

# Economic Development Programming Approach in Aras Free Trade-Industrial Zone Based on AHP Hierarchical Analysis Model

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## Abstract

In this article, Aras Free Trade-Industrial Zone's economic development and its impacts on the region are studied based on AHP model.

This article is done based on qualitative models of content analysis, AHP model, and binary comparisons, to categorize the indices.

Sample population includes managers and employees of the zone. Finally, if we relate the peripheral variants to main variants directly, it is resulted that the most important developments are made based on peripheral variants such as government loans, monetary institute's funds, and introduction of tourism opportunities in free zones, rather than the least important ones that are peripheral variants such as economic development and office bureaucracy.

**Keywords:** Free Trade-Industrial Zones, Economic Development, Trade Promotion, Foreign and Local Investor Attraction, Tourism Development, Job Creation.

## Introduction:

It is believed that free zones are technology and Investment into the country. Of domestic production of new knowledge and its integration in the development and in line with the global economy. The rapid growth of free zones has led developing countries to establish such areas in their own country. Such as free trade zones, Singapore, South Korea, India, China and Dubai Free Zones cited. (Esfandiari et al,2008). One of the important levers of economic free zones to attract foreign investment to encourage the development of exports are gaining revenue. (Khalil,2010).

## Statement of the problem

According to the national economy in light of global competition, creating free zones as a contributing factor to compensate for lost opportunities in the areas of export promotion, healthy and productive job creation, promotion of the economic position of the country and benefit from the competitive economy emphasis is economic policy. (Esfandiari et al,2008). Free zones as a means to encourage economic development aimed at export industries, restructuring existing discriminatory world trade, international trade expansion; helping developing countries create jobs and reduce unemployment are considered. In our country in order to achieve the aims and objectives of economic, social and cultural free trade zones - industrial and economic strategy to encourage exports, production, export and re-export of these areas are of utmost priority. (Rahnavard,2010)

## The purpose and need for research

This study evaluated the effect of indicators on the performance of Juniper's commercial-industrial free zone and the impact of each index on the region's economic development has set. The main purpose of research, planning approach to economic development in the free trade zone - industrial schools was based on the analysis of AHP hierarchy.

## Research questions

This study sought to answer the 5 questions in the context of your goals are;

1. Domestic and foreign investment in Aras Free Zone what impact the economic development of the region?
2. The development of trade in the free trade zone - Industrial Aras what impact the economic development of the region?
3. Tourism (Tourism) on free trade zone - Industrial what impact the economic development of the region?
4. Create employment in the free trade zone - Industrial Aras what impact the economic development of the region?
5. Free Zone industrial trade schools has been successful in achieving the goals set?

## Theoretical Foundations of Free Zones

Free Zone limits the location is that is free entry and of goods and since these areas are usually located in the

port free port in their own name in this in therpretation free zone in the refers to that free trad is possible.(Cludem,1987).

According to the United Nations Development Organization (UNIDO) Free Zone as driving in order to encourage export industries considered. (Kamran,20000).

Free zones "in the export processing zone known as" special industrial zone outside the customs border, where its products are export oriented, it is said. Special economic zones to attract foreign investment, increase exports and attract advanced technology, broadly based on a local and regional development programs adopted. (Desai 2009). Free trade zones, industrial initiative established to promote competition in global markets has been instrumental in the founding countries can benefit from the advantages of such areas. (deputy research by the Parliament,1996). Free zones, the first socialist countries, which were closed economy, consider the fact to in founders of the Free Zone, to test the theory of a free market economy in some parts of the country that they could be seen in the context of development. Iran has proposed the establishment of free trade areas in the state's economic theorists to be a refuge for the economy state (Latifi et al.,2004). The idea of Export Processing Zones can be one of the most important strategies is that over the past three decades, developing countries are faced with less developed And countries by success that gave several development countries such as South Korea, Hong Kong and Singapore. free zones is due to the unchecked spread of these areas have to follow. Domestic and international factors and conditions without ruling on West consider model (Sami Ali Abadi,2010).

The concept of development based on the concept of change in the social, economic, political, cultural and public attitude change was considered. Economic development: the changes and structural changes in the economy in the context of political and social values of society. Economic development with ongoing growth in gross domestic product and structural changes in terms of major economic sector in national production is realized (the basic issues of urban and regional planning master,2009). export processing zones trade area and agreements in connection used in developing countries to help create wealth and initiatives (attract) outside the capital are Other regional (Hendrawan,2012). Indicators of Economic Development

Such as economic development or level of development can be outlined this

- A. Per capita income of a country's share of national income (GDP) to its population, per capita income is achieved. It is simple and can be assessed in different countries, usually developing countries compared with the level of per capita income.
- B. Purchasing power parity (PPP) 3: In this method, the production of various commodities in each country, in the world prices of commodities multiplied and after necessary adjustments, GDP and per capita income is calculated.
- C. Stable income index (GNA, SSI) 4: In this method, the environmental costs caused during production and economic growth in the national accounts approved (either as compensation or as to improve the resources and the environment) and then comes the development.(motavaseli,2001).

## **Regional Development**

Planning means how to a region that may contain several large cities in a region or a province or state, planning to on Credit economic freedom FEZS as one of the most important institutional innovations in the economy. (Desai,2009). In today's world of development areas in Attractive to investors foreign is considered vital for the economic growth of developing countries, it can be said: if one wishes and objectives, expected welfare effects of a customs union and related forecasts is essential strengths, which cause trade and non-trade failure. (Comercio Exterior, 2008). developing countries are trying to adjust the existing tariff concessions on tax breaks facilitate administrative procedures to support economic activity in the area of venture them. Free areas in less developed countries or developing an export industry to attract foreign capital and technology and job creation, and in developed countries, ways to reduce production costs to increase competitiveness in the global market were considered. Export Processing Zones of thinking this is the golden period (High Council of Free Trade Zones - industrial Iran,2001).

Factors in economic development and the role of free zones

In a city of special economic zones to assess the economic impact on the local economy have been investigated. Compare before and after the creation of special economic zones have shown that increasing foreign direct investment by foreign companies and investments in the region and economic development of these areas is made. (Abadi, 2005).

Countries with large investments in special economic zones and to achieve economies of scale and increased production, higher wages and other costs associated with the production of these areas are established. (Abraham and Koning, et al 2010). Economic Impact of Special Economic Zones

The role of free zones, as an economic tool to communicate better with the economy and regional trade agreements and world trade. The government plans commonly used in developing countries to produce and increase wealth, international trade and investment system used (Hendrawan,2012). Attract foreign Investments:

The main objective of developing countries established free trade zones to attract foreign investment is the, that's why one of the common names of these areas is the area of investment. Investors, managers thereby have a key role in the supply chain production. (Dussel, 2003). Preparation attractive environment for investment, including proper service and land grant Attractive for investment industrial capital, regulatory services to the control and regulation proper implementation of the free area as well as innovative communication and its development plans. Tax-free zone is considered as a tool to attract investment. (Culdem,1973).

Employment: Construction of some of the free zones in the form of indirect export of manpower to be out. Free areas of foreign firms, local workers virgin services workers provide services in exchange for the wages and new training of elderly. (Grubbester,2007).

In order to create a free trade zone, the fundamental issues raised Are superior the commercial reconnect benefits and reconnection wide markets, in many cases permits issued to allow the forces of semi-skilled, skilled and professional employment for a long time to be active in the free zone ( Brenner, 2003: 358). The employment effects of a free trade area of social security and economic development free zone industrial trade. (Bele', 1999: 120).

Export Development: One way to diversify and increase exports, especially exports of industrial free zones. This has led to the Asian Productivity Organization in these areas "Export Processing Zones" are named. These changes affect the social and economic situations of the regions during this tool. Free economic zone (FEZ) as a tool to create the entry and exit of goods is considered. tax-free zone as a way to compensate for the lack of free zones and therefore offered as compensation. (Gorica and Slovenia, 2010)

Tourism: tourism as one of the world's most profitable industry could play an important role in ensuring economic growth (Arbabian et al,2013). Tourism industry is in fact a form of indirect foreign investment in the countries considered. The main function of the industry's foreign currency income, redistribution of income, sales of goods and services needed by tourists, creating jobs and economic prosperity. The world's economy is very diverse and heterogeneous, however, including economic development goals that Following (arbabibin,2013).

### **Prerequisites for the success of the free zones**

The most important of these are as follows: peace and peaceful enjoyment of low tension in international relations as well as international obligations, enjoying political stability and focus on providing the political situation, social capital in the free zone that is absorbent, having The consensus on the goal of developing free zones and full support of the government, having the correct location, accept the aim of economic liberalization and respect for private property and the need to reduce government intervention in economic affairs free zones, enjoying Terms without ambiguity concerning the protection of foreign investors and domestic.(The High Council of Free Trade Zones-industrial,2014).

### **History Studies**

Mr. Zhang, Wang and colleagues research policy program under the Free Zone in Shanghai has achieved the following results:

Shanghai's free trade zones to achieve profitability and to attract business, attract investment in free trade zones in China by China's coastal areas.

In this theory, a port can become a center of the transition to a complex center. The main functions and key tasks is a fourth generation port systems to facilitate flexible working conditions, facilitate customs procedures and implementation of effective information systems. The fourth generation includes two USB ports operational applications has expanded. All aspects, including manufacturing, logistics, port, transport services, transport services, business services and social services are integrated. Policies and regulations to support the FTZ. Ports services also offer integrated logistics.(Wang,at el,2012)

Mr. Thomas Flowers In another study under the Special Economic Zones in Africa achieved the following results:

Incentives to attract foreign investment are powerful and effective tool. Public employment and export growth and The results of the incentives granted. The aim of this study was to gain a better understanding of the role of the SPZ in developing countries, in order to better equip policymakers in making decisions affecting the planning and implementation of the EPZ.(Farlor,2014).

Mr. Jin Wang in a study entitled Economic Impact of particular regions in China achieved the following results:

Capital and advanced technology are usually favorable for development. Special economic zones to attract foreign investment, increase exports and attract advanced technology widely based on local and regional development programs are adopted. Discussed its long-term effect by providing some of the first effects of special economic zones to measure the growth of regional and local investment can help.(Wang,2012)

Ms. Fatemeh Jamal Puor management as analysis of the economic impact of free zones on rural

development (the case of the industrial port of Anzali free zone trade) has achieved these results: The free trade zones are peripheral aspects of progress in other areas. The creation of free trade zones is not something separate from the national economy. But for the development of regional and major part of the program's socio-economic development in deprived areas adjacent The other the development of free zones, long-term economic development, as well as related packaging creates new activities, especially in towns and villages the surrounding area is released. Creating new employment and income multiplier effect can be stagnant economy deprived areas will lead to new activity and raise the level of economic activity in these areas. In the present study the effects of free zones in the development of the surrounding villages have been investigated. Depending on the type of economic regime in the country, there are different strategies for regional development strategies can be divided into three groups in terms of scientific developments and the need for development that include:

1. strategy based on pure economic logic
2. strategy, logic-based social and political
3. logic-based approach to development and civil rights.(Jmalpour,2012).

**Statistical Society:** The population studied consisted of managers and experts in free zones, industrial trade. Library and field data collected in two ways. Survey method using questionnaires and interviews have been collected. Statistics about the use of statistics available High Council of Free Zones commercial-industrial country has been prepared.

The study's approach to economic development planning in the free trade zone - industrial schools based on AHP hierarchy analysis to identify performance indicators and factors involved in free trade zones - Industrial and using AHP to evaluate a little bit deals.

Qualitative study samples or participants are selected purposively. Qualitative research is a way to achieve mental content and it can not be done rigorous methods and procedures which are very different. Analytical studies to determine the validity and reliability of the questionnaire based on the literature and experts measured. In order to ensure reasonable judgment in AHP compatibility rate is considered as an indicator that shows how rational judgment has been made. (Mo'meni,2008).

Research methods of content analysis methodology and analytical tools that are useful in a wide range of applications for various forms of communications (text, recorded speech, structured interviews and any other message) is used.

Analytical Hierarchy Process (AHP) to help decision makers to priority based on objectives, knowledge and experience are set, so that their feelings, and fully consider the judgment. (Momeni,2007).

Algorithm AHP: AHP model at this stage of the analysis and make it easier fragmenting into several parts. After it became clear that the index options and index paired comparisons do. Then we follow the following algorithm:

1. normalize paired comparisons
2. To obtain a normalized pairwise comparison matrix arithmetic average of each row (also called relative weights).
3. Multiply relative weight in the index arithmetic mean options
4. Ranking the options. (Ghodsipuor,1998).

### Data analysis

Introduction: as part analyze data to process scientific method of study and research is considered one of the main origins by which all research activities to achieve a result, control their conduct. In other words, in this part of the researcher to answer the research questions using a variety of methods analyze it. This study uses content analysis to evaluate the indicators continue to point to be achieved. It also uses a paired comparison and ranking of AHP to indicators discussed. This study sought to identify the effect of five factors: internal and external investment, business development, tourism development, employment, evaluation of the success of free-trade areas Industrial Aras. Sub-agents identified using content analysis for each variable is as follows:

attract domestic and foreign investment:

Move in line with the master plan and vision, economic development, infrastructure, the introduction of investment opportunities, financial institutions and government facilities, facilities available logistical, security and guarantee of investments, money and inflation rates.

Business Development:

Move in line with the master plan and vision, economic development, infrastructure, the creation of a sustainable industry, the introduction of business opportunities, logistics facilities, the production and export conversion.

development of Tourism:

Move in line with the master plan and vision, good mental picture of the Iranian foreign tourists, the introduction of free trade zones in Iran industrial, cultural perspectives.

jobs move in line with the master plan and vision, economic development opportunities in employment, employment by a sustainable industry, employment is a function of investment, trade and tourism development.

success of the Free Trade- Industrial Zones

Performance management at the macro level, the devolution organizations and government agencies, administrative bureaucracy, enforcement of laws and regulations, political boycott.

Experts judge the incompatibility rate: One of the advantages of the analytic hierarchy process control system compatibility. At this point we can calculate the amount of system incompatibility diagram index incompatibility is the incompatibility II is a paired comparison matrix. Where the largest amount of special matrix. For a paired comparison matrix with N and the rest of the eigenvalues of matrix is zero. The following table compares the test parameters considered in this study was conducted using a computer.

**Random incompatibility rate index**

N	1	2	3	4	5	6	7	8	9	10	11
IRI	0	0	0/58	0/90	1/12	1/24	1/24	1/32	1/41	1/45	1/51

The following paired comparisons between the primary and secondary variables according to the main objectives is done. These comparisons using Expert Choice software were analyzed and weights vector derived variables. Rate adjustment obtained is extracted from the tables below:

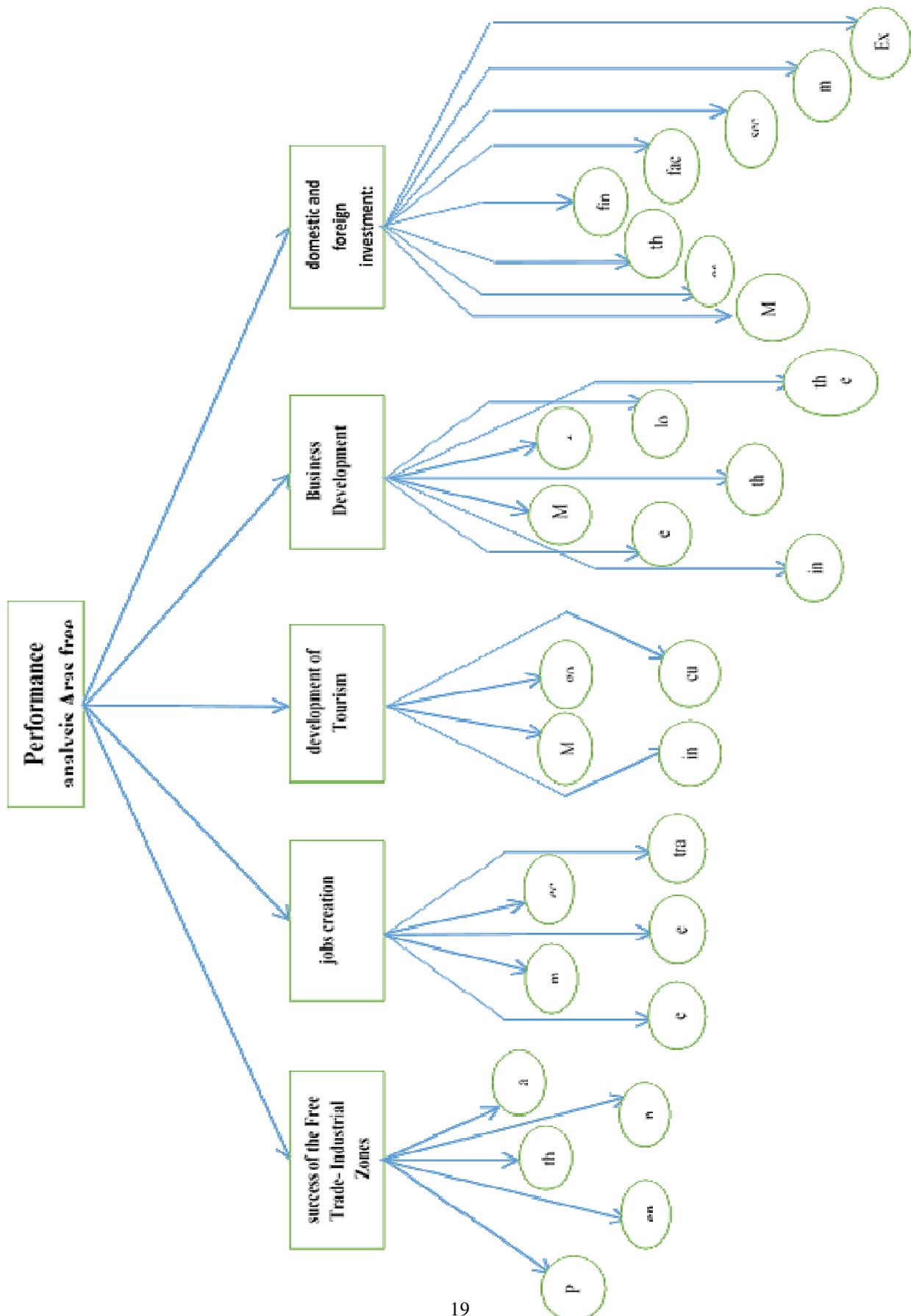
The main variables	Investment	Business Development	Tourism Development	Tourism Development	The success of the free zones	Variable
<b>0.038</b>	<b>0.078</b>	<b>0.094</b>	<b>0.049</b>	<b>0.062</b>	<b>0.027</b>	<b>The incompatibility rate</b>

Now according to the results, the importance of each variable to measure the performance of Aras Free Zone. Accordingly, as is specified in Table 4-3 of the utmost importance and contribution to the economic development of Aras Free Zone between domestic and foreign investment is the main variable. Priority issue for the following variables: domestic and foreign investment, employment, tourism development, business development, the success of free trade-industrial areas.

Operating facilities granted by government, financial institutions and infrastructure of the most important roles. Secondary variables variable prioritize domestic and foreign investment after the two factors mentioned above are as follows: economic development, logistical facilities available, security and guarantee of investments move in line with the master plan and vision, introducing the investment opportunities investment and high rates of money and inflation.

Free Trade- Industrial Zones least variable success also share in the economic development of the region. In fact, if secondary variables without intermediate variables to target our communication is of utmost importance in the economic development of commercial-industrial area and government facilities Aras derivative of monetary institutions and the existing tourism opportunities least important Brvrkrasy variables of economic development administration have.

**Problem using AHP method**



## CONCLUSIONS

The article on "approach to economic development planning in the free trade zone - industrial schools based on AHP in attracting domestic and foreign investment, trade promotion, tourism development, job creation and the success of free trade-industrial zones. In achieving the goals of an achieved the following results: internal and external investment variables had the highest share in regional economic development and the development of tourism and employment variables are effective. Variable as well as business development and success of the Free Trade- Industrial Zones lowest share in the economic development of the area allocated.

Internal and external variables in order of priority sub-investment: government facilities and monetary institutions, existing infrastructure investment and the introduction of investment opportunities and high rates of money and inflation of barriers to attract investors in this region, as well as high risk investment in the free zones of the barriers to attract investors to this region. Back to the master plan and vision for the lack of investors is drawn to the area, which have been identified.

One of the goals of the free zones of production and export of goods outside of free zones, followed by joining the world trade. In this study, it was concluded that free zones, especially Aras Free Zone achieved much success in it. Available affecting the economic development of countries. Another potential in tourism and tourist attraction is Aras Free Zone. According to analysts, tourism is one of the most attractive for investment and job creation and thus economic development. In this study, the factors affecting employment in Aras Free Zone and its impact on the functioning of these indicators is discussed. The employment index derivative highest contribution to the economic development of the region's economic development. The creation of a sustainable industry, and the Aras Free Zone in the area of job creation compared to before the creation and formation of Aras Free Zone is a good run in the index of employment. But had not achieved the objectives of this factor. In the area of job creation is now ready to fully absorb the labor market are not.

The reasons behind the lack of a comprehensive plan and forecast for employment: the lack of a sustainable industry and thereby create sustainable employment. The success of Aras Free Zone can be said that in general free zones in achieving the targets set by the subject of free zones have been successful? In response, we can say that free trade-industrial areas of relative success in achieving your goals are.

### Suggestions:

in the field of production, investment and tourism, creating an attractive investment environment, business opportunities and trade, lending and concessions to investors, legal protection of large investors, raise the standard of goods produced in Aras Free Zone entry and competition in world markets, effective advertising to promote tourism opportunities in Aras Free Zone to domestic and foreign tourists, creation of tourist facilities for the welfare and tourism, to attract domestic and foreign investors to invest in the region. especially the manufacturing sector and other designated area, to be sustainable employment and consequently the welfare and economic development of the region.

The success of the free zones, free zones established stable strategies and programs can be seen free trade industrial zones Aras Free Zone was successful. As well as the appointment of qualified and experienced managers who have sufficient knowledge and expertise and to grant full authority to make decisions and practice and consistency in the application of Aras Free Zone, unity of decision-making in Aras Free Zone, support and assistance organizations. In order to improve performance and accelerate the achievement of free trade-industrial regions of Iran, especially the Aras Free Zone.

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