

# Analysis of effective factors on stability of local development with urban stable development approach (Case study: Moziraj Range in Babol City)

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## Abstract

The purpose of the present research is the analysis of effective factors on stability of local development with urban stable development approach in Moziraj Range of Babol city. The kind of research is practical and the method of study is descriptive-analytic. Statistical society of research consists of 390 individuals from Moziraj Range of Babol's citizens. For collecting data and information librarian-documentary study and distribution of questionnaires were used, and analysis of data was performed by SPSS20 software and its tests such as Chi-Square, KMO and Bartlett. The questionnaires were confirmed by related experts and its stability was confirmed by doing pre-test with Cronbach's Alfa coefficient above 0.7 for all criteria. The results of research show that the sense of belonging criteria with coefficient 0.875 has the most effect and the availability of webs and services criteria with coefficient 0.491 has the least effect on stability of local development in Moziraj Range of Babol, and also there wasn't a meaningful relationship between individual identifiers and criteria of local stability.

**Keywords:** Range, local development, stable development, Babol

## Introduction

With development of industrial revolution and mechanization of human life and inattention to natural environment and irregular use

of it, especially after world war two and change of economic and social system in favor of cities and increasing immigration to cities and more centralization of population and facilities in urban areas, pressure to resources and destruction of environment has been increased. This matter causes many problems such as air, water and soil pollution, urban poverty and increasing of marginalization. The mentioned problems lead to discussions for solving them and finding solutions for preventing destruction of environment. The result of these discussions lead to introducing an issue named stable development, in which development should be compatible with decreasing of destruction of environment and supplying the present and future needs. This discussion in city was started under title of stable development for reducing the pressure on natural environment and human himself (Maleki & Hossein Zadeh Dalir, 2009). In this direction, Blowers argues that stable development is in exploration of using of lands and believes that size, concentration and the place of human residences which are suitable for stability, will be changeable in proportion of technological development in energy, buildings and transportation (Blowers, 2000). In fact human in the late decade of 20 century is faced with this reality that many concerns about environment which exist toward societies such as the growth of population, wasting in using of resources, destruction of residences of wild life, extinction of plant and animal species have internal relationship together and encountered the whole land with danger as a human residence. If we

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don't think about a remedy, population changes, destruction of environment and poverty which are growing rapidly today, lead to a disaster because of their increased destructing power (Sheykholslami, 2009). Intricacy of stable development issue and uncertainty about future development lead to many discussions in urban development especially stable development, which has been examined in various grounds and lead to useful procedures (Lalbakhsh, 2010), from which urban stable development in the present world is the result of culture of using these human findings from urban environment (Azani, 2006). In this theory the issue of preserving resources for present and future needs by appropriate use of land and entering the least damages to renewal resources is under discussion (Ziari, 2008). With bringing up this concept, this discussion developed among nations and planners throughout the world and many efforts have been done for defining stability concept (Wackernagel & Yount, 2000).

Examining the recognition of situation and concerns of area development according to their stability and stable development in cities are problems which have been introduced in urban planning culture lately. The use of stable development indicator in economic, social, cultural, educational and health dimensions can be an appropriate criteria for both identifying the place of areas and solving the problems for achieving to economical welfare and social-cultural health of residents for reaching to stable development (Maleki, 2010). At the other hand, according to intricacies of urban problems, multiplicity of activities and actions at city levels and the selection of stable development have a direct relationship with limitations and potentials of urban environment (Aran, 2010). In the other hand, attention to ecological potentials and limitations, appropriate and compatible development of nature, use of domestic interests and materials, proportion of population and natural resources are important characteristics of urban stable development (Sadri *et al.*, 2010).

Because according to innate intricacy of cities and various dimensions of their effectiveness, recognition of essential key factors seems necessary for achieving to urban stability (Hossein Zadeh Dalir *et al.*, 2009). So we can achieve to the model of stable development and its goal i.e. promoting the quality of life for majority of urban population, by analyzing limitations and natural poten-

tials-environment as indicators of urban stable development (Deakin & Reid, 2011). In the past the trends of changes and urban growth have been done slowly by using of native and internal materials and in conforming to cultural and social system of that society. But nowadays, because of rapid and internal development of cities, this trend leads to urban instability and misidentify. Babol city is also one of the developing cities in Mazandaran which has been faced with urban development in recent years. In this research we are going to analyze the effective factors on stability of Range development- with urban stable development approach of Moziraj Range in Babol city.

## Theoretical Framework

### Development

In general term, development means gradual openness, become obvious the components of everything and the growth of something which exists. Development can be defined as human's tendency to change or achieving to a higher level, better quality of life and increasing the power of control which has as antiquity as human's life (Behbodi, 2010). The roots of forming this concept in the present era refer to famous lecture of Truman, the president of America in 1949. Historically, several identical factors caused that the development become as a universal project. One of them was restoration after world war two, and the other was world war two and loves of freedom and its democracy against Fascism which waken mental justification for colonization (Soltani & Namdarian, 2011). Development concept can be defined from two points of view and in two dimensions: theoretical-philosophical dimension and practical-identical dimension. Considering the theoretical concept shows that:

- Development unlike growth, which has fewer aspects, has quality and quantity aspects
- Development doesn't have absolute concept, but it has relative quality and it becomes meaningful in comparison to time and place.
- Development has internal dynamics, and like other social regulations can't be determined by conscious human intervention (Papeli Yazdi & Rjabi sanajerdi, 2003).

Therefore, it can be said that development is a desired phenomenon because according to definitions, it brings better future than past and present (Sharzeiee & Mohaghegh, 2011).

### *Stable development*

With reference to the extensive and various existing discussion in development literature, it will be clear that there is much proximity between intergeneration justice concept and criteria of stable development. So according to Woodward's opinion in recent years, majority of subjects which are in relation to intergeneration equality by using words such as stable development has been introduced (Woodward, 2000). In fact, stable development is a balance between development and environment. Brandet Land has formally introduced this concept for the first time in 1987 at the report "our joint future" and it was internationally accepted in "earth conference" in Rio (1992) (Lui et al, 2009). In this report, the purpose of stable development is supplying the needs of present generation without spoiling the abilities of future generation for supplying their needs. From this simple definition, a document of United Nation Conference about environment and development as a plan of stable development for 21th century comes into appear (Mori & Christodoulou, 2011). According to this report, stable development is a development which provides the present requirements of human without spoiling the abilities of next generation for meeting their needs. When we speak about stable development, four fundamental criteria are necessary for it: growth criteria, distribution criteria, environmental criteria, and institutional criteria. In fact, essential policies of stable development are dividable in four following categories (Sheykh-oleslami & coworkers, 2009).

- To minimize the consumption of renewal natural resources like fossil fuels and enough resources
- Making stable the consumption of renewal natural resources (such as underground water, soil and plants)
- keeping the limit production of wastes and pollutions with the capacity extent of universal and local absorption such as greenhouse gases, destructive chemical materials of ozone and toxic rubbishes
- Supplying basic human and social needs such as availability to social participation and availability to the healthy environment and basic services.

In fact, stable development invites us to the creating of an ideal society beyond today society, and emphasizes to its actualization for future generation (Pripco, 2005).

### *Urban stable development*

Development consists of conditions in which all member of society being able to meet their need and also have many opportunities for recognizing their talents. Generally, urban development can be placed in the direction of stability when it will be able to present definite methods for suitable supply of needs of residences. But because of structural weakness of urban management and the lack of public participation, urban service organizations couldn't distribute these services equitably. Stability concept comes into view in 1960s in response to destruction of environment and also inappropriate management of resources (McKenzie, 2004).

This term was initially introduced by universal committee of environmental development under the title of "confrontation with present needs without damaging the resources of future generations for meeting their needs" in order to create suitable strategies for residences of the world. This definition was only used for cities and social problems in recent years (Duxbury and Eileen Gillett, 2007). Today the word stable uses extensively in order to describe the universe in which natural and human systems can survive in the far future. This concept as an attribute adjective of development is a situation in which suitability and existing facilities won't be decreased with a period of time and it is taken from *Sustenere* word (*sus* means from down and *tenere* means keep), which means keep alive or keep and expresses long-term stability or protection (Zahedi, 2006).

Urban stability is another parallel concept which has been introduced by some writers such as Maklarn. For defining this concept firstly she compares it with urban stable development. She quoted from Richardson and writes: the meaning of these two terms is very close to each other and they usually used interchangeably. She says: the way of distinguishing them is regarding stability concept as an analyzing situation or suitable condition or collection of situation which be lasting. The word urban stable development associates a process by which we can reach to stability (McKenzie, 1996). Therefore, development is stable when it isn't destructive and be able to provide the possibility of preserving resources such as water, soil, plants and animal for future generation. In stable development the principal

is that basic natural resources become preserved in the manner that at least future generation can use and produce as present generation. The most important idea is related to universal commission of development and environment which has been explained in 1987. According to this definition a development is stable which meet present needs and also increases the abilities of future generation and regarding their needs (The cities Alliance, 2007).

Stable development is not just preserving of environment but also a new concept to economic growth which supply justice and facilities of life for all people around the world not special people. Generally, it can be said that a stable city is not just a clean city, but also is a city that human can earn a justly income in it, provide a suitable shelter, feel relax, and use his/her effort and time for preserving the picture of city. Making a powerful urban economy and habitable city from environmental point of view should be along with efforts with the purpose of preserving existing social groups and preserving modern shapes of running the city and its control, in order to preserve the social fluency and solidarity. Stable urban development because of its obvious quality which is regarding value aspect related to urban development, do its effective effort for directing development with special emphasis on human and environment. In this approach the increasing effective emphasis is on mutual effects of social groups dwelling in city with all dimensions which act as a basis for strengthen social cultural and economic relations and its desired production is strengthen social and environmental identity and

improvement the quality of life (Navabakhsh & Arjmand Saihposh, 2009)

## Methodology

Type of the research is practical and studying method is descriptive-analytic. Statistic society of research consists of 390 individuals from citizens of Babol Moziraj Range. In order to gathering data and information it is used from librarian-documentary and scoping study (distribution of questionnaires) and the analysis of data has been performed by SPSS20 software and its tests such as Chi-Square, KMO & Bartlett. Context admissibility of questionnaires has been confirmed by experts and university professors and for the purpose of determining the validity of questionnaires, the sample of 30 individuals from limits of study has been selected. For determining the degree of proportion of variables collection in correlation matrix for factor analysis it is used from KMO statistic which its scope of change is between one and zero. For specifying the rate of trust to measuring tools, it is used from Alfa-Cranach which is based on correlation matrix and measures the total coefficient of specter. Table 1 shows Cronbach's Alfa and KMO for various scales. As you can see, the achieved results from pre-test show the trust or agreeable permanency of tools under study (questionnaires).

In this part we examine the characteristics of population of statistic sample citizens which have been calculated about 390 individuals according Cochran formula, which consists of gender, age and education level.

$$N = \frac{\frac{(t)^2 * p * q}{d^2}}{1 + \frac{1}{N} \left( \frac{(t)^2 * p * q}{d^2} - 1 \right)} \quad N = \frac{\frac{(1.96)^2 * .5 * .5}{(.05)^2}}{1 + \frac{1}{15124} \left( \frac{(1.96)^2 * .5 * .5}{(.05)^2} - 1 \right)} = 384,390$$

**Table 1. Cronbach Alfa's numbers and KMO for various measurements**

Variable	Number	Coefficient of Cronbach's Alfa	KMO Coefficient
Identity and Readability	4	0.861	0.915
Dynamicity and Compatibility	4	0.763	0.831
Availability to Communicative webs and services	4	0.912	0.732
Sense of belonging	6	0.798	0.735
Variety and liveliness	5	0.765	0.812
Security and safety	5	0.812	0.758

## Results

### Gender

According to achieved data, 52.7% of responders were men and 47.3% of responders were women. The intensity of men number than women was because of more call of men and their more tendency for answering to the questions.

### Age

Findings achieved by scope examinations show that the most number of responders consists of the age group less than 30 years old with 45.6 and the least number of participators consists of the age group more than sixty years old.

### Education

In this part data related to the rate of education of responders has been examined. As you can see in table 4, the more individuals in our research consist citizens that had diploma with 27.9%, and the least of them had MA degree and higher with 7.4%.

### Deductive analysis of data

Examining the effective variables on stability by using the method of factor analysis:

For examining and making priority of influence of each effective measurable criteria (security and safety, correlation and dynamicity, availability to communicative webs and services, sense of belonging, variety and liveliness) on stability rate as a hidden variable has been used from analytic factor.

**Table 2. Results achieved from examining statistical sample of citizens according to their sexuality**

Gender	Frequency	Frequency percent
Male	206	52.7
Female	184	47.3
Total	390	100

Reference: Research's findings

**Table 3. Results achieved from examining statistical sample of citizens according to their age**

Age range	frequency	Frequency percent	Total frequency
Lower than 30	153	39.1	39.1
30-40	95	24.3	63.4
40-50	63	16.1	79.5
50-60	37	9.7	89.3
60 years old and above	42	10.7	100
total	390	100	-----

Reference: scope studies, 2013

**Table 4. Results achieved from examining statistical sample of citizens according to their educational level**

Educational level	Frequency	Frequency percent	Total Frequency
uneducated	58	14.8	14.8
Lower than diploma	109	27.9	42.7
diploma	88	22.5	65.2
BA	46	12.0	77.2
BC	60	15.3	92.6
MA and above	29	7.4	100
total	390	100	-----

Reference: scope studies, 2013

### *The selection of variables for factor analysis*

In stage of selection of variables with formation of correlation matrix, variables which don't have any correlation with other variables will be omitted. One of the methods of creating correlation between variables is KMO statistic which its scope is between 1 and 0. If this amount be more than 0.7, the existing correlations are suitable for factor analysis. If the amount of factor be between 0.5 until 0.69, we should pay more attention to it and the amount of less than 0.5 means that the factor analysis is not suitable for that collection of variables (Davis *et al.*, 1989). In the other hand the amount of statistic KMO should be higher than 0.5 and it is better to be

more. Meaningfulness of variables has been performed for factor analysis by using Bartlett test. Meaningfulness of this test is the least condition for doing factor analysis (Sarmad, 1999). Table 5 shows the criteria of KMO and the results of Bartlett test.

According to table 5, the amount of statistic KMO equals 0.784 which confirms factor analysis and shows its suitability. So data are suitable for doing factor analysis. The results of Bartlett test on 0.000 are meaningful. It means that the opposite hypothesis has been confirmed, so there is a meaningful correlation among variables. The amount of effect of six defined criteria on stability has been calculated at table 6.

**Table 5. Statistical results of KMO and Bartlett test about analysis of effective factors on stability of Range development**

Statistic KMO	Bartlett test	sig
0.784	1.98	0.000

Reference: scope studies, 2013

**Table 6. Rate of effect of six defined criteria on stability**

Priority	Variable	Rate of effect	Criteria error	Possibility of meaningfulness
1	Sense of belonging	0.875	0.054	0.000
2	Variety and liveliness	0.742	0.089	0.002
3	Security and safety	0.625	0.039	0.000
4	Identity and readability	0.611	0.094	0.004
5	Sleekness and compatibility	0.596	0.049	0.001
6	Availability to communicative webs and services	0.491	0.073	0.000

Reference: scope studies, 2013

As it is clear from table 6, indicator of sense of belonging with 0.875 has the most effect and indicator of availability to communicative webs and services has the least effect on stability of Range.

### *Second hypothesis*

There is a meaningful relation between individual characteristics (Gender, age and education) and factors of Range development stability.

Achieved results in test show the independency of majority of variables and there isn't a meaningful relationship between individual characteristics and indicators. Therefore, the most important in-

dividual variable according to its relation to identifiers is the employment situation of Boshehr's citizens which had effect on their satisfaction on quality of their life.

Therefore, according to the second hypothesis, as you see at table 7 and by looking on meaningful levels which shows the amount about Alfa 0.05, we can reject the existing of meaningful relation between individual characteristics and stability factors of Range development with 95% trust level. It means that the variable of individual characteristics and stability factors of Range development are independent from each other and are not impressed from each other.

**Table 7. The relation between individual identifiers and factors of stability of Range development**

	Sense of belonging		Variety and liveliness		Security and safety		Identity and readability		Sleekness and compatibility		availability	
Individual identifiers	Chi (Chi)	Meaningfulness (Sig)	Chi (Chi)	Meaningfulness (Sig)	Chi (Chi)	meaningfulness (Sig)	Chi (Chi)	Meaningfulness (Sig)	Chi (Chi)	Meaningfulness (Sig)	Chi (Chi)	Meaningfulness (Sig)
Gender	5/78	0/972	21/14	0/098	15/28	0/576	13/41	0/340	10/52	0/786	19/11	0/209
Age	66/85	0/152	51/08	0/661	62/02	0/681	69/24	0/064	69/62	0/184	59/22	0/504
Education	19/54	0/145	18/52	0/184	9/68	0/916	15/69	0/206	8/02	0/923	13/04	0/599

Reference: scope studies, 2013

## Conclusions

Stable Range development approach tries to increase the social interactions by strengthen and improving spaces of Range, in order to achieve growth in sense of belonging to place, accepting responsibility and promoting social capital. In this research after examining theoretical literature of subject, appropriate criteria according to the conditions of Moziraj Range of Babol city has been selected and then the condition of each effective criteria on stability of Moziraj has been evaluated by means of statistic methods appropriate with measuring level of variables. The result of research show that the sense of belonging criteria, variety, liveliness, security and safety, identity, readability, compatibility, availability' to webs and services are effective with averages (0.875), (0.742), (0.625), (0.611), (0.596) and (0.491) in order. Achieved results in Kay Score test for examining the relation between dependent and independent variables show that there isn't a meaningful relationship in individual characteristics among sexuality, age and education variables with sense of belonging criteria, variety and liveliness, security and safety, identity and readability, compatibility and availability to webs and services, but in spite of few effect of individual characteristics on indicators, we shouldn't ignore them in plans.

## Suggestions

- Setting down the obliterated texture of Range and preventing from inadmissible constructions

- Adopting encouragement policies for investing in Range
- Approaching the existing per-capita of green spaces with standards of country
- Improving the condition of transportation in Range. Creating facilities and establishments related to replacement transportation such as bike riding and walking
- Providing spaces for social relations with purpose of availability to inter-Range coherence
- Intervening opinions of citizens of Moziraj Range in existing furniture in Range
- Assisting to citizens of Moziraj Range for better carrying on ceremonies and religious festivals by urban management

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