (in boundary control) and porous forms of monitoring the boundary has reduced the capacity of effective control of this territorial zone with the highest demand for development, and has led to a lot of tensions (Clark and Costello, 1973; Madanipour, 2003).

In the new law, all names of territories and city limits are summarized in two titles: the city area and city boundary. According to the law, "the urban area is the existing physical limits of the city and the future development in the comprehensive plan". Also, "the city boundary is a part of the immediate land around the city within which the supervision and control of the municipality is obligatory and it should not violate the boundaries of the country's divisions". This law, as the new law governing the urban boundary, has raised two major issues for urban management, in particular, the management of metropolitan areas. The first is the condition that defines the boundary of the cities, based on the fact it should not exceed the boundaries defined for the city and county. Another issue is related to that part of the law that prohibits municipalities from controlling construction in the villages that are located in urban areas. The construction control in villages will be the responsibility of the rural municipality after the adoption of this law. Prior to the enactment of this law, the control of construction in all villages located in urban areas was the responsibility of the municipality. The prohibition of the municipality of this pre-existing arbitrariness, especially in the urban areas, which is increasingly in demand for development, as well as the need of rural municipalities for income sources, has created a further management disagreement and many misconduct, especially in the urban area. Therefore, it may be said that the adoption of the new law on the definition of the boundaries paved the way for the emergence of tensions and developmental instabilities by adopting the same attitude in legislation and lack of a specific attitude to the problems of cities (Sturzaker and Verdini, 2017).

Clearly, if effective, coherent, or integrated management is not created in the cities, it will not be long before the abandonment of their valuable spaces. Integrated management in the city boundary means that an organization (preferably a public non-governmental organization affiliated to the municipality), known as the "Boundary Management Organization", has a comprehensive oversight over all activities and land use in the boundary. Comprehensive management does not necessarily replace the part management. But also coordinates the plans and actions of part management. Of course, if these programs and actions are in conflict with the main mission, they will also be prevented. The goal of part management is to plan and execute only on the basis of the requirements of the division and not along with the requirements of other divisions (Madanipour, 2003; Smith, 1995).

The main task of the Boundary Management Organization with the planning and monitoring of the land use in the city boundaries is:

- 1- the prevention of the interference and interpenetration of part-way activities so that it does not endanger the mission of the city boundary;
- 2- the prevention of activities that are in conflict with the mission; and
- 3- if necessary, the extension of the boundary by creating a variety of green spaces, open spaces and tourist areas (Madanipour, 2003; Mohammadi et al., 2012).

Sometimes the transfer of some state-owned enterprises to municipalities is also called "integrated management". One of the provisions of Article 137 of the Iran's Fourth Development Law states: "Those transferable enterprises of the state, in development and civil affairs of the city and village, is handed over to municipalities and villagers with the financial resources upon approval of the Council of Ministers". Article 136 of the the Iran's Fourth Development Law also has the same content. But this program itself is a separate matter and is not related to what was previously called integrated management. Because if all state-owned enterprises, such as roads, water, electricity, education, housing, elections, security, etc. are handed over to the to municipalities and villagers, the unity and integrity of the boundary management are not guaranteed. For integrated boundary management, there is no need for the transfer of state-owned enterprises to municipalities. The integrity and comprehensiveness of the plan is to merely compile all of the urban boundaries under the cover of a single management, in terms of planning, conservation and supervision. In this management, the involvement of national and local organizations can be achieved through the combination of members of the organization's council. It is recalled that the organs of such an organization include the council (or board of trustees or general assembly), the board of directors, the director and auditor (Chakrabarty, 2011).

As the case studied in this research, Bandar-e Emam Khomeyni has not succeeded in the implementation of integrated management of the urban boundary despite having the right human potential and physical and organizational resources. In recent years, there has been a mismanagement of the city boundary and the occurrence of many problems in the city such as environmental pollution and degradation, wastewater problem, and marginalization. This was because of the expansion of important industries such as petrochemicals, the lack of adequate distribution of housing and urban amenities due to the failure to implement an integrated and comprehensive system for urban management. Therefore, considering the strategic location of this city and its economic significance, the integrated management of the urban boundary in Bandar-e Emam Khomeyni seems to be of high importance. This necessitates the study of the pattern of integrated urban management in a scientific and precise manner, which has been followed in the present research.

Strategic planning can be an essential and efficient way for integrated management of urban boundary. In fact, strategic planning seeks out how to find the resources needed to achieve the strategic goal. Using this kind of programming (in view of the fact that it focuses on the practical planning and implementation of participation in the process of evolution, by modifying the attitude and addressing theoretical and cognitive issues) will be fruitful in the management of urban boundaries and territories. The reason for relating the strategic word to this kind of planning approach is that the strategic attitude is based on principles that

reaffirm the solidarity and interconnectedness of the goals, plans, urban development plans and their execution facilities. Herein, the programming and execution are known as a continuous process; hence, this approach is also referred to as process planning. In fact, strategic planning in management is considered as a tool for better affairs and ensuring achievement of goals. Prior to 2012, strategic planning was mainly done using the SWOT technique. Following the researchers' awareness of the limitations of the SWOT technique, the Meta-SWOT technique was firstly introduced as an evolved SWOT method, which features such as high precision, future in-depth, and targeted, resource-centric approach. Meta-SWOT is intrinsically a strategic planning methodology that helps managers to develop new and useful strategies by identifying and assessing their competitive scene, and subsequently resources and capabilities within their own environment (Agarwal et al., 2012; Helms and Nixon, 2010). Therefore, with the knowledge of these issues in the present study, we have been using the Meta-SWOT method to present an applied strategic model for integrated management of Bandar-e Emam Khomeyni's boundaries. What can be expected at the end of this research is an effective and applicable strategy for protecting and managing the boundaries of the city.

2. Methods

The research method in this study is of descriptive-analytic. The study can also be considered in the field of applied research and exploration. In the applied research, the practical and applied aspects and the actual use of the results of the research are considered. The present study was done in two phases. In the first phase, the required data and information was collected through documentary and library studies and the use of statistical data in the municipality of Bandar-e Emam Khomeyni. Subsequently, the objectives set for integrated management of Bandar-e Emam Khomeyni's boundary were introduced into the Meta-SWOT software. In the next step, field information was conducted through interview with 35 experts and researchers (mostly with a master's degree and Ph.D.) that expressed their level of awareness of the concept of integrated urban management in the "very high" level. Therefore, sampling in the present study was done through purposive sampling. After identification the objectives and resources in the software, the experts' opinions were entered into the software and then by identifying the environmental factors affecting the integrated management of the city's boundary and investigating the impact of the resources and capabilities of the city on these factors and objectives, the strategic model of integrated management of Bandar-e Emam Khomeyni's boundary was provided.

2.1. The Meta-SWOT model

The Meta-SWOT model was introduced for the first time by R. Agarwal, assistant professor of computer science and two of his colleagues at the Department of Business Administration at St Norwort College in 2012, inspired by resources-based theory (Agarwal et al., 2012). Today, companies, institutions and organizations employ two approaches outside-in and inside-out for strategic planning depending on whether the resources and capabilities, as well as the environmental factors, are initially implemented. Strategic planning theorists have somehow come to the consensus that successful and popular organizations or companies have unique

capabilities that have opened up the marketplace for themselves. Using their creativity, they have come up with an inside-out approach, distinguishing themselves from others based on creativity and reliance on inner abilities. In other words, they create markets and shape their competitive environment. Therefore, resources-based view (RBV) is based on the assumption that the resources and capabilities of each organization and group are their first and foremost distinctive advantage and brings them some kind of sustainable and long-term advantages. Resources are assets, positive attributes, knowledge and any kind of relative advantage that is in the hands of a group which are effective in improving the future conditions.

The Meta-SWOT model is based on an inside-out approach and is some kind of resource-based view. Still, how to identify the resources and capabilities that can provide sustainable competitive advantage remains a challenge. To solve this problem, four main criteria are presented. To be effective, a strategic resource must be valuable (V), rare (R), inimitable (I), and organizable (O), as described in Figure 1. The four proposed criteria (VRIO) can determine the potential of resources and capabilities to create a successful strategy (Agarwal et al., 2012).

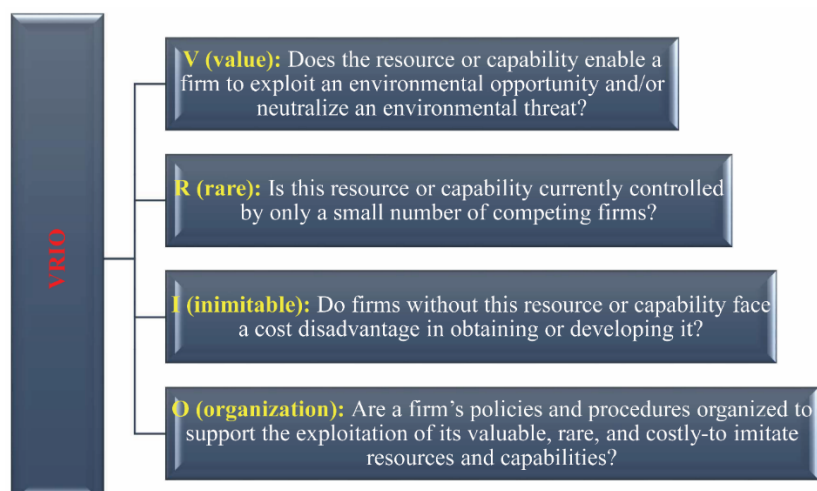


Figure 1. Quadruple criteria (VRIO) creating a successful resources-based view (RBV)

In the Meta-SWOT model, factors associated with the organization's environment are identified independently of internal factors. The PESTEL method is used to identify the factors. The PESTEL framework is based on political, economic, social, technological, environmental and legal factors. This analysis is effective in identifying the opportunities ahead as well as the possible risks. Generally, it is used to assess the environment in large measure as well as to evaluate the present situation. Because macro factors have the ability to make fundamental changes (Agarwal et al., 2012).

3. Study area

Bandar-e Emam Khomeyni is a port city and capital of Bandar-e Emam Khomeyni District of Mahshahr County, Khuzestan Province, Iran. It is located in the southwest and in the plain section of Khuzestan Province at

30°26'08"N 49°06'20"E. The city is bounded to the central part of the Mahshahr city, Musa Estuary, and Jarahi River from the east, south, and north, respectively. It is also limited to the railway from the north and the highway from the northeast (Figure 2).

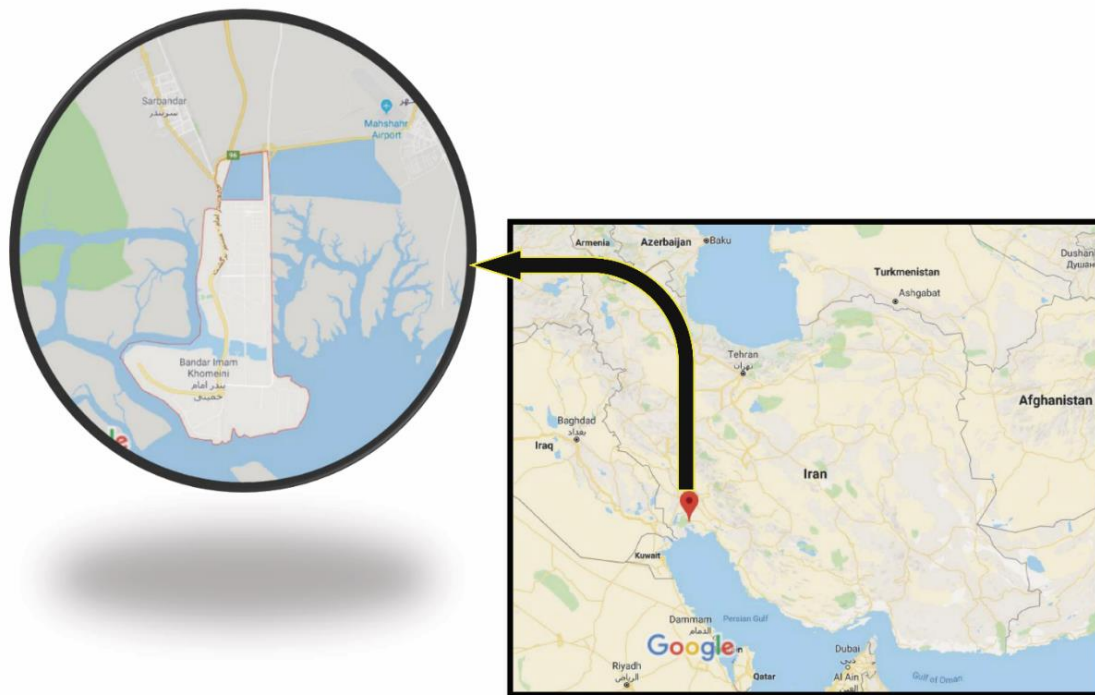


Figure 2. The city boundary map and geographic position of Bandar-e Emam Khomeyni

Bandar Imam Khomeini is a port city on the Persian Gulf with warm and humid semi-tropical climate. Like other areas of the Persian Gulf, this region has relatively low rainfall and high relative humidity. In Bandar-e Emam Khomeyni, the summers are long, sweltering, arid, and clear and the winters are cool, dry, and mostly clear. Over the course of the year, the temperature typically varies from 47 °F to 111 °F and is rarely below 40 °F or above 116 °F. The city area is about 34 km² and its 3 m height above mean sea level (AMSL). Based on the census, the population of this city in 2006 was about 67075, in 2011 it was about 72357 and in 2016 it was estimates at 78353, which represented an average growth of 7.29%.

4. Results and discussion

4.1. Setting objectives for integrated management of urban boundary

In the first step, the objectives set for the integrated management of Bandar-e Emam Khomeyni's boundary are identified. The timing of the planning for this research has been determined in line with the national documents and in accordance with the vision document. The objectives are derived using the method of analyzing the content of the documents because the Meta-SWOT model is a desirable deployment method for

identifying and analyzing the relationships between dimensions and indices. This model requires the information to be received from experts and analyzed. Accordingly, due to the unequal weight of the identified objectives, they were prioritized based on the opinions of the experts according to a three-level scale of importance (high, medium, and low). To prioritize the objectives, the Taguchi method, which is a realistic approach for evaluation of indices, has been used.

The organizational objectives, based on the degree of priority, are shown in Table 1. The objectives entered into the Meta-SWOT software after formulating and determining their importance.

Table 1. The objectives set for integrated management Bandar-e Emam Khomeini's boundary

Objectives	Priority level
Realization of the integrated management of urban boundary based on national documents	Top
Protecting the urban boundary with the participation of all related organs	Top
Prevention from illegal construction in urban boundary areas	Top
Precise and accurate determination of the boundary line	Top
Creating a comprehensive system database for systemic control and surveillance on the boundary	Top
Providing the monitoring and surveillance maps for the destruction rate of ecosystem and urban boundary changes	Top
Managing polluting industries in the boundaries of the city	Top
Preparing a guide plan for the surrounding villages	Medium
Determining the physical limits of the boundary and its functional areas in the form of a comprehensive plan	Medium
Obligation and adherence to the preservation and management of the physical structure of the settlements located in the boundary	Low
Developing appropriate management mechanisms to monitor physical-demographic developments.	Low
Implementing the green belt policy	Low

4.2. Identifying the resources and capabilities of Bandar-e Emam Khomeini

The effective and key factors for integrated management Bandar-e Emam Khomeini's boundary are identified by referring to the views of experts. Since resources and capabilities don't have the same weight, they are weighted using the Fuller triangle based on their effect on the research objectives. Fuller's triangle is one of the weighting models for indices, which is based on the Fuller table. For this purpose, firstly table is set that the criteria consist its rows and columns. The weighting is based on the opinion of the experts which is reported as percentage. Table 2 indicates the factors affecting the integrated management Bandar-e Emam Khomeini's boundary according to experts.

Table 2. Weight of effective factors (resources) in the integrated management of Bandar-e Emam Khomeini's boundary

Resources and capabilities	Weighting (%)
Integrated management of urban boundary	16
Equal and decisive handling of unauthorized construction	12
Organizing and transfer of industries	11
Interaction and coordination between operating systems	10
Supervision by trained expert familiar with municipal laws	9
Private Investment	8
Citizen participation	8
Urban boundary map and guide plan	6
Access to services and amenities	6
Protected natural environment	5
Access to comprehensive and classified database	5
Green belt plan	4

4.3. Assessment of resource based on resources-based view (RBV)

In this research, RBV was used to answer such a question "How could the municipality identify the resources and capabilities which provide sustainable competitive advantage?" Accordingly, the resources and capabilities of the city are evaluated in terms of value, immitability and irreplaceability in a five-dimensional spectrum. The assessment is presented in Table 3.

Table 3. Measuring resources and capabilities by RBV

Resources and capabilities	Weighting (%)	Value	Inimitability	Irreplaceability (Organization)
Integrated management of urban boundary	16	Very important	Very important	Very important
Equal and decisive handling of unauthorized construction	12	Very important	Important	Very important
Organizing and transfer of industries	11	Very important	Very important	Important
Interaction and coordination between operating systems	10	Very important	Very important	Important
Supervision by trained expert familiar with municipal laws	9	Very important	Very important	Important
Private investment	8	Very important	Important	Important
Citizen participation	8	Very important	Important	Important
Urban boundary map and guide plan	6	Important	Mediocre	Important
Access to services and amenities	6	Important	Mediocre	Important

Protected natural environment	5	Important	Important	Mediocre
Access to comprehensive and classified database	5	Important	Mediocre	Mediocre
Green belt plan	4	Mediocre	Mediocre	Mediocre

4.4. PESTEL analysis

Here, the environmental factors out of the control of the organization (municipality) such as economic, political, cultural, social, technological, ecological and legal factors affecting the integrated management Bandar-e Emam Khomeini's boundary will be addressed. For this purpose, PESTEL analysis will be used. This analysis is more effective in identifying the opportunities ahead as well as the possible risks. In this regard, effective environmental factors out of the control in the integrated management of Bandar-e Emam Khomeini's boundary are evaluated based on expert opinion in terms of four criteria (weighting, impact, probability of increase, and degree of emergency). Table 4 shows the assessment.

Table 4. Environmental factors out of the control (external factors)

Factors	Weighting	Impact	Possibility of increase	Degree of urgency
Environmental degradation	Much more important	Very strong	Very high	Immediately
Illegal construction and speculation	Much more important	Very strong	Very high	Immediately
Non-integrated management and conflict of laws	Much more important	Very strong	High	Immediately
Immigration and informal settlements	More important	Strong	Very high	Immediately
Thematic variation of the rules and applying by various executives	More important	Strong	High	Immediately
Natural hazards	More important	Strong	High	Soon
Lack of management of the financial sources	More important	Strong	High	Soon
Lack of land for construction within the urban area	More important	Strong	Medium	Soon
Social damage	More important	Medium	Medium	Soon
Land price fluctuations	More important	Medium	High	Soon

4.5. Assessment of strategic alignment

4.5.1. The alignment between resources and environmental factors

At this step, the opinions of experts on the impact of resources and environmental (external) factors are questioned. In fact, strategic alignment is calculated by adapting internal or external factors. Here, we'll find out how resources support opportunities and reduce threats. The comparison between most important factors is presented in Table 5.

Table 5. Strategic alignment between resources and environmental factors

Comparative levels	Very weakly	Weakly	Somewhat	Strongly	Very strongly	Environmental factors			
						Conflict of laws	Environmental degradation	Immigration and informal settlements	Illegal construction and speculation
Resources and capabilities	Integrated management of urban boundary					Very strongly	Very strongly	Very strongly	Very strongly
	Equal and decisive handling					Strongly	Very strongly	Very strong	Very strongly
	Organizing and transfer of industries					Strongly	Strongly	Very strongly	Very strongly
	Interaction and coordination between operating systems					Very strongly	Very strong	Somewhat	Strongly
	Supervision by trained expert					Strongly	Strongly	Strongly	Strongly
	Private investment					Somewhat	Somewhat	Strongly	Strongly
	Citizen participation					Weakly	Strongly	Strongly	Strongly

4.5.2. Alignment between resources and objectives

After examination of the alignment between resources and environmental factors, it is necessary to determine the effect of resources and capabilities on research objectives. Table 6 shows a comparison of the effect of various factors.

Table 6. Strategic alignment between resources and objectives

Comparative levels	Very weakly	Weakly	Somewhat	Strongly	Very strongly	Objectives			
						Management of polluting industries	Management of ecosystem	Prevention from illegal construction	Realization of the integrated management of urban boundary
Resources and capabilities	Integrated management of urban boundary					Very strongly	Very strongly	Very strongly	Very strongly
	Equal and decisive handling					Strongly	Strongly	Very strongly	Very strongly
	Organizing and transfer of industries					Very strongly	Very strongly	Somewhat	Strongly
	Interaction and coordination between operating systems					Very strongly	Strongly	Strongly	Strongly
	Supervision by trained expert					Strongly	Strongly	Strongly	Strongly
	Private investment					Somewhat	Strongly	Somewhat	Strongly
	Citizen participation					Somewhat	Strongly	Strongly	Strongly

4.5.3. Strategic model

In the last step, the strategic model is presented according to the PETSEL analysis and the comparisons made between resources, objectives and external factors. In a scientific and specialized definition, it can be said that a strategic plan is, in fact, a planning and expert strategy for dealing with the negative effects of environmental factors. The strategic plan of resources and environmental factors are analyzed on the basis of three criteria:

- 1- The proximity of resources to environmental factors;
- 2- The horizontal and upward position of factors;
- 3- The size of the bubbles.

Figure 3 illustrates the strategic plan for integrated management of Bandar-e Emam Khomeini’s boundary. According to previous decisions and comparisons, the software automatically maps out the strategic plan. Resources and capabilities are shown in green and environmental factors are displayed in red. The horizontal axis (X) represents the value, the inimitability and the organizational equilibrium; and the vertical axis (Y) represents the degree of strategic alignment of the factors. Those oriented to the right are fairly valued, rare, inimitable and without alternative, and have a strategic alignment. Those factors that are upwardly oriented have a high degree of strategic alignment. The size of the bubbles indicates the degree of consistency with

objectives. The bubble size of the environmental factors indicates their degree of urgency. In general, for both bubbles that represent the resources and environmental factors, placing in the upper and the right position represents the highest scores.

H-SWOT Chart

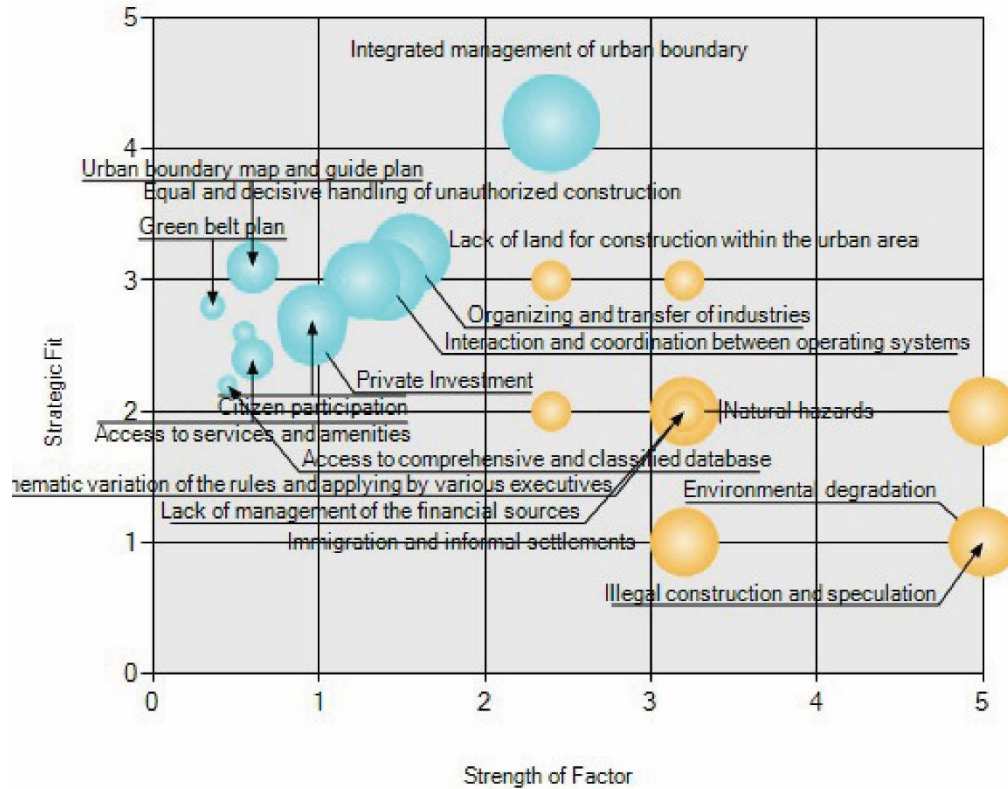


Figure 3. Strategic management model for integrated management of Bandar-e Emam Khomeini’s boundary

Based on the strategic model, the implementation of the integrated management of urban boundary, the equivocal approach to unauthorized construction, the interaction and coordination between the executive organs and supervision by the experts shows the highest weights. This suggests the higher value, inimitability and organizational equilibrium of the aforementioned factors compared to other factors affecting the integrated management of Bandar-e Emam Khomeini’s boundary. Therefore, it is necessary the above factors to be considered at the top of the Bandar-e Emam Khomeini management plans. In addition, private sector investment and citizen participation are of paramount importance to the realization of the integrated management of urban boundary.

The results on analysis of the external factors show that the external components including speculation, air pollution/environmental degradation, as well as migration and informal settlements, have the highest weights in assessing environmental factors outside the control of the organization, i.e., economic, political, cultural-social, technological, ecological and legal factors, respectively.

4.6. Remarks

Finally, in order to formulate the final solutions, we need to judge the extent and the possibility of combining important environmental factors with resources and capabilities. In other words, it should be determined whether the combination of these factors is in line with each other in defining a strategy and, if they are, what factors should be prioritized. According to the aforementioned strategic model, the most important measures in this field can be mentioned as follows:

- 1- It is necessary, with the participation and interaction of all the relevant and operating organs, to provide a suitable platform for maintaining the city boundary of Bandar-e Emam Khomeini using implementing the integrated management; while taking into account the diverse and broad spectrum of a variety of executive and supervisory boards in the area of urban boundary, many management units do not operate in a coherent and integrated manner, not only in policy-making but also in planning and implementation. On the other hand, the establishment of a new management unit will lead to conflict and interference in tasks and responsibilities.
- 2- Integrated management of urban boundary and urban growth boundary, based on what has been observed in the current experiences, requires the creation of a legal environment and political support, and on the other hand, it requires the allocation of educational programs, research projects and national, regional and local support funds.
- 3- In every urban and economic planning, housing is of high importance, and it is necessary to have a coherent planning in this regard, in order to solve both housing problems in the city and the occurrence and prevalence of phenomena such as speculation and degradation of natural environment and resources.
- 4- Proper management of industries as well as strict and non-discriminatory monitoring of their performance can not only prevent the destruction of the ecosystem, but also can lead to economic dynamism.

5. Conclusions

Rapid urbanization and urban population growth have caused the most severe problems in many areas such as housing, unemployment, and informal settlements. The inability to meet urban requirements has led to problems that in turn caused the surrounding areas of the cities (urban boundaries) to be constantly exposed to the uneven growth and the influx of urban utilities. Along with the emergence of the issue of globalization, in particular, cities have faced two vital problems that point to the issue of interdependence: How can we reduce or even prevent the social and spatial inequalities, as well as the problems the spatial division? How can we establish a sustainable local economic growth, international and inter-regional competition, as well as job opportunities? To meet these challenges, it has been proven that the traditional methods are laborious and ineffective; as a result, new management strategies are required. Among them, integrated management of urban boundaries is a newfangled concept that implies the change in the administrative situation and decision-makers' thinking in the formulation and implementation of territorial development policies. Integrated management of urban boundaries has two vertical and horizontal dimensions beyond the administrative boundaries of cities and requires identifying factors that are based on these dimensions. In fact, integrated

management of urban boundaries is a managerial approach to the underlying problems during policy Codification beyond the limitations of the political regions.

The Meta-SWOT model can play a decisive role in the integrated management of Bandar-e Emam Khomeini's boundaries via identifying the status of urban boundaries in Bandar-e Emam Khomeini, determining the value, scarcity, inimitability, and irreplaceability of resources, as well as examining the impact of different internal factors on threat control or the optimal use of opportunities, and the degree of proportionality between objectives and resources. The results of the model clearly illustrate the significant and decisive effect of the integrated management of urban boundaries, the equivocal approach to unauthorized construction, the executive organs and supervision by the experts. This suggests the higher value, inimitability, and organizational proportion of the mentioned factors than other factors considered in the implementing the integrated management of urban boundaries in Bandar-e Emam Khomeini emphasizing on the special attention to these factors. The findings are in agreement with those results reported by Akbari et al. (2016), which identified the integrated management and financial resources management as one of the most effective factors in the management of urban boundaries in Tehran. The results of the Meta-SWOT model also show that among uncontrollable factors, the external factors such as speculation, air pollution/environmental degradation, as well as migration and informal settlements, have the highest impact on the integrated management of the urban boundaries. This is consistent with the results of the research by Hadizadeh Bazar (2012). In their research, they concluded that the increase of industrial, production, service and residential units, speculation and changing land use patterns, and most importantly the non-integrated management, caused the physical expansion of the city of Mashhad, the change in the use of the land and the growth of informal settlements in these areas.

Based on the obtained results, the following suggestions are presented:

- 1- Although the integrated management is not an appropriate alternative to departmental management in all urban affairs, it prevents the conflict between measures of departmental management and measures contrary to the main mission of the urban boundary through the coherent planning of the use of boundary land and supervision over its implementation. In fact, integrated management of urban boundary will be optimized when all related executives do not have an economic and commercial view of the boundary.
- 2- in addition to preventing the physical growth of large urban areas and restricting the merge of cities and neighborhoods, the policy of urban growth boundary and integrated management of urban boundary now is followed in other areas such as urban agricultural development (especially organic agriculture), the expansion of tourism (local and outermost), the establishment of protection areas for wildlife, etc., as experienced in the cities such as London, Dallas, etc. Based on the findings, the integrated management of urban boundary is one of the most important cases in the field of general concepts related to boundary for urban and regional planners. This, on the one hand, requires the creation of a legal environment and political support, and on the other hand, it requires the assignment of educational programs, research projects as well as the allocation of national, regional and local support funds.
- 3- The best way to manage the urban boundary is to enforce Clause (c) of Article (147) of the Fifth Development Law of Iran approved by the Islamic Consultative Assembly. Land ownership in our country is in the hands of the government; the government cannot both execute and monitor the one that it executes. Therefore, a non-governmental organization to monitor the government's

performance in the field of urban boundary is vital and imperative. Article 147 explicitly states that all the land in the boundary area should be available to the municipalities. In addition, in order to implement the integrated management of urban boundary, it is necessary for all parts and organs to co-ordinate and benefit from private organizations as well, as this method has had successful worldwide successes.

- 4- It is now accepted that urban areas face a variety of contextual and procedural challenges, and municipalities and individual local government units lack the capacity to manage these areas. The realization and success of any alternatives as a solution for urban boundary planning and management requires the establishment of mechanisms for regional integrated management or adoption of a roadmap for the deployment of such mechanisms.
- 5- Education, research and informing on the approach adopted in relation to the urban boundary is a special necessity. Prior to any action, the proper perception of citizens, specialists, managers and all elements effective in the administration of the region should be provided. Only if sufficient knowledge of the dimensions of the proposed scheme and mechanism is provided the managers of the various organs will be willing to engage and cooperate to achieve the vision and integrated regional perspective.
- 6- Various experiences show that it is not necessary to create an organization or a new and formal level of government in order to manage and plan the scope of urban boundary. Instead, it can also use innovative, voluntary and informal mechanisms such as NGOs, institutional alliances, voluntary councils, and so on.
- 7- The policy of urban growth boundary and integrated management of urban boundary do not seem to be enough without extensive government support due to facing cities as well as the regional levels of government with everyday issues having a higher priority as well as technical and financial constraints.
- 8- Applying coherent and harmonized rules and regulations for all community centers in the boundary area and avoiding the determination of a separate privacy for residential settlements and communities are of vitally importance.
- 9- Serious and decisive action on any construction violation in the urban boundary, preventing any unofficial and illegal intercourse and dealing with all offenders, including governmental and non-governmental organizations and legal entities, and housing cooperatives that owns real estate and land in different parts of the city are other necessary measures.
- 10- In the direction of integrated management of the urban boundary, the establishment of a special committee on monitoring the boundary and related violations, drafting a plan to motivate public participation in better management of urban boundary, the preparation and implementation of the policy of urban growth boundary and integrated management of urban boundary, the preparation of comprehensive for organizing industries and authorized activities of the city, and guiding artisans and investors in line with it, are suggested.
- 11- It is suggested that the level of readiness of experts and staff in Bandar-e Emam Khomeini should be evaluated regarding the implementation of the integrated management model in order to identify possible.
- 12- Holding specialized workshops and seminars to raise the level of knowledge of the relevant experts in the field of integrated management of urban boundary is also suggested.
- 13- As a limitation of the present study, it is suggested that the impact of cultural and social factors on the management of urban boundary to be studied comprehensively.

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