

Using SEM To Analyze the Relationship between Strategic Leadership and Sustainable Development: A Field Study of Health Institution

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Abstract—Health institutions in their various departments are considered the vital artery for the continuity of life, as they contribute effectively to providing all health services to citizens in line with the requirements of life through strategic leadership that organizes the work of these institutions by developing strategic plans. The aim of this study is to measure the extent of the influence and relationship between strategic leadership and development. The problem of the study included knowing the main role that strategic leadership contributes to in developing the work of health institutions and their sustainability in a way that provides citizens with services. A random sample was taken from workers in health institutions, and data was collected through the use of a questionnaire form as a tool for all data, and the size of the valid sample was for the analysis (132), the SPSS program was used to enter the data and the SEM program Structural Equation Model (AMOS) for the purpose of analyzing it and measuring the relationship and influence between the variables referred to above. The results were reached that there is a strong relationship with significant statistical significance between the two variables, strategic leadership and sustainable development, in addition to this is the impact of strategic leadership on sustainable development, a positive emotional impact.

Keywords— SEM-AMOS, Strategic Leadership, Sustainable Development, Health Institutions.

I. INTRODUCTION

The health sector is considered one of the important public institutions that contribute directly to the development of resources and capabilities for the environment. Alagele et al at 2025 the organizational climate is important to organization Many studies and researchers have focused on the health sector because of its great role and importance in the daily life of humans and because of its relationship with state institutions. Therefore, light and full attention must be shed on this sector, and here comes the role of leadership in shaping the features of the growth and development of this sector through the great role it plays in developing skills and capabilities and drawing up public policies, which are represented by goals, plans and strategies in a way that is compatible with the work environment and in a way that is compatible with the nature of

the citizen's daily life in the country. Alagele et al. 2024 must important in team work in organization Developing and improving the skills of workers in various scientific fields, and here comes the relationship between leadership and the health sector. (Massoudi, 2024) It is a great and important relationship because it has a major role in developing this sector. Here, leadership is represented by strategic leadership, which is considered the effective element in developing workers' skills and developing their scientific and administrative capabilities, which contributes to improving and developing the health sector directly and indirectly. (Ogbonna,2000; Zaidan et al, 2024) The success of leadership in developing the work of the health sector comes through many concepts, and one of the most important of these concepts is the development of sustainability, which is represented by the permanence and continuation of work, which is considered one of the important variables in administrative, professional and academic work because it has a major role in qualifying, developing and completing various administrative works and how to maintain them (Yukl,2002; Al-Delawi & Ramo, 2020). On those actions through ideas and proposals that the leadership works to focus on The topic of sustainability or the development of sustainability is of great importance, as it has come with various concepts and definitions. (Younus et al., 2022; Qader et al, 2025) Maintaining or continuing to develop and work without stopping in various scientific, intellectual, and life fields is considered, and this preservation of these fields and the wheel of growth is called sustainability or the development of sustainability (William, 1983; Birdawod, 2022). The Role of Leadership in The Health SectorThe concept of leadership is considered one of the distinctive concepts in sustainability from different points of view. Among these elements, leadership contributes to the process of administrative growth and development and developing the skills and behavioral pattern of employees in the organization by raising efficiency for the purpose of achieving the organization's goals (Tafvelin 2013; Tikk, Kaska, and Vihul 2010). Many studies and researchers have focused on the health sector because of its great role and importance in the daily life of humans and because of its relationship with state institutions. Therefore, light and full

attention must be shed on this sector, and here comes the role of leadership in shaping the features of the growth and development of this sector through the great role it plays in developing skills and capabilities and drawing up public policies (Grunig and Grunig 2000; Habes, Alghizzawi, et al. 2018).hussain el at. 2014 Leadership contributes directly or indirectly to the process of developing the health sector by providing the sector with expertise and skills, raising the level of workers' skills, and making the right selection of leaders and technical and administrative administrative units, which develop plans and strategies and contribute to the innovation process (Arif 2018; Habes et al. 2019; Salloum, Al-Emran, Khalaf, et al. 2019) .

A. Research problem

The health sector is considered one of the important institutions that must be highlighted because it is considered an important source in the growth of the sustainability of life, which has a relationship with all institutions. Due to the lack of studies, this study came to shed light on addressing the gap, which is represented in how to maintain the sustainability of this important sector, and it is possible to formulate the research problem. Through the question: Does strategic leadership affect sustainability in the health sector?

B. Objectives of the study

There are a number of objectives that the current study aims to achieve, which are:

- 1- Measuring the impact of strategic leadership on sustainability in the health sector
- 2- Testing the direct relationship between the independent variable (strategic leadership) and the dependent variable (sustainability).

C. Hypotheses:

The study includes two main hypotheses, which represent the independent variable and the dependent variable in the health sector for strategic leadership and sustainability, which are:

- H1: Strategic leadership (LS) has a significant impact on sustainability (SU).
- H2: Strategic leadership (LS) has a significant positive statistical relationship on)SU) sustainability

II. METHODOLOGY

The study included two main variables, a dependent variable and an independent variable, where the dependent variable is strategic leadership and the independent variable is sustainability in the health sector. The two researchers in this study relied on the use of the method or quantitative method in collecting and analyzing data, whereas the researcher in this study used the quantitative method because it is compatible with the nature of the study and with the complex. The researchers focused on using the questionnaire form as the main tool in collecting data Where the researcher studied the housing complex represented in the health sector, a random sample was taken because a random sample would be more appropriate

because the complex studied is large, which requires taking a random sample of workers in the health sector, specifically in Baghdad Governorate, and 180 were distributed among the sample that was randomly selected and whose work is In the health sector, it was good for us to analyze 132 questionnaires. The researcher used the data collected by the SPSS program to enter it into the program, and it was analyzed using the Amos SEM program, Structured Equation Model, version 24. The purpose of this is to analyze the relationship between the independent variable and the dependent variable represented by strategic leadership and sustainability.

III. RELIABILITY

The items were tested in terms of reliability or credibility using SPSS for the two variables (strategic leadership and sustainability), and the results shown below showed a high degree of reliability for the items tested in the questionnaire.

Table No. (1) Reliability of the variables

| Variable | Degree of reliability |
|----------------------|-----------------------|
| strategic leadership | 0.84 |
| Sustainability | 0.80 |

Testing the variable Strategic Leadership (LS) through the AMOS program:

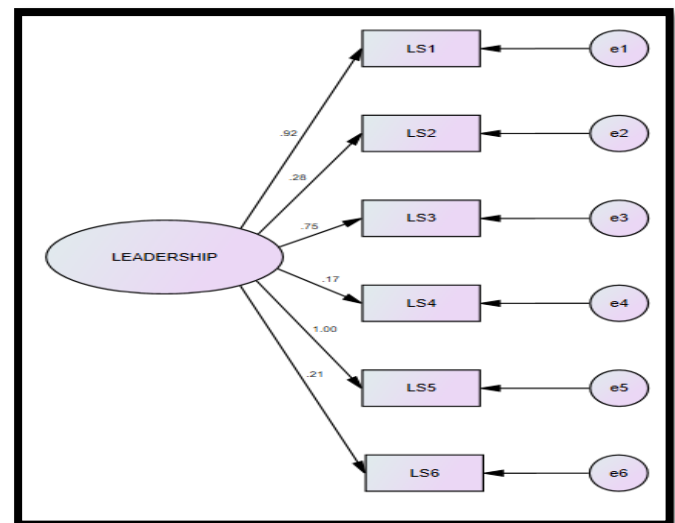


FIGURE 1: The Measurement Model For Measuring Strategic Leadership
The driving variable was reported through the Amos program, and it is clear from the figure above that the variable needs to be modified, as it is clear that each of (LS2, LS4, LS6) is less than (0.5), and therefore the model needs to be modified, as it was modified by deleting the paragraphs whose percentage Less than the specified percentage.

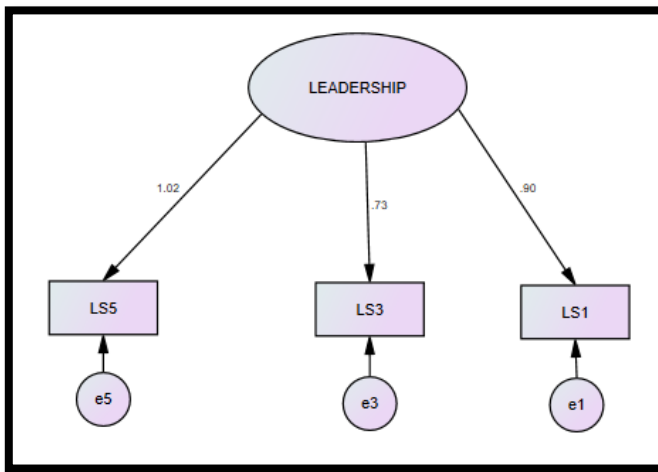


FIGURE 2: The Measurement Model For Measuring Strategic Leadership After Modification

It is clear from the figure above that the variable that was tested in the Amos Strategic Leadership program after modification shows that the result is good and can be tested with the other variable, as it is clear that the influence factor is more than 0.5, and therefore the percentage is considered acceptable and good.

RMR, GFI

| Model | RMR | GFI | AGFI | PGFI |
|---------------|------|-------|------|------|
| Default model | .000 | 1.000 | | |

Baseline Comparisons

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---------------|---------------|-------------|---------------|-------------|-------|
| Default model | 1.000 | | 1.000 | | 1.000 |

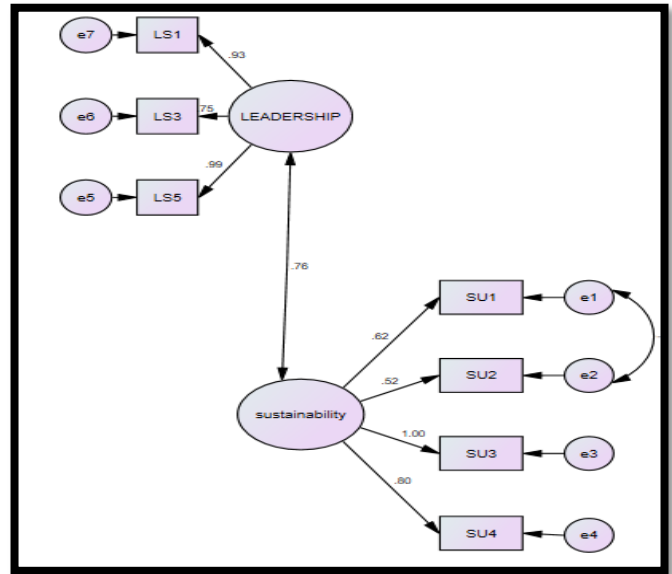


FIGURE 4: The Measurement Model For Measuring The Relationship Between Strategic Leadership And Sustainability

| Model | NPAR | CMIN | DF | P | CMIN/DF |
|---------------|------|--------|----|------|---------|
| Default model | 16 | 45.280 | 12 | .000 | 3.773 |

RMR, GFI

| Model | RMR | GFI | AGFI | PGFI |
|---------------|------|------|------|------|
| Default model | .094 | .903 | .774 | .387 |

Baseline Comparisons

| Model | NFI Delta1 | RFI rho1 | IFI Delta2 | TLI rho2 | CFI |
|---------------|---------------|-------------|---------------|-------------|------|
| Default model | .940 | .894 | .955 | .920 | .954 |

Testing the sustainability variable (SU) through the AMOS program

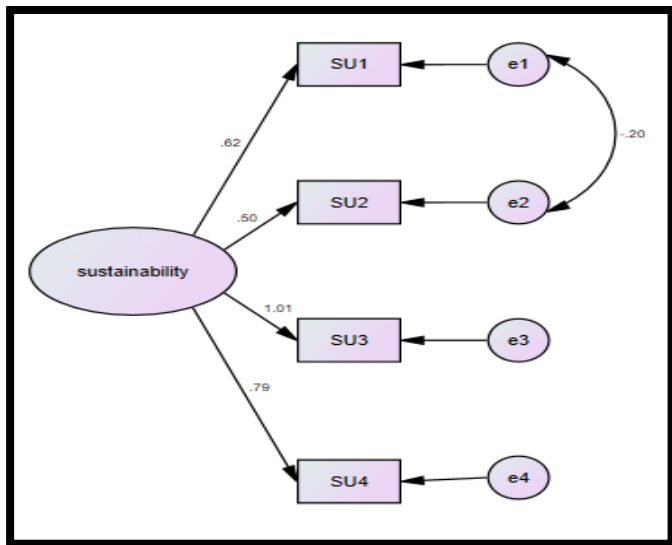


FIGURE 3: The Measurement Model For Measuring sustainability

The model shown below represents the relationship and influence between the two variables, which was reached through the Amos statistical program using structural equations. The results of running the data show the positive effect of each indicator on each internal variable, as it indicated that the results are positive through what was achieved from testing the variables, as it becomes clear The CFI value (.95) is greater than .90, and therefore the result is considered acceptable and good, as well as the IFI value (.95) and IFI (.90), all of which indicate acceptable and good ratios, and this is a clear concern to support this research. This form is considered acceptable as it states that the form is acceptable to both parties. Based on the results shown below that appeared through AMOS, it was found that strategic leadership (LS) has a significant positive impact on sustainability (SU) for workers in the health sector. This can be seen through the path coefficients with a positive sign obtained for the value shown below, and a probability of significance (P) of 0.000 is obtained, which is smaller than the specified significance level of 0.05. Hence, strategic leadership (LS) has a significant impact in a positive direction on sustainability (SU).

IV. RESULTS

Health institutions in their various departments are considered the vital artery for the continuity of life, as they contribute effectively to providing all health services to citizens in line with the requirements of life through strategic leadership, which organizes the work of these institutions by developing strategic plans. The aim of this study is to measure the extent of the impact and relationship between strategic leadership and development. The problem of the study included knowing the main role that strategic leadership contributes to in developing the work of health institutions and their sustainability in a way that provides citizens with services. A random sample of workers in health institutions was taken and data was collected by using the questionnaire form as a tool for all data, and the size of the valid sample was For the analysis (132), the SPSS program was used to enter the data and the SEM program Structural Equation Model (AMOS) for the purpose of analyzing it and measuring the relationship and influence between the variables referred to above. The results were reached that there is a strong relationship with significant statistical significance between the two variables, strategic leadership and sustainable development, in addition to This is the impact of strategic leadership on sustainable development, a positive emotional impact.

V. CONCLUSIONS

Health institutions and their various departments are considered one of the important sectors that other similar institutions depend on, as they are considered the vital artery for the continuity of life, as they contribute effectively to providing all health services to citizens in a manner consistent with the requirements of life. In this study, two main variables were chosen: strategic leadership and sustainable development, where the studies focused. Modern study of sustainability in its various forms because of its major role in preserving the nature of work. Reliance was placed on the use of a quantitative model in all and analysis of data. The data was collected through the use of a questionnaire form as a tool for all data. 155 questionnaires were distributed to a random sample that was chosen from Workers in the health sector, the size of the valid sample for analysis was (132). The SPSS program was used to enter the data and the SEM program Structural Equation Model (AMOS) for the purpose of analyzing it and measuring the relationship and influence between the variables referred to above. The results were concluded that there is a strong, significant relationship. Significant statistics between the two variables: strategic leadership and sustainable development. In addition to that, the impact of strategic leadership on sustainable development has a positive, significant impact.

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