

## **A Strategy of Achieving Spatial Justice in Halabja District**

**By**

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### **Abstract**

The present paper is divided into two sections: Section One shows the economic potential (agriculture, industry, tourism, and commerce), and Section Two presents the correlation coefficient of the relationship between the strategy and achieving spatial justice in the Halabja district and its sub-districts, and how to achieve the development strategy that helps in the development of the capabilities and exploiting the resources available in this district. It also shows how to equally distribute the resources to the center of the district and its sub-districts in order to achieve welfare and reduce migration from the sub-districts to the center. (50) questionnaires have been distributed to a sample of officials and administrators who are employees of the office of Halabja governorate and Halabja municipality. The statistical package Statistical Package for Social Science (SPSS v.22) is used to find the standard multiple regression tool, and when applying this tool to the questionnaire it is found that there is an effect of the strategy in achieving spatial justice in the district of Halabja. Accordingly, it is concluded that taking into account the dimensions of the strategy leads to the achievement of spatial justice in the governorate.

**key words:** Development, economic potential, strategy, development strategy, spatial development, social justice

### **Introduction**

The spatial development strategy in Iraq for the period (2021-2022) is derived from the National Development Plan (2018-2022) and it works to expand the dimensions of development for border cities and desert lands in order to invest and reconstruct them to reduce pressure on the centers of large cities. This, in turn, can help to achieve development and social justice that serve citizens in all districts, sub-districts, and rural areas, in all governorates, and throughout Iraq (1) (2) (3).

Spatial development is achieved by modern methods, through spatial digital models and determining the planning factors for spatial development, and thus achieving development

goals faster and with high accuracy. Also, it enables the best utilization of development resources (4).

Development is an important aspect when we want to develop society in terms of economic and social terms. Sustainability planning is a factor that contributes to development. These plans must be on an ongoing basis. To do this, we must understand the planning work in its continuous form and not as a ready-made map through comprehensive strategic planning, which helps in achieving growth and be a major factor for the development of the governorate and sub-districts in particular (5)(6)(7).

The spatial structure consists of many factors, which are economic, represented by the natural resources and capabilities available in the spatial domain and human factors, including population, education, and the size of the field, which is the area. (8)(10)(10).

The phenomenon of lack of moderation prevails in the developmental level from the economic and social aspect, due to the concentration of activities in a particular city and its decline in other governorates. Therefore, the developmental aspect leads to reducing the difference for this phenomenon (11) (12) (13).

Sustainable development seeks to achieve the welfare of individuals in society by improving its culture, with the participation of society as a whole, which is the best in developing it in terms of economic, urban and living aspects. Thus, this can lead to achieving a better life in its various aspects. There are stages of development from World War II to the present time: The first stage is the use of industry as a tool to improve the national income, and the second is the use of the social aspect by addressing the application of justice and community participation, the third focuses on the concept of taking care of society by upgrading the simple population and not just paying attention to economic development, the fourth is related to the environmental aspect and its importance in determining aspects of life for living beings on earth and creating solutions to their serious problems(10)(11)(12)(15)(18).

In the last decade, the provincial councils, ministries, and Iraqi departments went through an experiment, which is regional development that includes allocating amounts from the annual budget to the presidency of the provincial councils to help them carry out their tasks in order to serve the residents of these governorates in an optimal manner (14)(19).

The research problem is summarized in the existence of a discrepancy between the center of the district of Halabja and its sub-districts in terms of economic potentials (agriculture, industry, tourism, and commerce) and social services as well as the environmental factor, and the lack of moderation in the distribution and exploitation of capabilities and the investment of natural resources in them.

The hypothesis of the research shows that the development strategy of Halabja district leads to the achievement of spatial development, and it must provide good services to the residents of the districts in a way that ensures an equal distribution of potentials and resources.

The research aims to clarify whether the development strategy affects the achievement of spatial justice, and how to achieve the development strategy that helps in developing

capabilities and exploiting the resources available in the district of Halabja and distributing them equally to the center sub-districts, to achieve prosperity and reduce migration from sub-districts to the center.

## Section One

### 1. Agricultural Activities

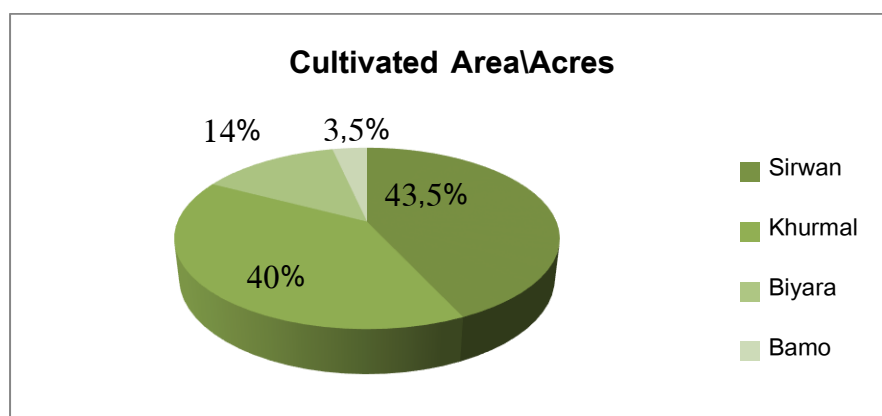
Table (1-1). The cultivated area in acres of various categories and their percentage to the total cultivated area in the administrative units of Halabja district for the year 2019:

	<b>Sirwan and Bamo</b>	<b>%</b>	<b>Khurm al</b>	<b>%</b>	<b>Biyar a</b>	<b>%</b>	<b>Total</b>	<b>%</b>
<b>wheat and barley</b>	39510	46.3	32688	44.0	8441	32.0	80639	43.4
<b>(Winter vegetable)</b>	1854	2.2	772	1.0	264	1.0	2890	1.6
<b>(Summer vegetable)</b>	10158	11.9	1514	2.0	810	3.1	12482	6.7
<b>fruit orchards</b>	6058	7.1	3029	4.1	6892	26.1	15979	8.6
<b>other crops</b>	27825	32.6	36231	48.8	9968	37.8	74024	39.8
<b>Total</b>	85405	100	74234	100.0	26375	100.0	186014	100.0
<b>from the corps of the district %</b>	46	-	40	-	14	-	100	-

The table is by the researcher based on:

Halabja Governorate Office - Statistics Department - Data of the Directorate of Agriculture and Irrigation in Halabja District, 2019-2020, unpublished information.

Figure (1-1) The cultivated area in acres of various varieties in the administrative units of Halabja district:



The researcher's work based on Table (2-12)

Accordingly, the distribution of cultivated areas for various agricultural crops varies among the administrative units of the district as follows:

- The cultivated area with wheat and barley in the two areas (Sirwan and Bamo) is (39510) acres, or (46.3%), followed by Khurmali and Biyara with (32688 and 8441) acres (44% and 32%), respectively. With regard to other crops, they are distributed in the following manner over the administrative units, as they reached (36,231) acres in Khurmali district, with a percentage of (48.8%) of its cultivated area and ranked first, and then in the two districts (Sirwan and Bamo) with 27,825 acres, or 32.6% of the total cultivated area, then Biara district comes in the last rank with an area of (9968) acres and a percentage of (37.8%) of its total cultivated area.

- However, we find that the cultivated area with fruit trees at the district level has reached (6892) acres, with a percentage of (26.1%) for Bayara district out of the total cultivated area, followed by the two districts (Sirwan + Bamo) with an area of (6058) acres, at a rate of (7.1%) of the total area. Finally, Khurmali district, occupied an area of (3029) acres, at a rate of (4.1%) of its total cultivated area.

- While the cultivated area with summer vegetables in the two areas (Sirwan + Bamo) amounted to (10158) acres, at a rate of (11.9%) of the total cultivated area, followed by the areas of Khurmali and Bayara with (1514) and (810) acres, respectively, and it constituted (2.0%) and (3.1%), respectively, of their total cultivated area.

- Finally, the cultivated area with winter vegetables in the two areas (Sirwan + Bamo) amounted to (1854) acres, at a rate of (2.2%) of the total cultivated area, followed by the areas of Khurmali and Biara with (772) and (264) acres, respectively, and both constituted a percentage of (1.0%) of their total cultivated area. The reason for the lack of areas planted with winter vegetables is due to the inappropriate climate and mountainous nature that characterizes this type of crops.

## 2. Industrial Activities

Table (1-2). The industrial establishments and their employees in the district of Halabja, according to the administrative units for the period (2017-2021):

Administrative units		large institutions	medium institutions	small institutions	number of staff
district center		1	4	1	96
sub-districts	Sirwan	1	-	-	35
	Khurmali	-	-	-	-
	Biyara	-	-	-	-
	Bemo	-	-	-	-
total		2	3	2	131

The table is by the researcher's work based on:

- Data of the Statistics Department in the Office of Halabja Governorate for the year 2019-2020.

- Halabja Statistics Department, Industrial Sector Division, unpublished data for the period (2017-2020).

Each of the three sub-industries includes a group of establishments and shops so that all branches of industries such as baking, cleaning field pistachios, sweets, pastries, grinding grains and ice are included within the food industries. The construction industries within this study include cement brick factories, stone cutting, polishing and kashi factories, and mosaics. Finally, the various industries include all kinds of repair shops, blacksmithing and trade laboratories, a laboratory for printing films, gold and aluminum crafts, and all handicrafts, knitting and weaving clothes and shoes.

### 3. Tourism Potentials in Halabja District

Table (1-3) The tourism potential in Halabja district for the year 2019

Location	Archaeological tourism	Religious tourism	Recreational tourism
<b>Halabja District Center</b>	28	4	7
<b>Sirwan District</b>	41	1	6
<b>Khormal District</b>	42	1	6
<b>Biara district</b>	12	4	9
<b>Bemo .district</b>	1	-	1
<b>Total</b>	124	10	29

Source: Office of Halabja Governorate, Department of Statistics and Informatics, based on data from the Directorate of Antiquities of Halabja 2012.

Tourism is a basic and complementary pillar to the economy of countries after agriculture and industry, sometimes even before them. There are several diverse tourist possibilities available in the district of Halabja. The most important tourism potentials in the study area can be summarized as follows:

#### 3.1 Religious Tourism

There is a group of religious shrines spread in different parts of the district of Halabja. The most important shrines in the district of Halabja that can be visited are: the shrine of Bir Muhammad in the city of Halabja, the shrine of the companion Abu Ubaidah al-Ansari in the village of Ababili, the Khormal mosque, the shrines of the sheikhs, the Naqshbandi way in the district Biara, and the most prominent shrines for believers from the Kaka'i group in the study area, which is the shrine (Sultan Ishaq) located next to the Iraqi-Iranian border near the village of Sheikhan in the district of Sirwan.

### 3.2 Archaeological Tourism

The district of Halabja includes archaeological and historical sites, but most of these sites need excavation, in addition to the fact that these sites do not have a road to reach them, but need to travel long and rugged distances at the same time on foot. Among the most important archaeological sites that can be visited are: Khormal Castle, and Bakrawa Hill, the Caves of Wadi Zeh Lam and Kawran Cave, in addition to the presence of a monument and a mass grave in the center of Halabja city. It means that the district is rich in many heritage and archaeological monuments, if invested, it will be an important economic resource.

### 3.3 Recreation Tourism

The district of Halabja includes recreational possibilities that help encourage and establish tourism investments for entertainment and hiking, due to its nature that contains rivers, streams and waterfalls, such as the Zalam waterfall at the village of Ahmed Awa in the Khormal district and the Sarwa Zan waterfall in the village of Sazan, and a summer resort (Wadi Biara, Ain Aweser) affiliated For Bayara district, Al-Ayoun, and many natural springs, including the Karawaka spring in the center of Khormal district, which is suitable for recovery from skin diseases.

## Section Two

### 2.1 Frequency and Rates of the Questions of the Economic Potential Dimension of the Simple Random Sample

The simple form includes four dimensions; each one contains many questions. This form is distributed to the population sample to express their views on the subject of the study through their answers to the dimensions of the questionnaire to improve the reality of services in the center and its sub-divisions.

Table (2-1) shows the frequency and recurrence rates that are expected to show the economic potential of the center of and its sub-districts:

Questions	Economic potential	Frequency	percentage
2. What are the capabilities of your area?	agricultural	134	53.6%
	industrial	4	1.6%
	tourism	112	44.8%
4. What do you think is best for improving the developmental reality in your area?	the state	110	44%
	private sector	95	38%
	foreign investment	45	18%
5. What do you think are the areas in which investments are successful in your area?	tourism	110	44%
	agricultural	78	31.2%
	industrial	8	3.2%
	commercial	29	11.6%
	agricultural industrial	25	10%

The table above shows that the potentials enjoyed by the center and its sub-districts from the respondents' points of view are agricultural potentials, which is amounted to (53.6%), followed by tourism potentials with a rate of (44.8%) and finally industrial capabilities (1.6%).

As for how to improve the developmental reality of the center and its sub-districts, the respondents' opinions are the state with a percentage of (53.2%), followed by the private sector with a percentage of (41.2%) and then foreign investment (5.6%).

As for the areas in which investments succeed in the center and its surroundings, they are investment in tourism from the respondents' point of view, at a rate of (44%), followed by (agriculture, industry, agricultural manufacturing, and commercial), respectively, at a rate of (31.2%, 3.2%, 11, 6% and 10%) respectively.

## **2.2 Multiple linear regression of the intentional questionnaire according to the objective sample (intentional) of executive officials and experts in the center and its sub-divisions:**

$$\begin{aligned}
 & \text{(The spatial Dimension) } Y \\
 & = \text{hard limit } \beta_1 * x_1 + \beta_2 * x_2 + \dots \\
 & \quad + e \text{ dimensions (Institutional, economic, social, urban, environmental)}
 \end{aligned}$$

Where:

X1 = the first independent dimension

X2 = second independent dimension

$\beta_1$  = slope of y at the distance of the first independent variable

$\beta_2$  = slope of y at the distance of the second independent variable

$\beta$  = the effect coefficient shows the rate of change of the function

### **2.2.1 The Main Hypothesis of the Study**

MH: There is no statistically significant effect of the dimensions of the developmental strategy predictive variable (institutional, economic, social, urban, environmental) on the predicted variable, achieving spatial justice in its (spatial) dimension.

Table (2-2) The effect of the dimensions of the developmental strategy variable on the spatial dimension of the variable achieving spatial justice using multiple linear regression:

dimension s of the questionn aire	A	$\beta$	T calcula ted	T tabula ted	Sig ·	F calcula ted	F tabula ted	Sig · total	The decision to accept the hypothe sis	predictor variable
<b>economic</b>	1.97 1	0.2 87	3.039	2.021	0.0 04	7.415	2.606	0.0 00	Alternati ve Hypothe sis	<b>Achieving spatial justice</b>
<b>organizati onal institution al</b>	1.97 1	0.0 75	0.334	2.021	0.7 40	7.415	2.606	0.0 00	null hypothes is	
<b>environme ntal</b>		0.0 16	0.118		0.9 06					
<b>urban social</b>	1.97 1	0.2 54	2.073	2.021	0.0 44	7.415	2.606	0.0 00	Alternati ve Hypothe sis	
$R = 0.82$ $R^2 = 0.67$ $R^{2-} = 0.65$										

Table (2-2) shows the multiple linear regression, which indicates the presence of an effect of the dimensions of the developmental strategy variable (economic, social, urban) on the variable spatial development achievement (spatial dimension) at a statistical significance of (Sig=0.000), knowing that the acceptable statistical significance is at (0.05), with a correlation coefficient ( $R = 0.82$ ) and a coefficient of determination ( $R^2 = 0.67$ ) and a coefficient of determination of the (adjusted) corrector ( $R^2- = 0.65$ ). It means that the dimensions of the predictive variable (economic, social, urban) are able to explain and show the change in the variable that achieves spatial development at a level (65%) and the rest of the percentage is attributed to other external factors. As for the degree of influence  $\beta$  for the two dimensions, they are (0.287, 0.254), respectively, meaning that the change in one unit of the two independent dimensions will lead to a change in the predicted variable with a value of (28.7). (% , 25.4%) respectively. It means that the change in the two independent dimensions leads to a change in the dependent variable, and the calculated (T) value (3.039, 2.073), respectively, confirmed the significance of this effect, which is greater than its tabular value (2.021) and with a significant level of (0.004, 0.044) respectively. (F) shows significant change of (7.415), which is also greater than its tabular value (2.606), and these results show that we accept the alternative hypothesis that there is a statistically significant effect of the dimensions of the strategic predictive variable (economic, social, urban) on the predicted variable, achieving spatial justice in its (spatial) dimension and rejecting the null hypothesis that has been determined, and it is considered a good regression model where:



Y Achieving spatial development (spatial dimension) = 1.971 + 0.287 (economic dimension) + 0.254 (social urban).

As for the dimensions (environmental, institutional and organizational) it is found that they have no effect, as the degree of influence is  $\beta$  (0.016, 0.075) respectively. The calculated (T) value of (0.118, 0.334) is confirmed, respectively, which are smaller than the tabular (T) value of (2.021), and these results show that we accept the hypothesis that determined that there is no statistically significant effect of the dimensions of the strategic predictive variable (environmental, institutional, urban) on the predicted variable to achieve spatial justice in its (spatial) dimension.

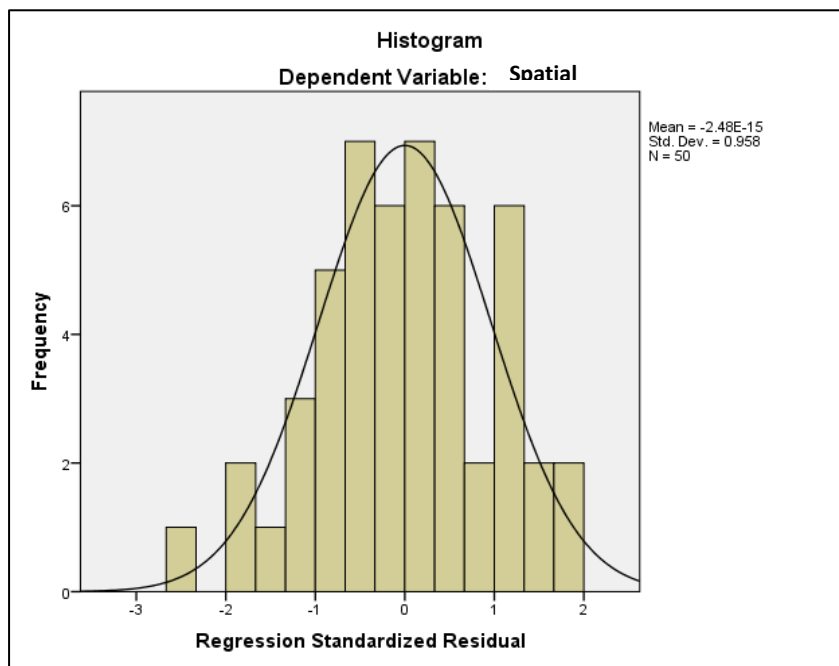


Figure (2-1) graphic histogram shows whether the data follow a normal distribution

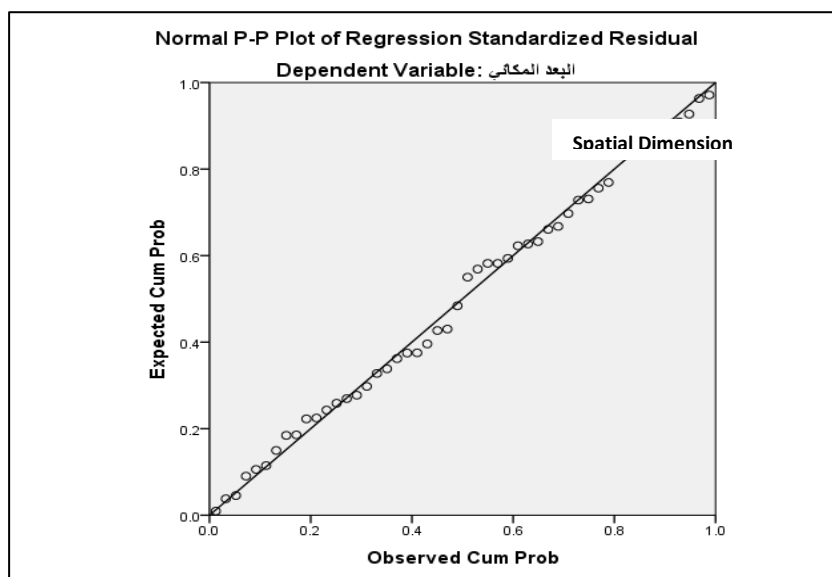


Figure (2-2) a graph shows whether the data are collected around the straight line

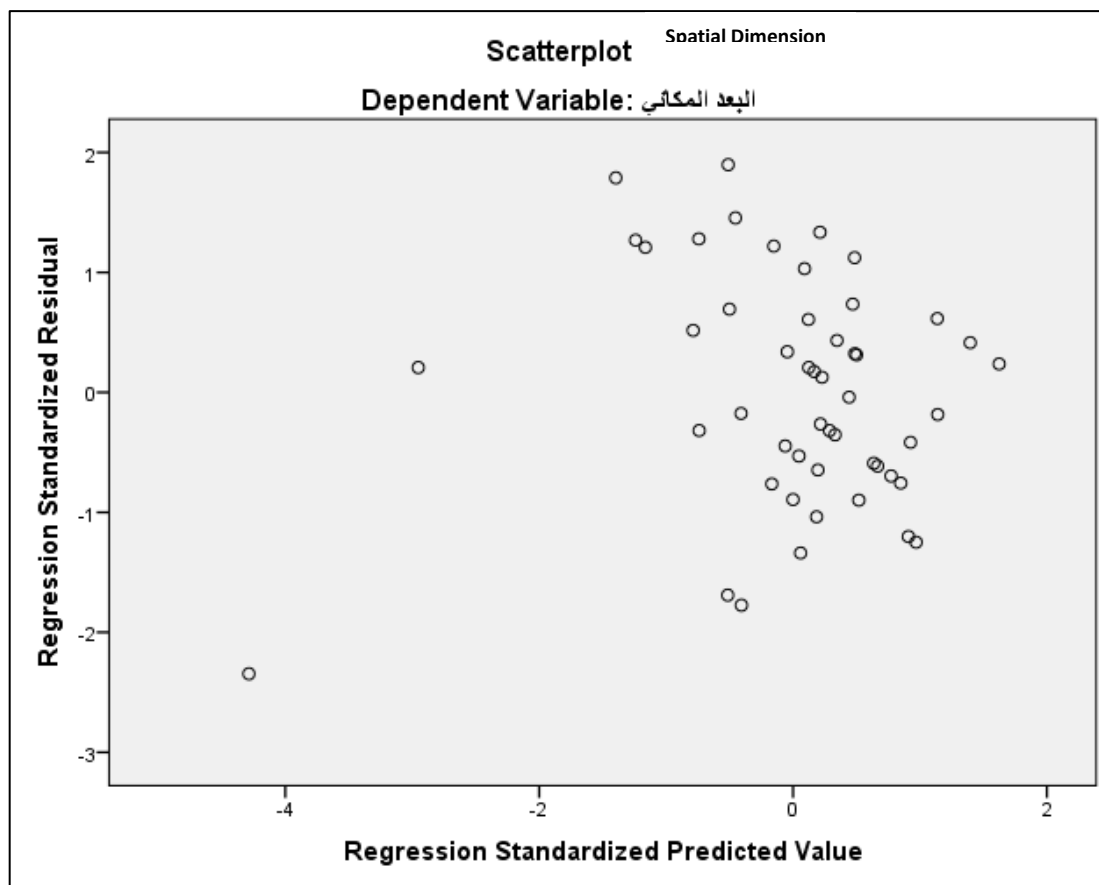


Figure (2-3) The figure shows the scattering pattern of the residuals with the expected values

## Conclusions

1. The cultivated area with wheat and barley in the sub-districts (Sirwan + Bamo, Khormal, Bayara) amounted to (46%, 44%, 32%) respectively, while the other crops amounted to (32.6%, 48.8%, 37.8%) respectively. Winter crops amounted to (2.2%, 1.0%, 1.0%), while summer vegetables amounted to (11.9%, 2.0%, 3.1%), respectively, and for fruit orchards they amounted to (7.1%, 4.1%, 26.1%).

2. The total number of industrial establishments in the district of Halabja and its suburbs (large, medium and small) respectively amounted to 2, 3, 2 establishments, respectively, while the total number of workers reached (131) workers.

3. There are many shrines and archaeological sites that have not been exploited for tourism in the district of Halabja and its environs, but there are the active ones, including the presence of the (5) shrines that can be visited and considered as one of the active tourist attractions. Moreover, there are (5) archaeological sites that can be visited, they are considered of the active sites, meaning that the district abounds with many heritage and archaeological monuments, if invested, it will be an important economic resource. The district also includes recreational possibilities numbered (6), which are considered among the most prominent recreational possibilities.

4- The results from the standard multiple regression tool shows the existence of a statistically significant effect of the dimensions of the predictive variable, the development strategy (economic, social, urban) on the predicted variable, achieving spatial justice in its (spatial) dimension. It means that it is on the executive authorities (the presidency of Governorate, and municipality of Halabja) to develop and use dimensions (economic, social, urban) because it works to increase the level of spatial development in the district with its spatial dimension and thus achieve development in relation to the center and its subordinate areas. As for the dimensions (institutional, organizational, environmental) it is found that they have no effect. Therefore, it is necessary for the executive authorities to focus on these dimensions and work to develop them. In general, we note from the above that the dimensions of the independent variable development strategy lead to improvement in achieving spatial development in the district of Halabja and its suburbs.

### **Recommendations**

Throughout the findings, it is also found that in order to achieve spatial justice in the district of Halabja, it should be implemented according to the following recommendations:

1- The distribution of human and material resources must be in a way that achieves the justice distribution of investments between the study area and its administrative units, as well as preparing studies and reports on everything related to development at the level of the governorate and its administrative units in order to indicate the developed and less developed areas and between urban and rural areas in Halabja to achieve spatial justice.

2- Determining the obstacles that stand in the way of preparing and implementing the spatial development strategy for the study area, including the allocations of development programs that should be sufficient compared to the size of the needs and development potential of the study area, as well as finding new investment opportunities due to its investment, and addressing the problems of spatial disparity in the study area.

3- Taking advantage of the available economic potentials (agriculture, industry, tourism, trade) to attract investments to it, filling the needs of the study area by activating and rehabilitating untapped economic activities, and determining the type of economic potentials available according to their comparative advantage in the study area to attract investments to it and to increase employment opportunities and reduce of urban migration.

4- Application of the development strategy that aims to stabilize the population in their administrative units through development projects, and the participation of the local community in the nature of development projects that are approved in the investment programs of the regions, to achieve social justice and equal opportunities for all residents, taking into account the nature of basic needs in terms of Social services and anchor structures for the study area.

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