RESEARCH ARTICLE

Impact Of Investment Projects In Changing Master Plan Of Najef Holy City

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ABSTRACT

Planning for investment projects is considered one of the most effective means of changing the economic and urban structure of the city, and signing these projects in a random manner will inevitably lead to many impacts on the economic, social, environmental, and urban characteristics. Investment projects in the Holy City of Najaf have varied in type, size, and capabilities, as the problem of the research is the lack of clarity to the extent of the impact of these projects within the master plan of the city of Najaf on the effectiveness of this plan (land use) and in multiple dimensions. The research was based on the hypothesis that the suitability of investment projects within the master plans of cities is related to the nature and type of the investment project and its spatial effects, and it was the objectives of the research are to study the reality of the state of investment projects, identify and analyze the effects resulting from the change in the master plan due to investment, and arrive at the most important indicators and axes through which the spatial effects of the selected investment projects on the effectiveness of the master plan for the Holy City of Najaf can be measured and interpreted. The importance of the research lies in knowing the impact of these Projects based on the change in the master plan and knowing the effects of the spatial suitability of these projects by measuring them with indicators (economic, social, environmental and urban). The field study included analyzing the indicators using descriptive and quantitative statistical methods. The method used was the multiple linear regression method to analyze the results using the statistical program SPSS. A number of factors were found behind this phenomenon, including political and economic factors that push investment to make investment opportunities for projects at the expense of other land uses. These factors led to economic, social, urban and environmental impacts on the effectiveness of the master plan for the city of Najaf. The research recommends the necessity of following planning policies. Sound and determining the most appropriate location for each investment project according to the spatial distribution of land uses within the master plan, considering that the master plan is a law so that there is no change in land uses that affects the master aspects (economic, social, urban and environmental).

INTRODUCTION

The master plan is one of the most important advanced products of urban planning to solve the problems of cities, organize their expansion, and outline the features of their future structure. It is one of the master tools for drawing up planning policies for the city, and shows its future structure, changing future land uses, and determining events, population densities in urban areas, road
networks, and systems. Transportation necessary to connect activities and facilitate communication between them.

The goal of land use planning is to create a functional balance and ideal behavior for the elements of the urban fabric, all of which contribute to human comfort. However, the random changes that occur to the uses of city land make the urban individual lose his comfort and confuse the functions of his city. The poor distribution of different uses and their placement in different places leads to... Random land use results in many economic, social, security, and planning problems. The importance of planning investment projects spatially comes in creating comprehensive development that is capable of continuity and development. Therefore, planning investment projects is considered one of the most important effective means in changing the economic and urban structure of the city.

1.1 Research problem

The problem of the research is the lack of clarity on the extent to which investment projects within the master plan of the city of Najaf impact the effectiveness of this plan (land uses) and in multiple dimensions.

1.2 Research hypothesis

The appropriateness of investment projects within the master plans of cities is related to the nature and type of the investment project and its spatial effects.

1.3 Research aims

1 - Study the reality of the investment projects within the master plan and identify and analyze the effects resulting from the change in the master plan due to investment.

2 - Reaching the most important indicators and axes through which the spatial effects of the selected investment projects on the effectiveness of the master plan for the Holy City of Najaf can be measured and interpreted.

1.4 Research importance:

The importance of the research lies in knowing the impact of investment projects on the change in the master plan and knowing the effects of the spatial suitability of these projects by measuring them with indicators (economic, social, environmental and urban).

RESEARCH METHODOLOGY

Adopting the descriptive and analytical approach in describing and analyzing the phenomenon and then coming up with indicators of the theoretical framework and testing them by asking them through direct questions for a purposive sample (using the questionnaire form as a master tool in research for a purposive sample) and through the answers, the results were analyzed using statistical methods (the multiple linear regression method). Using the statistical program SPSS.

2. THEORETICAL FRAMEWORK

2.1 Master plan definition and concept:

There is a set of definitions for the master plan, as it is the guide that guides society to growth and development through public and private reconstruction, and which firmly emphasizes the designation and determination of locations and areas for different land uses and finding the standard relationship between the various types of main uses (Kakoz, 2001, p. 40).
The master plan of the city is one of the master tools for drawing up planning policies for the city, and it is considered one of the most important advanced products of urban planning to solve the problems of cities, organize their expansion, and draw the features of their future structure, as well as planning the road and transportation system to ensure easy communication between activities (Lafta, 2006, p. 50).

The master plan includes master studies, analysis of information, and preparation of plans. This information includes the generality of society, general uses, and the plan’s relationship with the broader planning of the region and the state. The comprehensive plan of the city (the master plan) aims to direct the city urbanally for the next (20-30) years. To do this, it works to organize the social, economic, political and natural variables in the city and direct them to ensure an increase in its efficiency in a balanced manner (Kakoz, 2001, p. 40).

The master plan is defined as a framework prepared over time phases that may reach a total of fifty years, in order to accommodate the variables of the city's location, its society, and its region (Al-Muzaffar, 2010, p. 48). It is defined as the main document in building cities and on the basis of which the city is re-planned and developed. Thus, the plan the foundation constitutes the planning structure and the architectural prestige of the city (Kammouna, 2000, p. 101). It is a framework that interacts with the two units of time and space that the city experiences with all its variables that are implemented by the urban city community, It is the art and science of organizing land uses and the type of buildings and determining their characteristics and methods. Transportation and transport in a way that guarantees the highest practical degree of economy, comfort and beauty (Al-Ani, 2009, p. 197).

2.2 Objectives of the master plan

The main goal of developing a master plan for the city is to achieve a number of goals related to the various economic, social, urban, administrative, environmental, and cultural aspects of the city. Among these goals are the following (Kamouna, 2000, pp. 106-107)

1- Develop a strategy to direct and control the city’s growth during the time the plan is drawn up.

2- Balancing the spatial distribution of land uses during the planning period to ensure coordination of the various activities provided by the city.

3- Protecting and developing natural areas and green spaces within the city and preventing them from being exploited for other purposes, protecting rivers and water sources, making optimal use of them, and improving the general environment of the city.

2.3 The importance of the master plan

The master plan is the result of field and theoretical studies and research necessary to form the necessary background to determine the city’s needs and rationalize its urban land in general, within the framework of the impact of the spatial dimension of the plan's investments in various sectors.

The master plan map is what organizes and determines the spatial distribution of these uses in the city's land and explains the nature and density of the different uses, whether residential, industrial, commercial, entertainment, services, transportation, utility networks, and public services (Hamid, 1999, p. 74).

The master plan is considered one of the most important planning factors that have a direct impact on changing the city, as it shows the future structure of the city, changing the proportions of proposed future land uses, signing activities, road networks, transportation systems, development and preservation areas, and specification areas of historical importance (Salam Abdel Hussein Jawad, 2011, p. 127).
2.4 Factors affecting the implementation of the master plan

The stage in which the master plan is implemented is one of the most difficult stages that the city plan goes through due to the presence of many factors that affect the implementation of the master plan, the most important of which are (Jassem, 2015, p. 32)

1. The detailed plan is not integrated with the master plan, and the reason for this may be the lack of the necessary planning and design staff to prepare detailed plans that are carefully studied in all aspects so that they are compatible with the development of the city and its construction, and that haste in this area leads to the superficiality of the solutions and plans.

2. Social and economic changes occurred in the city community during the implementation period of the master plan that were not expected and were not taken into account, whether the change was negative or positive. Therefore, sufficient flexibility must be available to confront such situations.

3. The introduction of new technical factors that require or lead to a change in some of the city's activities and its entity or the introduction of new activities.

4. A discrepancy in the growth of the city from what was intended in the plan, whether the population increased by rates greater than or much less than what was expected, which requires modifications to be made in the master plan and detailed plans.

2.5 The concept of spatial investment and its types

Investment can be defined: as directing a portion of capital assets to increase production capacity and establish development foundations in a specific spatial area, in addition to allocations to compensate for losses and increase the stock of capital goods, and this in turn tends to achieve goals in the opinion of the planner that do not necessarily increase regional and then national income according to Rather, perhaps to achieve other goals, the first of which is the pursuit of social justice, and to establish developmental foundations from capitalist and social formations to serve the productive process and the well-being of society in the coming stages.

Introducing the spatial dimension into the subject of investment does not change the concepts adopted according to economic theory, as much as it strengthens those concepts by giving them their real dimensions in which they move, which are the sectoral dimension, the temporal dimension, and the spatial dimension (Al-Jubouri, 2016, p. 13).

2.6 Objectives of spatial investment

Investment planning includes all the processes related to allocating investment, so that you get the maximum possible return from the resources allocated to investment by raising current output rates by increasing production capacity. This view focuses on the sectoral aspects of investment planning and achieving direct financial returns. In other words, it focuses on as well as the technical efficiency of investment, this often involves the direction adopted by the private sector in achieving economic profitability, and this matter has its known problems of concentration in certain places and not others and the emergence of spatial disparities in development, and the matter becomes worse in developing countries with young economies (Sultan, 1985, p. 130)

Investment projects are considered a pioneer for economic and social development in countries of the world because they seek to achieve the public interest and improve the economic and social conditions of the state, the most important of which are the following (Alwan, 2009, p. 33):

1- Supporting the process of economic, social and environmental development.

2- Increasing the country's national income, increasing individuals' incomes and achieving well-being for them.

3- Providing new investment job opportunities.
4- Increase production and support the balance of payments and trade balance.
5- Providing community infrastructure by increasing spending on public services.

2.7 The importance of spatial investments and their determinants

The importance of planning investment projects, sectorally and spatially, is to bring about comprehensive development that can be sustained and developed. The investment plan is not a goal in itself, but rather a response to achieving the general goals in planning. R. Rodan pointed out that the investment planning process inevitably leads to benefiting from savings. External Economies generated in light of large accumulated investments, and the continued accumulation of investments will also lead to creating savings for other economic activities, especially Agglomeration Economies or those resulting from improving the conditions of the site in which previous investments were established, which are called location economies. (Location Economies). From an economic standpoint, economic reasoning, as well as other factors related to site conditions, must be the determining factor in signing any type of investment in various projects (Al-Jabouri, 2016, p. 18).

The failure to adopt the spatial dimension in investment planning and the lack of attention to sectoral interactions in allocating investments has led to the occurrence of what is called dualism in economic and social development, at the level of place on the one hand, and at the level of economic sectors on the other hand, and hence it cannot be Effective investment planning is limited to sectoral allocation of investments, as is the case with traditional methods devoid of the spatial dimension, which are responsible for the unfair distribution of the level of public services, employment and income opportunities, and the required levels of development. Achieving justice is not only related to comparison in the level of economic and social well-being of the individual, but it is also related to exploiting the capabilities available in this or that region, and this is what is called the comparative advantage of a place and related to production in that place. This matter does not receive attention from specialists in the field of sectoral economics, who do not give importance to place, which constitutes a deficiency in maximizing the social welfare function on the one hand, and spatial disparity in the level of development on the other hand. So the question is where are the investments signed? What are those investments? To form the core of the investment planning process in achieving a balance between the technical efficiency of investment and social justice, at the individual and place levels (Al-Jabri, 1985, p. 153).

2.8 Spatial suitability of investment projects within the city’s master plan

The word “appropriate” is known in the language as: agreement, suitability, harmony (the comprehensive dictionary of meanings), (convenient), (suitable), ((fitting) (Al-Jaf ,2015, p. 2)

As for spatial suitability, it can be defined: It is an estimated and evaluative process of the suitability of a particular land for a specific use according to the standards specific to that use of the land (Ghoneim, 2008, p. 160), and it can also be defined: “The extent of the suitability of a place when the type of land use is applied to it,” since planning Land use must be based on a rational basis through evaluation of available resources. (FAO, 1976, p.1)

Studying the optimal location for any project is very important because there is no single inevitable site that has certain characteristics that is specified in development plans. Rather, there are alternatives to more than one site, and each site has its advantages and characteristics. When choosing the project site, we must take into account that it gives the greatest amount of the return is at the lowest cost (Al-Issawi, 2005, p. 248). Hence the importance of choosing the project site well, especially since this choice is final and irreversible after its implementation. The characteristics of the site may vary with the development of technical aspects and the multiplicity and development of human innovations. It is worth noting that the greater the number of suitable places for the location of a project in the development plan, the comparison and selection process required greater effort
and deeper and more comprehensive studies so that the best location for the project included in the plan could be chosen so that it would give a large return at low costs (Al-Zouka, 2012, p. 25), and spatial planning is the best procedure for determining the type of service. What is required, its size, location and timing, as spatial planning will determine the following (Matingly, 2001, p27)

Figure (1) Spatial distribution of investments

2.8.1 Economic suitability (Moayad and Hind, 2012, p. 3)

1- The extent to which the project contributes to achieving added value.

2- The proportion of the number of workers employed by the project, and the job opportunities created by each project.

3- Percentage of foreign workers, which represents the percentage of foreign workers that are employed.

4- The extent of the project’s contribution to the economic development process.

5- Determine the size of the project’s beneficiaries.

6- The foreign currency entering the country due to the project, the amount of cash liquidity.

7- Foreign currency leaving the country, hard currency that will come out in the form of payments.

2.8.2 Social appropriateness (Al-Quraishi, 2009, p. 131):

1- The social responsibility of the project, the extent to which the project contributes to achieving the well-being of society.

2- Achieving a state of satisfaction with the services and products provided by the project.
3-Achieving a state of satisfaction with the services and products provided by the project.

4-The project is among the important priorities when evaluating the beneficiaries, the beneficiary’s opinion of the project.

5-The project can achieve a direct or indirect material benefit to the beneficiaries.

2.8.3 Urban suitability (Ashmawy, 2007, p. 39)

1-The suitability of the project to local laws, and the suitability of the method of construction and operation of the project to the laws.

2-Primary building materials and finishes for investment projects.

3-The method and method of implementing the project, which represents the scientific methods used to implement the project.

2.8.4 Environmental suitability: (Al-Quraishi, 2009, p. 131):

1-Method of treating pollutants, using scientific methods that ensure optimal treatment of pollutants.

2-The environmental impacts of the project, i.e. the extent of environmental damage resulting from the project.

Spatial suitability is the most important element for the success of any investment project through the analysis of geographical, economic, social and environmental factors, through whether investors can choose the optimal location for the project, which increases the chances of its success and achieving its goals.

3. PRACTICAL FRAMEWORK

3-1 The study area and the research community

The Holy City of Najaf has witnessed many changes in land uses within the master plan in various locations and at the expense of various land uses due to investment. Map No. (1) shows the investment projects for the Holy City of Najaf.

Map (1) investment projects for the holy city of Najaf in 2022
Investment projects in the holy city of Najaf varied in terms of type, size, and capabilities, as well as the diversity of goals and objectives for which they were established. This diversity included many different sectors granted by the Najaf Investment Authority and the National Investment Authority, and the philosophy of... People's living establishing these projects is due to the need for their services and the extent of their direct impact on the lives of the residents as well as to achieve the necessary life requirements as well as their contribution to supporting spatial development. These projects can be classified according to the type of project as shown in the following table:
3-1.1 Selecting investment projects within the study area

A sample of the investment projects implemented in the holy city of Najaf was selected for study and analysis according to the following considerations:

1. The change in land uses of the investment map from what is in the master plan, and this in turn leads to a change in the economic, social, urban and environmental characteristics of the city.

2. Its functional diversity: These projects were chosen because they are characterized by the diversity of their functions, including residential, commercial, and recreational.

3. Its various locations within the city's master plan.

Table 1: Investment projects for the holy city of Najaf for the year 2023

<table>
<thead>
<tr>
<th>S</th>
<th>Project Type</th>
<th>Donor body</th>
<th>Number of projects</th>
<th>Total</th>
<th>Completed projects 100%</th>
<th>Projects Underway</th>
<th>Projects not concluded Further investment contracts</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Sector projects (Service - Commercial and Social)</td>
<td>Najaf Investment Authority</td>
<td>56</td>
<td>70</td>
<td>24</td>
<td>32</td>
<td>14</td>
</tr>
<tr>
<td>2</td>
<td>Sector projects (service - entertainment)</td>
<td>Najaf Investment Authority</td>
<td>25</td>
<td>25</td>
<td>13</td>
<td>11</td>
<td>1</td>
</tr>
<tr>
<td>3</td>
<td>Sector projects (Residential)</td>
<td>Najaf Investment Authority</td>
<td>31</td>
<td>33</td>
<td>7</td>
<td>21</td>
<td>5</td>
</tr>
<tr>
<td>4</td>
<td>Sector projects (tourist)</td>
<td>Najaf Investment Authority</td>
<td>26</td>
<td>27</td>
<td>14</td>
<td>12</td>
<td>1</td>
</tr>
<tr>
<td>5</td>
<td>Sector projects (industrial)</td>
<td>Najaf Investment Authority</td>
<td>16</td>
<td>18</td>
<td>9</td>
<td>5</td>
<td>4</td>
</tr>
<tr>
<td>6</td>
<td>Sector projects (healthy)</td>
<td>Najaf Investment Authority</td>
<td>8</td>
<td>14</td>
<td>8</td>
<td>5</td>
<td>1</td>
</tr>
<tr>
<td>7</td>
<td>Sector projects (educational)</td>
<td>Najaf Investment Authority</td>
<td>15</td>
<td>18</td>
<td>8</td>
<td>7</td>
<td>3</td>
</tr>
<tr>
<td>8</td>
<td>Sector projects (Agriculture)</td>
<td>Najaf Investment Authority</td>
<td>6</td>
<td>8</td>
<td>0</td>
<td>5</td>
<td>3</td>
</tr>
<tr>
<td>9</td>
<td>Sector projects (athlete)</td>
<td>Najaf Investment Authority</td>
<td>2</td>
<td>9</td>
<td>0</td>
<td>7</td>
<td>2</td>
</tr>
</tbody>
</table>

Total: 222, 83, 105, 34

Map (2) of the investment projects selected for the study
3.1.2 The research community and its procedures

3.1.2.1 Research community

The results of the research community indicate that most of the specialists working in departments in the city of Najaf are those who work in the Municipality Directorate, at a rate of 45%, followed by specialists working in the Najaf Planning Directorate and the Urban Planning Directorate, with the same percentages, which are (27.5%, 27.5%), respectively.

3.1.2.2 Research sample

The specialist questionnaire form was distributed to a purposive sample of specialists, numbering 40 questionnaires.

3.1.2.3 Questionnaire form

The study questionnaire form consists of two main indicators: the general independent variable, investment, which contains multiple axes represented by (social, economic, environmental, urban), and these axes contain paragraphs, a total of 20 items, and the general dependent variable, the master plan of the city of Najaf, which contains one axis represented by (Spatial suitability) and also contains 5 paragraphs. Through these axes, the opinion and orientation of the respondents will be stated on the subject of the study: The impact of investment projects in changing the master plan of the Holy City of Najaf.

3.2 Analyzing the master data of the study sample’s answers

The data was analyzed based on the answers of the purposive sample of the study and using statistical methods and the tools of the statistical program (IBM SPSS Statistics V.26), and the results were reached:

3.2.1 Analysis of hypothesis testing:

By testing hypotheses, the main hypothesis is determined through which the impact, strength and direction of the relationship between the dimensions of the general variable investment (social, economic, environmental, urban) and the general dependent variable, the master plan of the city of Najaf with the axis (spatial suitability) is measured.

3.2.2 Multiple linear regression tool using the multiple weighted least squares method:

One of the statistical methods used in modeling relationships between one or more independent variables (predictive) and a dependent variable (predicted) is multiple linear regression using the multiple weighted least squares (WLS) method.

It is assumed that there is a linear or non-linear relationship between these independent variables and the dependent variable, through which the effect and relationship between these variables is demonstrated. Therefore, the goal of the linear regression method using the WLS method is to estimate the values of the coefficients, and once these coefficients are estimated, predictions can be made on the dependent variable, and therefore we can Multiple linear regression using the WLS method by knowing how multiple independent variables contribute to influencing the dependent variable, and this provides us with an understanding of the importance, direction, and strength of the relationship between the independent variables and the dependent variable.

In the current study, investment is the general independent variable, which contains independent axes represented by (social, economic, environmental, and urban), and the master plan of the Holy...
City of Najaf is the dependent variable, which contains only one axis (urban suitability), which will be done through the answers to a questionnaire. The study is for specialists and also by applying the linear regression method with the weighted least squares method (WLS) to demonstrate the effect and relationship between these variables, as the WLS method fits the multiple linear regression model with the data set of the axes’ paragraphs, where each observed value from the data of these paragraphs is treated with a varying level of accuracy and according to the importance of these observations and their impact on the regression line by giving an appropriate weight to each observation value. This is the opposite of normal standard regression, which deals with all data points at one level. As a result, the weighted least squares method will lead to finding an optimal or better model than the normal standard method.

The assumed model of multiple linear regression using the WLS method can be written as follows:

\[ \text{Min } \sum w_i \ast (Y_i - (\beta_0 + \beta_1 \ast X_1 + \beta_2 \ast X_2 + \cdots + \beta_k \ast X_k))^2 \]

Where it represents:

- \( \text{Min } \sum w_i \): Minimize the sum of the weighted weight that will be assigned to each observation value.
- \( Y_i \): response (dependent) variable
- \( \beta_0 \): The fixed term (cutoff) that represents the starting point of the slope of the regression line.
- \( \beta_1, \beta_2, \ldots, \beta_k \): multiple linear regression coefficients
- \( X_1, X_2, \ldots, X_k \): The independent variables whose impact we want to show on the dependent variable

(Baltagi, 2021, p. 392-401)

3.2.2.1 Main hypothesis:

M.H.: There are no statistically significant effects at a significance level of (0.05) for the axes of the variable investment in the variable The master plan for the city of Najaf with its only axis (spatial suitability)

Table (2) Multiple linear regression using the weighted least squares method for the dimensions of the variable investment in the variable the master plan for the city of Najaf

<table>
<thead>
<tr>
<th>Coefficients Model</th>
<th>Sig. For each table</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>0.00</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Independent axes</th>
<th>A</th>
<th>( \beta )</th>
<th>T Calculated</th>
<th>T Tabular</th>
<th>Std. Error</th>
<th>Sig</th>
<th>Decision to accept hypothesis</th>
<th>Dependent variable</th>
</tr>
</thead>
<tbody>
<tr>
<td>Social</td>
<td>1.618</td>
<td>0.456</td>
<td>3.054</td>
<td>2.021</td>
<td>0.149</td>
<td>0</td>
<td>Alternative hypothesis</td>
<td>The basic plan of</td>
</tr>
<tr>
<td>Economic</td>
<td></td>
<td>0.382</td>
<td>2.646</td>
<td></td>
<td>0.145</td>
<td>0.01</td>
<td></td>
<td>the city of Najaf</td>
</tr>
<tr>
<td>Environmental</td>
<td></td>
<td>0.082</td>
<td>0.41</td>
<td></td>
<td>0.199</td>
<td>0.68</td>
<td>Null hypothesis</td>
<td></td>
</tr>
<tr>
<td>Urban</td>
<td></td>
<td>0.636</td>
<td>5.663</td>
<td></td>
<td>0.112</td>
<td>0</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

\( R^2 = 0.636 \)
\( R^2 = 0.699 \)
\( R^2 = 0.665 \)
Table (2) indicates multiple linear regression analysis using the weighted least squares method to determine the effect and relationship of the independent axes of the investment variable (social, economic, environmental, urban) in the response variable. The master plan for the city of Najaf with its spatial suitability axis and to know whether the response variable can be predicted from the independent variables, the regression equation is described by the WLS method as follows:

\[
\text{Min } \sum w_i \text{ (Master plan)} \left( y - (1.618 + 0.456 \times X1 \text{ (Social axis)} + 0.382 \times X2 \text{ (Economic axis)} + 0.636 \times X3 \text{ (Urban axis)}) \right)^2
\]

**Interpretation of model summary coefficients:**

1. The multiple correlation coefficient (R), which has a value of 0.636, indicates the presence of a partial positive correlation relationship, which is considered a correlation relationship (strong to moderate) between the axes used in forecasting (social, economic, environmental, urban) and the response variable, the master plan for the city of Najaf with its axis (spatial suitability).

2. The coefficient of determination (R-Squared) with a value of 0.699 indicates that the variation occurring in the response variable of the master plan of the city of Najaf can be explained by the combined effects of the independent axes of social, economic, environmental and urban.

3. The adjusted coefficient of determination (Adjust R Squared) with a value of 0.665 indicates that 66.5% of the amount of variance occurring in the master chart is accounted for by the independent axes, taking into account the number of independent variables and the sample size.

4. The standard error coefficient for multiple regression (Std.Error) indicates that the average distance between the observed values and the expected values was estimated at (0.149, 0.145, 0.199, 0.112), respectively. This indicates that the model predictions (the expected values produced by the regression model) that were generated by the program may deviate from the actual baseline chart by about (0.149, 0.145, 0.199, 0.112) units on average, respectively, and these values indicate a moderate level of uncertainty in the predictions of the regression model. That is, there is an error rate of (0.149, 0.145, 0.199, 0.112) when stating the prediction (effect) on the master chart through the independent variables, and this is a very acceptable percentage of error.

**Interpretation of ANOVA coefficients:**

1. The calculated F value of 20.367 indicates confirmation of the explanatory power of the model as a whole, which is greater than its tabulated value of 2.690.

2. The statistical significance Sig of 0.000 indicates that the regression model as a whole has statistical significance and that the calculated F value is high and is not a coincidence and therefore can be relied upon to reject the null hypothesis and accept the alternative hypothesis.

**Interpreting the coefficients of the model axes:**

1. The regression model found that a one-unit increase in the social axis is associated with an increase of 0.456 units in the master chart variable when the rest of the independent axes are constant, and this increase is statistically significant with a Sig value of 0.004.

2. The regression model found that a one-unit increase in the economic axis is associated with an increase of 0.382 units in the master chart variable when the rest of the independent axes are constant, and this increase is statistically significant with a Sig value of 0.012.
3-The regression model found that a one-unit increase in the urban axis is associated with an increase of 0.636 units in the master plan variable when the rest of the independent axes are constant, and this increase is statistically significant with a Sig value of 0.000.

4-The calculated T value of (3.054, 2.646, 5.663) respectively indicates confirmation of this effect, and is greater than its tabulated value of 2.021.

4. STUDY CONCLUSIONS

The study proved the following:

1-Not implementing land uses within the master plan helped invest in the spatial location of these projects at the expense of other land uses.

2-There are many factors behind the aggravation of this phenomenon, including political factors and economic factors represented by the motive of financial profit, which drives investment to make investment opportunities for projects at the expense of other land uses.

3-There is an oversight weakness of the relevant authorities as a result of pressure from influential political forces that led to changing the uses of the land within the master plan on the one hand and within the plans drawn up for the projects on the other hand.

4-The multiple regression model shows that there is a statistically significant effect of the axes (social, economic, and urban) on the master planned variable. On this basis, the null hypothesis will be rejected and the alternative hypothesis will be accepted, which states that there are statistically significant positive effects with a significance level of 0.05 for the variable axes Investment (social, economic, urban) in the master planned variable for the city of Najaf with its only axis (spatial suitability).

5-We conclude that if the social, economic, environmental and urban aspects are taken into consideration when implementing the investment, this will lead to improvement in the master plan and thus lead to improvement in land uses.

6-We conclude that the environmental axis does not have a statistically significant effect (negative effect) on the master planned variable in this study sample, and the reason for this is that the environmental effects may require a long time to confront their environmental effects on the city.

5. STUDY RECOMMENDATIONS

1-Follow a comprehensive approach that takes into account thoughtful strategies in the spatial design of investment projects to limit the phenomenon of change in the master plan of the Holy City of Najaf.

2-The importance of the planning decision, which should be based on an analytical study of investment projects as well as the spatial signature of these projects, and in a way that can mitigate the negative effects of investment projects on the urban structure of the city.

3-The necessity of following an investment planning policy due to the economic and social returns it achieves, in its sectoral and spatial dimensions, as it tends to create a development base that contributes to accelerating the pace of economic, social and urban development, and to reducing economic and social disparity between the regions of one city.

4-The necessity of following sound planning policies and determining the most appropriate location for each investment project according to the spatial distribution of land uses, considering that the master plan is a law so that there is no change in land uses that affects the master aspects (economic, social, urban and environmental).
The social, economic, environmental and urban aspects must be taken into consideration when setting the location of investment projects, leading to the permanence and sustainability of the master plan for the Holy City of Najaf.

The concerned authorities must not approve investment projects if they do not fit the classification of land uses within the master plan and follow up on the implementation of these investment projects according to the plans approved by the concerned authorities.

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