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Youth migration patterns and its relationship with the level of development of cities in Khorasan Razavi province During the period 2006-2011

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Abstract

In this article, the patterns of youth migration according to the level of development in the cities of Khorasan Razavi province have been studied. The research method is secondary analysis of 2011 census data. Findings show that the factors of finding a job, looking for a better job and job transfer and education have been the most important reasons for youth migration in the cities of Khorasan Razavi during the period.

The cities of Khorasan Razavi province have a significant difference in terms of the quality level of immigrants and the quality level of immigrants in each city depends to a large extent on their level of development. Also, calculating the partial values of development indicators will have significant effects on reducing immigration in the cities of the province. Among these, the importance of the interaction effects of economic development index and agricultural development index with a value of 0.280 and the level of economic development with a value of 0.230, respectively, had more effects on the variance of net migration. The interactive effect of economic and infrastructure development on migration and population growth was also significant. Therefore, it can be said that improving the indicators of economic development, infrastructure and agriculture can play a significant role in curbing youth migration in the cities of Khorasan Razavi province.

Keywords: Youth Migration, Development Level, Employment, Khorasan Razavi.

1. Introduction

During the last half century, Iran has faced many population changes and transitions such as the transition of illness and death, the transition of fertility, the transition of family, urban transition and migration. The importance of migration and its dynamism has increased and has become a very important

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component of the population dynamics of Iran. During this half-century, Iran has experienced large-scale internal displacements and migratory movements. These shifts have affected the growth of regional population as well as social and demographic structure (Hosseini et al., 2018: 2). Therefore, the study of immigration and emmigration in the provinces of the country is of great necessity and importance.

Migration is one of the three main causes of the change and transformation of the population, and due to its nature, it can also create long-term and long-term deviations in the number and structure of the population, and the balance and lack of balances in the population affected the population.Migration is the most important external factor in changing numbers and building population. Not only the volume and manner of migration from one country to another is very important, but also the movements and movements of the population within a country can, at least in some periods of time, lead to development or stagnation and backwardness (Zanjani, 1992: 171).

Migration is a kind of spatial displacement of population that is done based on different reasons and goals (Ghasemi Ardahai, Mahmoudian and Nobakht, 2017: 376). Migration is the result of a complex set of social, demographic, psychological, economic and political factors. Migration can be considered as a kind of social adaptation in response to economic, social and cultural needs. Therefore, immigrants mainly migrate to improve their lives (Haddadi Nasab and Mahmoudian, 2020: 188).

Khorasan Razavi province is one of the main migration hubs in the country. This province has always been one of the provinces for attracting migrants, both within the province and inter-province. An overview of the province's migration statistics over the last two decades proves this claim well. In the ten-year period of 1996-2006, a total of 305305 migrants have entered Khorasan Razavi province and 274450 people have left this province. The migration balance of this province in the mentioned decade was equal to 30855 people, in this decade Khorasan Razavi province was the fifth immigrant province in the country after Tehran, Isfahan, Yazd and Mazandaran provinces. In the five-year period of 2006-2011, a total of 407,680 migrants have entered Khorasan

Razavi province and 379,262 people have left this province, which the migration balance in this period was equal to 28,418 people.

The main purpose of this article is to study the migration patterns of young people according to the level of development of cities. This article will try to answer the following questions, what is the age-sex composition of young migrants in Khorasan Razavi. What is the quality level of migrants in each of the cities of Khorasan Razavi province? What is the level of development of the cities of Khorasan Razavi province? What is the impact of development indicators on migration and population growth indicators in Khorasan Razavi?

2. Review of Literature

Ravenstein's theory was proposed in 1855. From his point of view, the factors of social, economic and physical attraction attract the migrant and the undesirable factors repel him from the place (Lahsaeizadeh, 1989). In Ravenstein's theory, the most important causes of migration are geographical distance and economic factors (Todaro, 1988 Lee, 1960). Migration theory uses itself as a conceptual framework that includes factors of origin and destination, a set of intervening barriers, and a series of personal factors to formulate general hypotheses about the volume of migration, the expansion and counter-flow of migration, and the characteristics of migrants. win. According to Lee, migration is a selective flow based on positive and negative factors in origin and destination.

In Zipf's theory, the distance between the origin and the destination is an important factor in determining internal migration. It is assumed that there is a position or attraction at the destination that is not present at the origin. In fact, in his migration plan, Zipf focuses on the interrelationships between the distance factor and the gravity factor, as well as emphasizing the potential implications of human interaction.

To analyze internal migration, Michael Todaro and Harris assume a two-part model for the domestic economy, which is the same as villages and cities. These two sectors are different in terms of type of production and income. The urban sector produces industrial goods, some of which are used within cities and some of which are exported to villages. The rural sector also has two

options: first, to use all its labor force to produce agricultural products and export some of these products to the urban sector. The second possible way for the village is to use part of its labor force in the field of agriculture and export another part of this labor force to the cities and receive the wages paid to them in the form of industrial goods.

The theory of dependence considers migration as a compulsory thing that arises based on the lack of development of one environment in relation to another environment and the dependence of the non-capitalist sector on the sector. Dependency theory believes that the causes of migration can not be separated from its effects, because migration on the one hand is the result of unequal development and on the other hand is the cause of deepening unequal development. But in any case, to present their views in their discussions and research, they have presented the causes and effects of migration separately.

Xing Mao (2003) used cross-regional immigration flows in the United States at the micro and macro levels during the period 1985-1990 using sampling methods and census data. Human ecology and the model of gravity have been the theoretical foundations of macro-level analysis and the theory of theoretical foundations of micro-level research. The results of this study show that variables such as state unemployment, population density, climate index and non-white concentration have a strong relationship with interstate migration. Perspectives on human ecology are appropriate for understanding and analyzing interstate migration in the United States.

Lack of income and hope for higher wages is one of the main factors that many studies and researches have emphasized as the most important determining factor of migration. The high level of relative incomes in provinces and immigrant areas compared to other regions has always been confirmed as one of the main factors underlying migration in many experiments and experimental studies in Iran (Adibi, 1982, Pirasteh, 1985, Safaei, 1989, Shirkarand, 1992, Bagheri, 1996, Taghi, 1992).

In many studies, the lack of job opportunities at the origin and the existence of more job opportunities in the destination has been emphasized as one of the determinants of internal migration (Kazeruni 1982, Pirasteh 1984, Maher 1993, Zanjani, 2001, Gharabaghian, 1996). Gharabaghian et al. (1996) in a study

entitled "The effect of some causes of labor migration in Iran" concluded that the relationship between income and migration with the introduction of employment variables has become significant. So the income factor was not the only motivation for migration in Iran. Khoshkalam Khosrow Shahi (1999) in a study entitled The causes of migration to Tehran has concluded that the factor of job opportunities in comparison with the factor of income is not an important factor in explaining the migration behavior of residents of different provinces. It seems that this type of discrepancy in the degree of determinants of migration factors is related to the temporal and spatial conditions of the studies. Therefore, it can not be said with certainty that the effect of various factors is constant over time.

In some studies, the natural factor of population growth has been emphasized as one of the main determinants of migration. Studies of Khoshkalam (1972), Alizadeh and Kazeruni (1982), Zahedi Mazandarani and others (1985), Sabzian Esfahani (1987), Pour Jalali and others (1997) in the field of internal migration in Iran have shown that demographic factors, especially population growth and density, determine Are the main providers of migration in Iran. The following figure shows the model of migration determinants in the cities of Khorasan Razavi province:

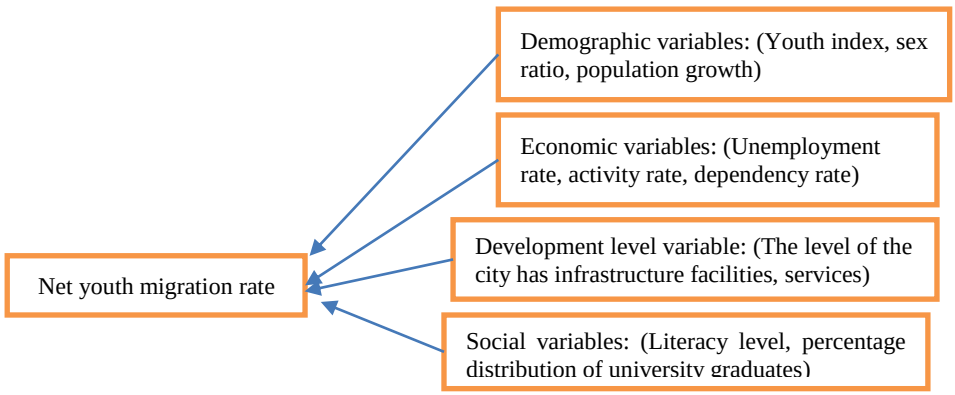

Figure 1. The relationship between the level of development and the rate of migration

3. Methodology

The research method is secondary analysis of 2011 census data. Findings show that the factors of finding a job, looking for a better job and job transfer

and education have been the most important reasons for youth migration in the cities of Khorasan Razavi during the period.

The location of this research is the cities of Khorasan Razavi province. According to the latest divisions of the country, in 2011 Khorasan Razavi province has 27 cities named Bakhrez, Bajestan, Bardaskan, Binalood, Taybad, Takht Jolgeh, Torbat Jam, Torbat Heydariyeh, Joghtai, Jovein, Chenaran, Khalilabad, Khaf, Khoshab, Dargaz, Roshtkhar, Zaveh, Sabzevar, Sarakhs, Fariman, Quchan, Kashmar, Kalat, Gonabad, Mashhad, Mehvalat, and Neishabour. The study data were extracted from the results of the general population census in 2006 and 2011.

The studied indicators include indicators of educational development, indicators of agricultural development, indicators of infrastructure sector and indicators of economic development.

A) Indicators of educational development

The indicators of the educational part of this research include: teacher to student ratio in primary school, teacher to student ratio in middle school, teacher to student ratio in secondary school, class to student ratio in primary school, class to knowledge ratio In middle school, the ratio of class to student in high school, the number of students to the total population, the number of students to the population over 10 years old, the ratio of female to male students in the city, the percentage of city employees by literacy, the percentage of literate in the city, the ratio of literate Higher education for all literates, the proportion of students in the population aged 6 and over, and the percentage of literate women.

B) Agricultural development indicators

Percentage of literacy of agricultural workers, ratio of area under cultivation to city area, yield per hectare of irrigated wheat, yield per hectare of irrigated barley, yield per hectare of rain-fed wheat, yield per hectare of rain-fed barley, ratio of irrigated area to total area under cultivation, poultry Per farmer, number of tractors per hundred hectares of cultivation, number of harvesters per thousand hectares of cultivated area, ratio of cultivated area to city area, ratio of irrigated area under exploitation.

C) Indicators of the infrastructure sector

Ratio of total roads to the area of the city, ratio of asphalt roads to the total area of the city, ratio of asphalt roads to the area of the city, ratio of total roads per 100,000 population, ratio of asphalt roads per 100,000 population, roads The city is related to the area of the province, the ratio of road roads to the area of the city, the ratio of main roads to the area of the city.

D) Indicators of economic development

Percentage of employment, activity rate, inversion of dependency burden, ratio of city area to area of province, percentage of women employment, ratio of industrial sector employees to total employees, share of the population of the region from the province, percentage of urbanization.

4. Findings

Findings show that 41% of immigrants in Khorasan Razavi province are aged 15-29. 25.7% are in the age group of 30-44 years. Therefore, the age structure of migrants in Khorasan Razavi province is young. The largest share of young immigrants is related to the cities of Bakhzar, Khoshab, Zaveh, Roshtkhar, Joghtai, Bajestan, Takht Jolgeh.

Table 1. Age composition of migrants entering the cities of the province during the period 2006-2011

City	0-14	15-29	30-44	45-59	+60	Total
Bakharz	19	57.1	14.3	4.8	4.8	100
Khoushab	13.2	55.3	15.8	10.5	5.3	100
Zaveh	17.5	55	25	2.5	0	100
Roshtkhar	17.5	52.5	22.5	7.5	0	100
Goghatai	21.6	51.4	21.6	5.4	0	100
Bejestan	25	50	21.4	3.6	0	100
Takht Golgeh	21.1	50	23.7	0.0	5.3	100
Jovein	23.2	47.8	23.2	4.3	1.4	100
Kalat	26.1	45.7	19.6	8.7	0	100
Kashmar	24.2	44.7	26.8	2.6	1.6	100
Taybad	25.9	43.9	23.7	4.3	2.2	100
Mashhad	23.3	41.8	25.2	7.5	2.2	100
Fariman	25.4	41.2	28.1	4.4	0.9	100
Neyshabour	24.5	40.1	25.9	6.6	3	100
Mahvelat	29.1	40	27.3	1.8	1.8	100
Sabzevar	24.5	39.5	26.3	5.3	4.5	100
Binaloud	21.2	39	26.3	10.2	3.4	100
Torbat jam	29	38.7	24.4	5.5	2.5	100
Khaf	27.9	38.4	26.7	4.7	2.3	100
Khalilabad	25	38.3	28.3	8.3	0	100
Sarakhs	24.6	37.7	28.9	7.9	0.9	100
Bardaskan	25	37.5	30.4	5.4	1.8	100

Qouchan	23	37	28.3	8.7	3	100
Gonabad	24.1	36.1	25.6	12.0	2.3	100
Torbat heydarieh	25.6	33.8	28.6	8.3	3.8	100
Chenaran	27.9	32.8	26.6	10.4	2.3	100
Dargaz	28	31.7	29.3	7.3	3.7	100
Total	24.1	40.7	25.7	7.1	2.4	100

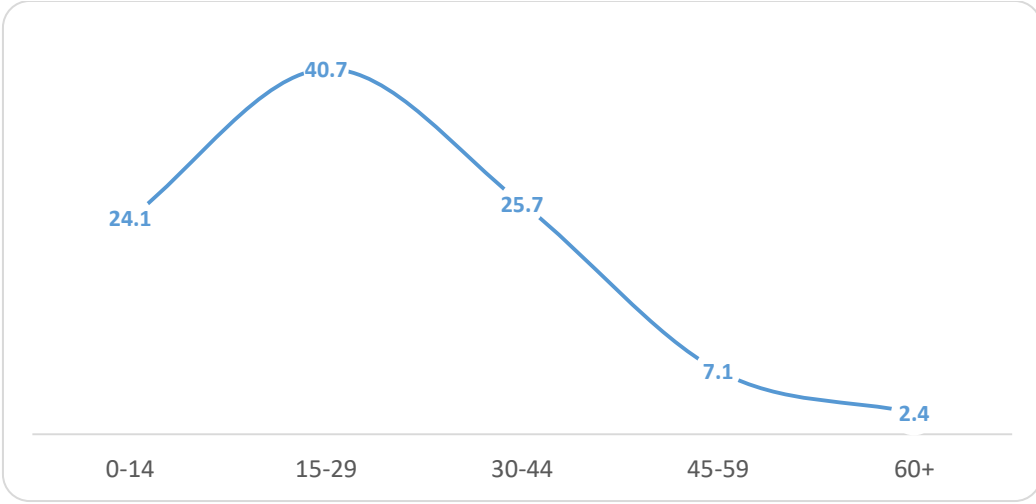

Figure 2. Age pattern of intercity migrants based on sample data of 2% census

Table 2 shows the most important reasons for youth migration in Khorasan Razavi province by gender and age between 2006-2010. While 64.6% of immigrants were women following the head of the household, 26.8% of men emigrated following the head of the household. Following the head of the household is the most important factor in migration among young men. The third factor is the relocation of educated youth. Among young girls, continuing their education after emigrating, following the head of the household, is the most important factor in migration.

Table 2. The most important reasons for youth migration in Khorasan Razavi province by gender and age between 2006-2010

Age/ Gender	Total	In search of work	Looking for a better job	Job transfer	education	End of education	Military service	Access to housing	Following the family	other	Not stated
Male/ Female	297992	6.2	4.9	6.1	16.2	1.1	4.5	6.2	45.3	7.3	2.2
15-19	35438	1.8	0.8	0.6	48.3	0.4	3.5	2.0	38.0	3.5	1.1
20-24	53306	5.7	3.1	1.6	28.6	2.5	17.1	2.6	33.3	4.3	1.1
25-29	46440	12.7	8.7	7.4	8.3	2.7	6.2	6.2	40.0	6.5	1.2
30-34	32895	11.7	10.7	14.7	2.9	0.8	0.5	9.8	38.2	9.6	1.1
35-39	20708	10.0	10.1	18.1	1.8	0.5	0.2	12.7	36.1	9.5	1.1

Male	152263	10.6	8.5	10.3	15.9	1.2	8.8	8.2	26.8	7.5	2.2
15-19	17200	2.7	1.1	0.7	51.1	0.4	7.2	1.9	31.0	2.8	1.2
20-24	26848	9.6	4.9	2.2	26.7	2.5	33.9	3.0	13.1	3.1	0.9
25-29	23102	22.8	15.7	12.5	8.7	3.0	12.4	8.8	8.3	6.6	1.2
30-34	16857	20.2	19.2	25.4	3.0	0.9	1.0	14.3	5.5	9.4	1.0
35-39	11326	16.2	16.8	29.5	2.1	0.6	0.3	18.3	4.4	10.7	1.0
Female	145729	1.7	1.1	1.7	16.6	1.0	0.0	4.1	64.6	7.1	2.2
15-19	18238	0.9	0.6	0.6	45.6	0.4	0.0	2.0	44.6	4.2	1.1
20-24	26458	1.7	1.3	1.0	30.5	2.4	0.0	2.3	53.8	5.6	1.3
25-29	23338	2.7	1.8	2.5	8.0	2.4	0.0	3.6	71.3	6.4	1.2
30-34	16038	2.7	1.8	3.4	2.7	0.7	0.0	5.2	72.6	9.8	1.1
35-39	9382	2.5	1.9	4.2	1.5	0.3	0.0	6.0	74.3	8.0	1.2

Source: Authors' calculation based on 2011 census data

One of the most important issues related to migration is the quality of the labor force. In this regard, education and employment status are the two main components in the migrant's adaptation to the destination community. Table 3 shows the employment status of migrants in the destination migration city. Overall, 38% of immigrants have been employed since migration. And 62% were unemployed. The employment situation of migrants in the cities of Mahvelat, Kashmar, Jovein, Zaveh has been better than other cities.

Table 3. Employment status of young migrants in migration destination cities

City	Has worked in the last 7 days	Family worker	Has a job in the last 7 days	Worked in 7 days	Total
Mahvelat	57.1	0.5	0	40.5	100
Kashmar	47.7	1	0	51	100
Jovein	47.3	2.7	0	52.7	100
Zaveh	47.1	7.1	0	47.1	100
Khalilabad	46.9	6.9	0	46.9	100
Fariman	45.7	3.3	0	53.3	100
Bejestan	45.5	0	0	50	100
Takht Golgeh	42.4	1.5	0	51.5	100
Roshtkhar	41.7	5.6	0	55.6	100
Torbat heydarieh	40.9	8.2	0	58.2	100
Torbat jam	40.9	8	0.5	58	100
Bardaskan	40.9	9.1	0	59.1	100
Khaf	40	0	0	60	100
Goghatai	40	0	0	60	100
Neyshabour	39.2	8	0.2	58	100
Chenaran	38.3	9.3	0	59.3	100
Mashhad	38.2	1.2	0.5	61.2	100
Taybad	37.4	0.9	0.9	60.9	100
Gonabad	37	8.3	0.9	58.3	100
Dargaz	35.4	1.5	1.5	61.5	100
Binaloud	34.3	4.6	0	64.6	100
Kalat	34.2	7.9	2.6	57.9	100
Sabzevar	33.3	5.7	0.3	65.7	100

Sarakhs	33	7	0	67	100
Khoushab	32.4	0	0	50	100
Bakharz	29.4	0.6	0	70.6	100
Qouchan	27.6	9.8	1	69.8	100
Total	38.4	0.2	0.4	60.2	100

Among young migrants, the three components of literacy, employment status and employment are among the determinants of the quality of young migrants in terms of human capital status. The illiteracy rate among the immigrants of Bakhzar, Takht Jelgeh, Khoshab Chenaran and Roshtkhar is 15.8, 11.8, 11.1, 10.3 and 10.3, respectively. The lowest illiteracy rates among young immigrants are in Zaveh, Gonabad, Bardaskan, and Kashmar counties of 0, 1.7, 2, and 2.3, respectively. By combining the three components of literacy status, employment status and working conditions in the migration destination, an index called the quality of incoming immigrants has been prepared.

Table 4. Job status and literacy of young migrants in immigration destination cities

City	Percentage of migrants by age 15-29	Illiterate migrants	looking for job	not worked in the last 7 days
Bakharz	57.1	15.8	6	70.6
Takht Golgeh	50	11.8	2.6	51.5
Khoushab	55.3	11.1	5.3	50
Chenaran	32.8	10.3	5.2	59.3
Roshtkhar	52.5	10.3	23.7	55.6
Jovein	47.8	10	7.4	52.7
Torbat jam	38.7	9.6	5.7	58
Kalat	45.7	9.5	4.4	57.9
Binaloud	39	9.5	1.7	64.6
Torbat heydarieh	33.8	8.5	4.2	58.2
Bejestan	50	8.3	10.7	50
Khaf	38.4	7.9	4.7	60
Sabzevar	39.5	7.5	6.3	65.7
Qouchan	37	7.1	4.1	69.8
Neyshabour	40.1	6.7	4.7	58
Mahvelat	40	6.4	9.4	40.5
Goghatai	51.4	6.3	8.3	60
Mashhad	41.8	6.2	7.7	61.2
Sarakhs	37.7	5.9	2.7	67
Khalilabad	38.3	5.9	8.6	46.9
Fariman	41.2	5	7.3	53.3
Taybad	43.9	4.8	6.5	60.9
Dargaz	31.7	4.5	9.5	61.5
Kashmar	44.7	2.3	5.8	51
Bardaskan	37.5	2	7.5	59.1
Gonabad	36.1	1.7	4.6	58.3
Zaveh	55	0	2.6	47.1
Total	40.7	6.6	6.6	60.2

Table 5 classifies the cities of Khorasan Razavi province based on the quality of incoming young migrants. The quality level of immigrants entering Torbat-e Heydarieh, Jovein, Gonabad, Khoshab, Bejestan, Takht-e Jolgeh, Fariman, Kashmar, Khalilabad, Zaveh and Mehvalat has been evaluated as desirable. In contrast, the quality level of immigrants entering the cities of Quchan, Bakhzar, Roshtkhar, Sabzevar, Sarakhs, Khaf and Joghatai is evaluated as weak.

Table 5. Classification of cities in Khorasan Razavi province based on the quality of young immigrants

Qualitative level of immigrants	factor score	City
Optimal	29-33	Torbat Heydariyeh, Jovein, Gonabad, Khoshab, Bejestan, Takht Jolgeh, Fariman, Kashmar, Khalilabad, Zaveh, Mahvelat
medium	27-28	Taybad, Mashhad, Dargaz, Khaf, Kalat, Chenaran, Torbat Jam, Neishabour, Bardaskan
Weak	24-26	Quchan, Bakhzar, Roshtkhar, Sabzevar, Sarakhs, Khaf, Joghatai

Now the relationship between the level of development and migration in the cities of the province is discussed. In this section, we examine the most important determinants of migration and population growth in the cities of Khorasan Razavi province. In order to study the determinants of migration index, four development indicators have been selected which have a more important role in the variance of migration variables based on the theoretical framework and review of previous studies. These indicators are: 1) Economic Development Index, 2) Infrastructure Development Index, 3) Agricultural Development Index, 4) Educational Development.

Due to the small number of sample units and the volume of independent and dependent variables, the most appropriate inferential statistical method was multivariate analysis of variance (MANOVA). Before discussing the statistical relationships between the variables, a description of the application of this method seems necessary. To use multivariate analysis of variance, at least one grouped independent variable or a category with three or more levels and at least two quantitatively related interrelated variables is required (Myers, Gamet et al., 2006).

The method of multivariate analysis of variance not only allows us to study the main effect of independent variables but also through this method the

interactive effect of independent variables can be measured. Explaining that because all of these calculations are performed simultaneously, it not only examines the possibility of examining the differences between the different levels of a dependent variable, but also the differences between them in a combination of several dependent variables.

Multivariate analysis of variance uses four tests to examine the significance of the effect of independent variables on the set of dependent variables, which are: PillaisTrace test, Hotling Trace test, Wilks Lambda test, and Roys Leargedt Root test. When the independent variables have two levels, the F test will be the same for all four tests. But when the independent variables have two levels. The F value calculated for the four tests will vary; most researchers report only Wilk's lambda values out of the four tests (Bryce, Camp 2004, Myers, Gamett, Grecio 2006). In this study, according to statisticians, we will use Wilks Lambda.

In Table 6, the cities of Khorasan Razavi province are ranked based on development level indicators. As can be seen, Mashhad with a score (0.53), Gonabad with a score (0.47), Jaghtai with a score (0.44) and Bajestan with a score (0.43) are in the first to fourth ranks of development in Khorasan Razavi province. In contrast, Khalilabad with a score (0.27), Bakhzar with a score (0.28), Chenaran with a score (0.30) and Khoshab with a score (0.30) had lower development ranks among the cities of the province.

Table 6. Ranking of cities in Khorasan Razavi province according to development indicators

Rank	City	Economic Development Index	Infrastructure development	agricultural development	Educational development	General development index
1	Mashhad	0.63	0.47	0.34	0.57	0.53
2	Gonabad	0.34	0.45	0.44	0.50	0.47
3	Goghatai	0.49	0.42	0.29	0.71	0.44
4	Bejestan	0.30	0.41	0.41	0.45	0.43
5	Sabzevar	0.40	0.40	0.23	0.73	0.40
6	Jovein	0.35	0.37	0.29	0.67	0.39
7	Binaloud	0.51	0.35	0.24	0.40	0.39
8	Kashmar	0.21	0.18	0.59	0.38	0.38
9	Sarakhs	0.36	0.19	0.55	0.24	0.37
10	Mahvelat	0.17	0.46	0.46	0.30	0.37
11	Neyshabour	0.27	0.36	0.45	0.28	0.37
12	Dargaz	0.33	0.39	0.48	0.22	0.36
13	Bardaskan	0.25	0.35	0.30	0.40	0.36
14	Torbat heydarieh	0.23	0.32	0.43	0.24	0.35

15	Kalat	0.19	0.45	0.55	0.22	0.35
16	Khaf	0.25	0.28	0.28	0.47	0.35
17	Torbat jam	0.34	0.36	0.43	0.28	0.35
18	Fariman	0.19	0.41	0.31	0.19	0.34
19	Qouchan	0.21	0.44	0.43	0.25	0.34
20	Taybad	0.20	0.38	0.32	0.27	0.33
21	Roshtkhar	0.18	0.20	0.33	0.32	0.31
22	Takht Golgeh	0.21	0.29	0.39	0.21	0.30
23	Zaveh	0.21	0.31	0.33	0.21	0.30
24	Khoushab	0.30	0.30	0.15	0.60	0.30
25	Chenaran	0.18	0.21	0.37	0.13	0.30
26	Bakharz	0.18	0.26	0.20	0.20	0.28
27	Khalilabad	0.17	0.19	0.01	0.19	0.27

Table 7 shows the correlation coefficient between development development indicators and the net rate of migration and annual population growth. The relationship between agricultural development index and net migration and the percentage of annual population growth in the cities of Khorasan Razavi province has been significant. Given that the population structure in the cities of Khorasan Razavi is mainly rural, it seems that paying attention to agricultural development in rural areas of the province will have a significant effect on reducing the emigration of rural areas.

Table 7. Correlation coefficient between development indicators and the net rate of migration and annual population growth

Variables		Educational	infrastructural	Agriculture	Economical	Development	Migration	Population growth
Educational	Pearson	1						
	Sig.							
	N	27						
infrastructural	Pearson	.343	1					
	Sig.	.040						
	N	27	27					
Agriculture	Pearson	-.258	.164	1				
	Sig.	.097	.207					
	N	27	27	27				
Economical	Pearson	.660	.374	-.072	1			
	Sig.	.000	.027	.361				
	N	27	27	27	27			
Development	Pearson	.617	.609	.298	.768	1		
	Sig	.000	.000	.065	.000			
	N	27	27	27	27	27		
Migration	Pearson	.068	-.183	-.412	.166	-.104	1	
	Sig.	.368	.181	.016	.204	.303		
	N	27	27	27	27	27	27	
Population growth	Pearson	.026	-.310	-.465	.155	-.068	.680	1
	Sig.	.449	.058	.007	.220	.369	.000	
	N	27	27	27	27	27	27	27

The determinants of migration and population growth are now examined. Table (8) of Wilks Lambda test, F test, significance level and partial square to report the significance of the effect of development indicators on migration and population growth in the cities of Khorasan Razavi province are reported. This table shows the intergroup differences in the dependent variables in terms of the levels of the independent variables. As can be seen, the values of net migration and population growth in the cities of Khorasan Razavi province have been significant only in terms of the interactive effect of economic and agricultural development. Also, the main effect of economic development with a reliability coefficient of 0.92 had a significant effect on dependent variables.

The main effect of economic development index with Wilk's lambda value of 0.77 and F value of 2.83 is significant on the set of dependent variables. This means that the differences between cities in the levels of economic development have had significant effects on creating different levels of migration between the cities of Khorasan Razavi.

Table 8. Wilks-Lambda multivariate test to significantly evaluate the effect of development indicators on migration and population growth

Source of changes	Wilks Lambda	F test	significance level	Partial Eta
Economic Development Index	0.77	2.83	0.080	0.230
Infrastructure Development Index	0.947	0.532	0.594	0.05
Educational Development Index	0.86	1.56	0.234	0.14
Agricultural Development Index	0.825	2.02	0.16	0.175
Interactive effect of agricultural and economic development	0.722	3.65	0.045	0.280
Interactive effect of infrastructure and economic development	0.978	0.218	0.805	0.022

In Table (8), the effect of independent variables on dependent variables (net urban migration) is calculated with the partial square root index. The square values of the partial oscillations range from zero to one. The square of ETA for the independent variable is the ratio of the variance of the dependent variable that is related to a main or interactive source of the effect. It is interpreted almost like Beta in multivariate regression. Partial ectasia of 1%, 6% and 14% indicate low, moderate and high efficacy. For all the main and interactive effects of independent variables, the value of partial eta is more than 0.14, which means the large effect of independent variables on the variance of dependent variables. Therefore, the interaction effect of economic development and agricultural development with a value of 0.280 and the level of economic

development with a value of 0.230 had more effects on the variance of dependent variables.

Table (9) reports the main and interactive effects of independent variables on the net rate of migration and annual population growth in the period 2006-2011. We now examine the main and interactive effects of each of the independent variables on the dependent variables. First, we study the effect of economic and agricultural development indicators on migration and population growth in the cities of Khorasan Razavi province. Economic development index with 99.5% confidence has a significant effect on migration, but the effect of this variable on the annual percentage of population growth is not significant. Also, the agricultural development index with a confidence coefficient of 99.5% had a significant effect on the rate of migration, but the effect of this variable on the annual percentage of population growth was not significant.

Table 9. Investigation of the main and interactive effects of independent variables on migration indicators in the decade 2006-2011

Source of effect	Dependent variable	Average squares	D.f	F test	significance level	Partial Eta
Adjusted Model	Net migration	1262.7	6	2.69	0.044	0.447
	Population growth	1.7	6	2.07	0.103	0.383
Constant	Net migration	374.4	1	0800	0.382	0.038
	Population growth	1.2	1	1.38	0.252	0.65
Economic Development Index	Net migration	2474.9	1	5.28	0.032	0.209
	Population growth	0.320	1	0.381	0.544	0.019
Infrastructure Development Index	Net migration	75.2	1	0.161	0.693	0.008
	Population growth	0.9	1	1.07	0.313	0.051
Educational Development Index	Net migration	1507.3	1	3.22	0.088	0.139
	Population growth	1.3	1	1.54	0.229	0.072
Agricultural Development Index	Net migration	1439.3	1	3.07	0.050	0.133
	Population growth	0.007	1	0.008	0.929	0.000
Interactive effect of agricultural and economic development	Net migration	3307.7	1	7.06	0.015	0.261
	Population growth	0.604	1	0.719	0.407	0.035
Interactive effect of infrastructure and economic development	Net migration	28.8	1	0.062	0.806	0.003
	Population growth	0.122	1	0.145	0.707	0.007

The interactive effect of economic and agricultural development level on the net rate of migration with 95% confidence is significant and the square of this effect is more than other variables (0.261). This means that the low level of

economic development and agricultural development is one of the main factors of emigration among the cities of Khorasan Razavi province. Considering that Khorasan Razavi province is one of the provinces with a high rural population ratio, paying attention to the agricultural economy and rural development will prevent the uncontrolled migration of villagers to cities and the development of agricultural employment.

Figure 2 shows the relationship between agricultural development and the net rate of migration in the cities of Khorasan Razavi province. Cities with lower levels of agricultural development had a negative or very low net migration rate.

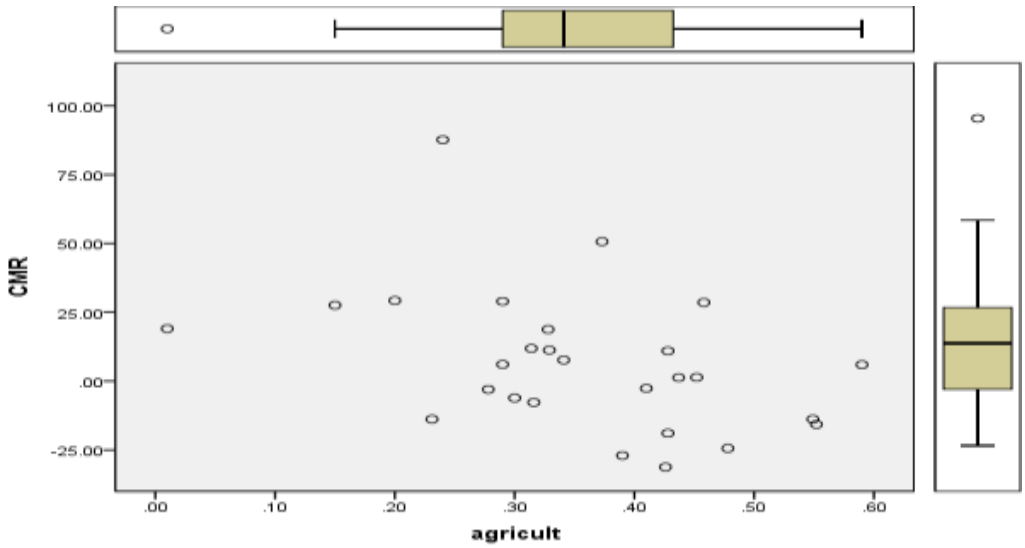

Figure 2. The relationship between agricultural development and the net rate of migration in the cities of Khorasan Razavi province

Figure 3 also shows the relationship between economic development and the net rate of migration in the cities of Khorasan Razavi province. This chart also shows that cities with lower levels of economic development have a net or very low rate of migration.

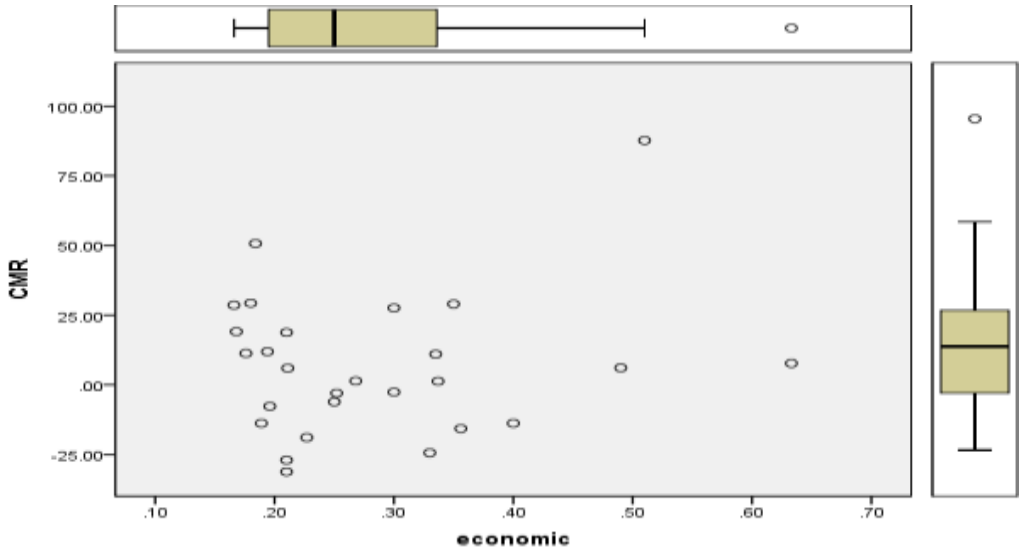

Figure 3. The relationship between economic development and the net rate of migration in the cities of Khorasan Razavi province

5. Conclusion

In this article, the causes of migration in the cities of Khorasan Razavi province are discussed. The research method is secondary analysis of census data. Estimation of net inter-city migration in Khorasan Razavi province in the period 2006 - 2011 showed that Binalood, Chenaran, Bakhzar and Jovein cities had the highest net migration. Quchan (-31.2), Dargaz (-24.4), Torbat Heydariyeh (-18.9), Sarakhs (-15.7), Kalat (-13.8), Sabzevar (-13.8), Torbat-e Jam (-11.0), Taybad (- 7.7), Bardaskan (-6.1), Khaf (-3.0), and Bejestan (-2.6) had a negative immigration balance. The results show that 45.3% of immigrants entering urban areas and 50.7% of immigrants entering rural areas were due to the migration of the head of the household. After this factor, the factor of work, better work and job transfer and education and its end, respectively, were the main reasons for migration to the cities of Khorasan Razavi during the period 2006-2011.

Migration due to employment and access to housing in urban and rural areas is the most important factor in the difference between men and women and has burdened the immigration burden in favor of men. Considering that the most important reason for the migration of women in urban and rural areas is their

dependence on the main immigrants and there is a clear difference between men and women in this regard; In rural areas, the most important factor in the migration of men is family following. Given that in other options (education and ending, other reasons not stated) there is not much difference between gender and the reason for migration, but there is a difference between residence and all the reasons for migration.

Calculating the partial values of development indicators will have a significant effect on reducing the number of emigrants in the cities of the province. The importance of the interaction effect of economic development index and agricultural development index with a value of 0.280 and the level of economic development with a value of 0.230 had more effects on the variance of dependent variables. In other words, the promotion of economic and agricultural development indicators can play a significant role in curbing the migration of cities in Khorasan Razavi province.

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