

ORIGINAL ARTICLE

The effects of industrial towns on development of surrounding areas

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In this study, the effects of industrial towns on development of surrounding areas have been studied. Data in this study is related to the years 2017-2018. In this research, 358 villagers of Khayyam industrial town in Neyshabour, Iran were studied as a sample. In order to study deeply and combinations of variables, factor analysis was used to clarify the issue. Since the goal of factor analysis summarizing large number of variables is operating within the specified number. Therefore, the first step is to choose the appropriate variables among the variables used in the analysis. Bartlett's test and K.M.O method was used to determine the suitability of the data in the factor analysis. Variables related to each factor was ranked and it was found that in each factor, which variables have the most positive effects and which variables have the most negative effects. Also variables related to positive and negative effects were ranked and the most positive and negative factors were identified on agriculture. Kaiser was used to determine the number of factors. By calculating the sum of positive and negative variance of economic factor was determined that industrial estate of Khayyam has strengthened agriculture sector in the study area.

Keywords: Economic factors; social factors; physical factors; environmental factors; agricultural agents

Introduction

Rural industrialization has an important place in strategies and policies of developing countries (Dutta, 2004). These countries have included rural industrialization strategy in their development plans since the mid-1970s (Rezvani, 2011). Industrialization policy in these countries generally followed with the aim to increase production and job opportunities. The targets in rural industrialization have been mixed with rural development strategies in order to create industrial growth centers in rural areas (Wang, 2001). Rural industrialization increases the volume of investment in the agricultural sector that the issue will modernize agriculture and as a result, helps increase production (Karbasi and Khaksar, 2003). Although poverty is a global problem, its highest effect is observable in the villages, which is being considered as the most important problem in rural areas. The poverty is the reason for the inefficiency of the rural economy to provide employment opportunities, income and living improving standards (Moradi and Motiee Langroodi, 2005). Rural industrialization has led to the development of the rural economy, absorb some of the rural population, and can partly solve the unemployment problem (Sunder, 2009). Theory of industrialization of rural areas, as a catalyst to create sustainable jobs and as a last resort to solve the problem of poverty in rural areas, is accounted as a potential part to solve the problem of unemployment and a relieving factor for underserved rural areas (Samal, 1997). Industrial expansion has reduced rural poverty and contributed to sustainable livelihoods of the villagers. As well as reducing, the consequences of rural migration and increasing prosperity are other consequences of the industries. If small businesses and home industries are associated with agricultural activities in the region, they can play a more effective role in their developments (Dass and Ashim, 2011). Industrial clusters in rural areas have caused the division of labor in the production process and have provided opportunities for small companies and entrepreneurs in the region (Hang et al., 2008). The only way to solve the problem of poverty and unemployment in rural areas is to create new job opportunities and planning for the establishment of industry in rural areas not only can create jobs, but also fulfill rural development objectives (Nayak, 1994). Abraham (1994) believed that the establishment of a stable industry in rural areas increase revenue as well as income leading reduced income differences between urban and rural residents. Rural industrialization using local resources results in the consolidation of decentralization of the industries and is a bridge that creates links between urban and rural areas and reduces the difference between living in urban and rural areas.

Development of non-agricultural activities increases not only women's participation in economic activity, but as its earnings is very important for low-income families in rural areas, but improves their economic status. The introduction of professional industries and new jobs in rural areas causes the creation of new fields of work and activities and more familiarity about other areas of rural economic activities. Employment in non-agricultural sector and thus peasants' settlement in the

countryside, in addition to providing economic objectives, helps achieve their preserve cultural identity and social personality in social goals (Barati, 2003).

The establishment of industrial zones in the country arises a wave of new jobs, reduces unemployment, and increases job satisfaction (Rezvani et al., 2010). Rural plants attract the rural population and agricultural and prevents immigration (Barati, 2003). Given the above-mentioned cases, it can be concluded that the development of industrial estates near the villages have impact on the coverage area through economic, social, agricultural, environmental and physical indexes. Therefore, the main issue of this study is to investigate whether the establishment of Khayyam industrial zone in Neyshabur has developed areas around them or not?

Literature review

Intensive studies have been carried out on the establishment of the industry and its impacts in geographical areas. The following are some of the studies inside and outside the country: Kiyani et al. (2015), showed that the most important effects of the factory over Shahnjryn are among social and economic factors, including increased employment, economic development in the region, improving facilities and services, the development of side jobs, improved rural income, and satisfied people with the increased quality of rural roads. Also environmental factors, including the destruction of agricultural lands, sabotage of agricultural land, contamination of soil, reducing agricultural productivity and noise pollution are in next levels. Sajasighidari et al. (2015), showed that in general, non-agricultural entrepreneurs have positive effect on components of all three dimensions of economic, social and environmental quality of life. Bandani et al. (2015), showed that the mean score in total non-farmers is more and this means that non-farmers believe more agricultural activities impact on the development of the lives of villagers compared to farmers. Hamzee et al. (2014), showed that in most social and cultural measures especially the relationship with the media and benefit from insurance services, industrial estate could lead to positive change in the situation of rural workers. Barghi et al. (2014), showed that the establishment of Aghqala Industrial Estate economically has significant effects on the development of their surrounding rural areas and, economically significant difference was observed in other components of the studied areas except 'welfare and purchasing power.

Mirlotfi and Molanoruzi (2014) in a study showed that there are significant differences between the equality assuming of the social, economic and health infrastructure components in treatment, recreation and leisure, education, employment, income, infrastructures and housing facilities of employed villagers in industrial Estate before and after employment in Khayyam industrial estate.

Poorramezan and Akbari (2014), in a study showed that establishment of rural industries and their relationship with the agricultural sector has positive and significant effects on supporting different stages of production, bolstering the rural economy, increasing the level and diversity of production and preservation of agricultural land and rural perspective.

Portaheri et al. (2013), in a study found that economically, the estate affected its surrounding villages and the greater impact was discussed on poverty reduction and diversification of economic activities. Shurmyj and Asadiazizabadi (2013), in a study showed that the most important effects of settlements were development of marketing services, economic recovery of corporates and increased level of service in the region. Five factors of production, market, investment, services, education and consulting and communication have explained 58.37% of the variance related to the effects of settlements. Bozarjmehri et al. (2012), in a study showed that most economic indicators such as levels of employment, income, etc., have significant differences in the sample groups and rural workers employed in settlements had a better economic situation. Tavakol and Nozari (2012), showed that industrial development and technological developments of Parsian gas refinery in Hoories district in Mohr estate have followed conflicting results. On the other hand, creating sustainable income, employment and infrastructural facilities, provided opportunities and great potential for the villagers. Adewunm et al. (2011) empirically identified the impact of non-agricultural income on poverty reduction among rural families in Yao Uugan part of Nigeria's states and showed that age, education level and family size affected the poverty rate among farmer families as its intensity was more among households with low literacy levels. In addition, employment in non-agricultural activities has added to the share of total household income in the rural areas. Dass and Ashim (2011) studying the pattern of industrialization in the North East India found that industrial expansion could reduce rural poverty and contribute to sustainable livelihoods of the villagers. Also showed that the reduction of rural migration and increased prosperity are the consequences of the industry. If small businesses and home industries associate with agricultural activities in the region, they can play a more effective role in their development. Hang et al. (2008) examined the role of industrial clusters in rural area of Wenzhou in China and showed that industrial clusters caused the division of labor in the production process and provided opportunities for small companies and entrepreneurs in the area. Wang et al. (2008), in a study entitled "rural industrial areas and water pollution in China" had considered the issue as a serious problem and had been considered contamination of water resources in these areas because of these industries.

Materials and methods

The geographical location of the study area

Khayyam industrial town, located in Zebarkhan section in Neyshabour city, was approved by the Cabinet on 1990 March 16th and the operations began in 1991. The town covers an area of 246 hectares and industrial area of 10936 hectares, located at a distance of 20 kilometers on Neyshaboor-Mashhad road. About 102 companies of the 288 registered units in the town are in operation, 108 have not been operated yet, and 78 units are announced as idle plans. Food industry, Metal and chemical enterprises are the largest in number among registered companies, which have come into operation in the town. 2,050

people work in a town that 445 people (21.7 percent) are living in rural areas, 137 people (6.6%) of Kharvin, and 104 (5%) of Dorood and 1364 people (66.5 percent) are from the city of Neyshabur. Therefore, Khayyam industrial Park has created employment opportunity for 686 residents of surrounding villages (Khayyam industrial estate, 2015).

Research hypothesis

The main hypothesis: Khayyam industrial park has economically strengthened the agricultural of Neyshabur.

Secondary hypotheses:

1. Khayyam industrial park has strengthened positive social effects on area.
2. Khayyam industrial park has strengthened positive agricultural effects on area.
3. Khayyam industrial park has strengthened positive physical effects on area.
4. Khayyam industrial park caused positive environmental effects on area.

Data analysis method

In this research, factor analysis is used in order for deeper studying of themes and categories of variables to clarify the issue. Since the purpose of factor analysis is to summarizing large number of variables in a certain number of factors, the first step is to select the appropriate parameters of the variables used in the analysis. Therefore, Bartlett test and KMO method have been used in order to determine the suitability of data for factor analysis. According to KMO method which is also known as M.SA test, the suitability of data for factor analysis is confirmed if the obtained amount is greater than 0.5. In this study, variables related to each factor (index) are ranked to finally determine which variables have the greatest positive impact on both platforms and which variables have the greatest negative effects. In addition, the variables related to positive and negative effects will be ranked and the most positive and negative factors in the agricultural area are studied. Kaiser rule is used to determine the number of agents. The total positive or negative impact of the town on the agricultural area can be identified by calculating the sum of the positive and negative variances of each factor.

Results and discussion

Ranking Khayyam Industrial Park effects on the agricultural sector.

Ranking positive effects

The figures in Table 1 shows positive effects' ranking of Industrial Park Khayyam on the agriculture sector of its surrounding villages. According to this table, it can be concluded that rural income increment, improvement in the quality of roads in the region, providing farmers respectively ranked the educated sections of rural employment and providing seasonal employment for farmers' first to fourth in terms of villagers in these areas, which are the most well-known positive effects.

KMO, based on the results of the factor analysis in Khayyam Industrial Park, equaled to 0.696 and Bartlett was equal to 4014.25 at 1% significant level. In this study, five factors were with eigenvalues greater than one according to the Kaiser criteria, which were extracted for the studied area, and the results are shown in Table 2 below. The cumulative variance explained by the five factors is equal to 66.74.

The first factor has the highest specific amount equal to 7.30 that explains 28.7 percent of the total variance and is the most important of positive effects of Khayyam Industrial Park on the agricultural sector in adjacent villages. Being immigration villages, reducing migration to cities, increasing employment opportunities for farmers, raising awareness and expertise among farmers, increasing education opportunities for the farmers' children, farmers easier access to industrial production, providing jobs for the educated class, providing seasonal agricultural employment, increasing employment opportunities in rural areas and quantitative and qualitative improvement of transportation in rural areas are variables of the factor (Table 3).

The second factor entitled as an agricultural agent stresses that Khayyam Industrial Zone has positive effects on agriculture of the region. This factor has eigenvalue of 4.53, explaining about 13.61% of the variance associated with positive effects of Khayyam Industrial Zone on the agricultural sector the study area. Variables such as easier and more sale of crops and livestock, high degree of mechanization in agricultural activities, increment of an average production of crops and livestock, increasing the price of agricultural products, increasing the purchasing power of agricultural inputs and the use of agricultural products (Table 2) are presented in this factor.

Eigenvalue of the economic factor equals to 4.07, explains 13.25 percent of the total variance, and is the third factor among the positive effects of Khayyam Industrial Park on the agricultural sector in adjacent villages. The factor includes variables such as changing consumption patterns of households, increase in farmers' income, increase in average purchasing power of farmers, urban investment in agricultural activities, increases in the prices of agricultural products and ensuring farmers to have a steady income (Table 3). Eigenvalue of physical factors equal to 2.73 that explains 6.63 percent of the total variance and is the fourth factor among the positive effects of Khayyam Industrial Park on the agricultural sector in adjacent villages. Valuable agricultural houses, improving the quality of roads in the region, reconstruction and increasing the quality of houses of rural farmers, space separation in rural areas and quality improvement of streets in the village are the variables of the factor (Table 2).

Eigenvalue of biological-environment factor is equal to 2.32, explaining 4.55 percent of the total variance and is the fifth factor of positive effects of Khayyam Industrial Park on the agricultural sector in adjacent villages. Reducing emissions of the area is the variable of the factor (Table 3).

Table 1. Positive effects' ranking of Industrial Park Khayyam on the agriculture sector.

Rank	Standard deviation	Average	Variables (positive effect)
1	0.841	4.56	income increment
11	1.197	4.05	average increase in the purchasing power of rural people

26	1.48	3.43	attract investment from urban to rural.
22	1.195	3.7	Increases in the prices of agricultural products
23	1.22	3.675	Increasing the purchasing power of agricultural inputs
14	0.99	3.945	Increase in the average production of crops and livestock
13	1.976	2.975	Check villagers steady income
15	1.037	3.88	Increase in the degree of mechanization in agricultural activity
18	1.09	3.81	Sale easier and more crops and livestock
19	1.1	3.78	Reducing inequality in area
20	1.14	3.75	Increasing the value of agricultural land
21	1.18	3.72	Valuable rural homes neighboring industrial township
9	1.05	4.14	Changing food intake
6	0.89	4.32	Creation and enhancement service jobs
17	1.09	3.82	Immigration to villages
16	1.296	3.87	Reducing migration to cities
5	2.388	4.35	Increase employment opportunities in rural areas
22	0.856	4.54	improvement in the quality of roads in the region
7	0.882	4.31	Quantitative and qualitative improvement of rural transportation
3	0.872	4.46	Providing employment for educated sections of rural
4	0.892	4.39	Provide seasonal employment for farmers
10	0.937	4.08	Increase of knowledge and expertise in villages
8	0.922	4.17	Easier access of villagers to the products of industrial town
12	1.082	4.02	Increase education opportunities for rural children
24	1.25	3.67	Reconstruction and increasing the quality of rural houses
29	1.63	3.23	Reduce pollution of the cities
25	1.34	3.57	use of agricultural products in the industry
27	1.53	3.35	Separate spaces in villages
28	1.535	3.35	Improving the quality of village streets

Source: research findings.

Table 2. Factors extracted from factor analysis of the positive effects of Khayyam industrial town.

Factors	Eigenvalues	Percentage of special value	of The frequency percentage of cumulative variance	Percent of total Factors
The first factor (social)	7.3	28.7	28.7	43
The second factor (Agriculture)	4.53	13.61	42.31	20.39
The third factor (economic)	4.07	13.25	62.19	19.85
The fourth factor (physical)	2.73	6.63	48.94	9.93
The fifth factor (environmental)	2.32	4.55	66.74	6.81
Total		66.74		100

KMO =696/0 Sig = 0/000 Bartlett's Test = 25/4014

Source: research findings.

Table 3. Factors extracted for positive effects of Khayyam town with their operating times.

Load factor town	Effects	Variables
0.792	Social (28.7)	Immigration to villages
0.663		Reducing migration to cities
0.799		Increase employment opportunities in rural areas
0.722		Increase of knowledge and expertise in villages
0.63		Increase education opportunities for rural children
0.803		Easier access of villagers to the products of industrial town

0.847		Providing employment for educated sections of rural
0.81		Provide seasonal employment for farmers
0.769		Increase employment opportunities in rural areas
0.716		Quantitative and qualitative improvement of rural transportation
0.803	Agriculture (13.61)	Sale easier and more crops and livestock
0.653		Increase in the degree of mechanization in agricultural activity
0.615		Increase in the average production of crops and livestock
0.708		Increases in the prices of agricultural products
0.766		Increasing the purchasing power of agricultural inputs
0.75		use of agricultural products in the industry
0.541	Physical (6.63)	Valuable rural homes neighboring industrial township
0.678		improvement in the quality of roads in the region
0.608		Reconstruction and increasing the quality of rural houses
0.68		Separate spaces in villages
0.678		Improving the quality of village streets
0.665	Economic (13.25)	Changing food intake
0.676		income increment
0.601		average increase in the purchasing power of rural people
0.505		attract investment from urban to rural.
0.561		Increases in the prices of agricultural products
0.505		Check villagers steady income
0.727	Environmental (4.55)	Reduce pollution of the cities of the region

Source: Research findings.

Ranking negative effects

The information of Table 4 show the ranking of negative effects Khayyam Industrial Zone on the agricultural sector in the surrounding countryside. Given this information, it should be stated that the statements of loss of attention to agriculture and problems in this sector, providing labors of industrial zone from the city, sale and land use change, pollution of underground water in rural settlements, respectively ranked as first to fourth in terms of villagers in these areas which are the most negative effects mentioned by farmers.

Based on the results of the factor analysis, KMO of Khayyam Industrial Park was 0.695 and Bartlett was equal to 3445.7, which were significant at 1%. In this study, according to the Kaiser criteria, 5 factors with eigenvalues greater than one were extracted for the study area and the results are listed in Tables 5 and 6.

The cumulative variance explained by the five factors is equal to 72.78. Social factor has the highest amount equal to 5.89 that was explained 24.33 percent of the total variance and is the most important effect among negative effects of Khayyam Industrial Park on the agricultural sector in adjacent villages. Being consumer farmers, adverse effect on rural traditional markets, dropout of farmers' children, providing most of the labor force for industrial zone from the city, reduction of children's interest in agriculture, reduction in young workers in the agricultural sector and the use of certain groups of farmers are variables of the second factor.

Eigenvalue of the environmental factor is equal to 3.66 that explained 14.86 percent of the total variance and ranked as the second negative effect of Khayyam Industrial Park on the agricultural sector in adjacent villages. Variables such as air pollution of the village, degradation of pastures, noise pollution caused by the industrial units, agriculture water pollution and groundwater contamination around the town are included in the factor.

Eigenvalue of the agriculture factor is equal to 3.37 that explained 12.89 percent of the total variance and ranked as the third negative effect of Khayyam Industrial Park on the agricultural sector in adjacent villages. Variables such as reduced investment in agriculture, reduced attention to agriculture and problems and transport of agriculture water to industry sector are included in the factor.

Eigenvalue of the economic factor is equal to 2.98 that explained 11.60 percent of the total variance and ranked as the fourth negative effect of Khayyam Industrial Park on the agricultural sector in adjacent villages. Variables such as transfer of farmers' surplus to be invested in cities, increasing the income of a group of farmers and an unreal increase in the price of non-residential land of farmers are included in the factor.

Eigenvalue of the physical factor is equal to 2.06 that explained 9.1 percent of the total variance and ranked as the fifth negative effect of Khayyam Industrial Park on the agricultural sector in adjacent villages. Variables such as relative development of villages near the settlements than others and polarization of the region are included in the factor.

Considering the amounts indicated in Table 7, it could be noted that from the total impact of Khayyam Industrial Park on the agricultural sector, the economic impact on the agricultural sector was positive at a rate of 9.49 percent and its negative impact on the agricultural sector was 8.31 percent. Due to the higher positive economic impact of Khayyam Industrial Park on the agricultural sector than negative, it can be stated that the construction of Khayyam industrial park strengthens the

positive effects of the agricultural regions. The main hypothesis is confirmed based on that, Khayyam industrial park has strengthened agricultural economy of Neyshabur.

Considering the amounts indicated in Table 7, it could be noted that from the total impact of Khayyam Industrial Park on the agricultural sector, the social impact on the agricultural sector was positive at a rate of 20.57 percent and its negative impact on the agricultural sector was 17.43 percent. Due to the higher positive social impact of Khayyam Industrial Park on the agricultural sector than negative, it can be stated that the construction of Khayyam industrial park strengthens the agricultural sector. The first hypothesis is confirmed based on that, Khayyam industrial park has strengthened agricultural social effects.

Also the amounts indicated in the table shows that Khayyam Industrial Park affected on the agricultural sector in term of agriculture, and the impact of the factor on the agricultural sector was 4.75 percent and its negative impact was 6.52 percent. Due to the higher negative impact than positive, it can be stated that the construction of Khayyam industrial park strengthens the negative effects on the agricultural sector. The second hypothesis is not confirmed based on that, Khayyam industrial park has strengthened positive agricultural effects.

Table 4. Ranking the negative effects of Khayyam Industrial Township From the perspective of farmers.

Ran k	Standard deviation	Averag e	Variables (negative effects)
6	0.743	4.26	Transfer of surplus rural incomes and investments in cities
6			
3	0.877	4.48	Sales and land use change
14	1.182	3.26	Non-real price increase in residential land
5	1.1	4.31	Increase in income group of rural people
9	1.252	3.86	Fell investment in agriculture
4	0.831	4.4	Groundwater contamination of villages around the towns
1	0.864	4.61	Reduced attention to agriculture and reduced attention to the problems in this section
20	1.019	3.03	Agricultural water pollution
18	1.098	3.15	Sound pollution caused by the industrial units
15	0.867	3.26	Rangeland degradation
10	1.046	3.79	polarization of area
13	0.871	3.42	use of particular group of rural people
11	0.929	3.76	Loss of young workers in the agricultural sector
8	0.797	4.05	Decreased interest in rural children to agricultural activities
21	0.881	2.86	Air pollution in the village
12	0.909	3.47	Transfer of agricultural water to the industrial sector
2	0.87	4.59	Providing labor industrial town of the city
19	0.945	3.1	The relative development of villages near the industrial town
17	0.945	3.16	Dropping the children of some families
7	1.009	4.16	Consumption of rural households
16	0.741	3.2	Towns adverse effect on traditional markets

Source: Research findings.

Table 5. Factors extracted from factor analysis of the negative effects of Khayyam industrial town.

Factors	Eigenval ues	Percentage special value	of The cumulative variance	frequency percentage of	Percent of total Factors
The first factor (social)	5.89	24.33	24.33		33.42
The second factor (environmental)	3.66	14.86	39.19		20.41
The third factor (Agriculture)	3.37	12.89	52.08		17.71
The fourth factor (economic)	2.98	11.6	63.68		15.93
fifth factor (physical)	2.06	9.1	72.78		12.5
Total		72.78			100
KMO =695/0 Sig = 0/000 Bartlett's Test = 7/3445					

Source: Research findings.

Table 6. Factors extracted for negative effects of Khayyam town with their operating times.

Load town	factor	Effects	Variables
0.706		Social (24.33)	Consumption of rural households
0.773			Towns adverse effect on traditional markets
0.726			Dropping the children of some families
0.767			Providing labor industrial town of the city
0.721			Decreased interest in rural children to agricultural activities
0.729			Loss of young workers in the agricultural sector
0.718		Environmental (14.86)	use of particular group of rural people
0.703			Air pollution in the village
0.823			Rangeland degradation
0.626			Sound pollution caused by the industrial units
0.687			Agricultural water pollution
0.717			Groundwater contamination of villages around the towns
0.786		Agriculture (12.89)	Sales and land use change
0.811			Fell investment in agriculture
0.727			Reduced attention to agriculture and reduced attention to the problems in this section
0.692		Economic (11.6)	Transfer of agricultural water to the industrial sector
0.742			Transfer of surplus rural incomes and investments in cities
0.708			Increase in income group of rural people
0.693		Physical (9.09)	Non-real price increase in residential land
0.763			The relative development of villages near the industrial town
0.705			polarization of area

Source: Research findings.

Table 7. Positive and negative effects of Khayyam industrial town on the agricultural sector Khayyam industrial town along with the percentage share of each factor.

Factors	Percentage of special value (positive effects)	Percentage of special value (negative effects)	Percent of total factor (positive effects)	Percent of total factor (negative effects)
The first factor (social)	28.7	24.33	20.57	17.43
The second factor (physical)	4.55	14.86	3.26	10.65
The third factor (environmental)	13.61	12.89	9.75	9.23
The fourth factor (economic)	13.25	11.6	9.49	8.31
The fifth factor (Agriculture)	6.63	9.1	4.75	6.52
Total	139.52		47.82	52.14

Source: Research findings.

Discussion and conclusion

The results indicated that from the total impact of Khayyam Industrial Park on the agricultural sector in adjacent villages, the physical impact on the agricultural sector was positive at a rate of 3.26 percent and its negative impact on the agricultural sector was 10.56 percent. Due to the higher negative physical impact of Khayyam Industrial Park on the agricultural sector than positive, it can be stated that the construction of Khayyam industrial park does not strengthen the positive physical effects of the region. The third hypothesis is not confirmed based on that, Khayyam industrial park has strengthened positive physical effects of the region.

The results indicated that from the total impact of Khayyam Industrial Park on the agricultural sector in adjacent villages, the environmental impact on the agricultural sector was positive at a rate of 9.75 percent and its negative impact on the agricultural sector was 9.23 percent in which the positive impact is higher than positive, it can be stated that the construction of Khayyam industrial park strengthen the positive environmental effects of the region. The fourth hypothesis is confirmed

based on that, Khayyam industrial park has strengthened positive environmental effects of the region.

According to research findings, the following suggestions are offered:

It is suggested to have agriculture oriented industrialization strategy for the region. The units of production and transform the surrounding villages dependent on agricultural production and animal husbandry should be created and developed to be supported by agriculture, livestock and horticultural activities, especially complementary garden products industry due to several gardens in the area should be strengthen and developed. In general, the link between the two sectors seems necessary for the sustainable development of both.

Due to higher negative physical effect of Khayyam industrial town on the region, it is recommended to run special policies to prevent relative development of villages near the settlements and not to have polarized region. Due to higher agricultural effects caused by the establishment of Khayyam industrial zone in the region, it is recommended to perform policies to prevent the sale and land use changes, increase investment in the agricultural sector, increase attention to agriculture and related problems occur in the region.

Providing rural financial participation infrastructure in the development of industrial zones and activities can prevent transfer of savings from rural to urban areas. Therefore, it is to provide villagers' investment in this section or at least to attract rural savings. In this regard, Industries and Mines Organization or involved organizations can be effective in encouraging villagers to invest in rural industries with more interaction with the agricultural sector through providing credits for businesses that welcome rural investment.

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