

# The Role of Continuous Improvement in Increasing the Effectiveness of the Organization: An exploratory study of the opinions of a sample of the teaching staff of the College of Administration and Economics / University of Qadisiyah

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## Abstract

The research aims to find the compatibility and the role that continuous improvement brings in the effectiveness of organizations and their different types, through a survey of the opinions of an intentional sample from the teaching staff in the College of Administration and Economics of the University of Qadisiyah, so the importance of research comes from the role that continuous improvement plays for all the corridors of the organization that require continuous improvement, to solve all the work problems represented in the role of continuous improvement in the effectiveness of the organization, in order for the organization to achieve the highest level of organizational effectiveness, that is, the ability to achieve its goals to be achieved, since effectiveness is an important matter in the life of organizations as a result of the great development and intense competition, many researchers and interested people have sought to find a theory adopted by organizations in order to be effective, but the subject of interaction is based on the discretion of the organizations themselves, so this research contributed to facing that with its variables. Investing in advanced technology with modernity that accompanies what the era demands in making the necessary improvements helps in finding that level of effectiveness that the world today denounces, the research rely on a set of methods in order to test the correlations and influence of the research assumptions that were formulated to verify the validity of the research scheme using the case study methodology (case study) by adopting the statistical program SPSS. The research reached a set of results that were produced by the intellectual and applied aspects that the researchers dealt with. That the topic of continuous improvement is one of the important topics for organizations of various types has far-reaching implications if directed properly to improve the effectiveness of the educational process.

**key words:** Continuous improvement - organizational effectiveness - organizational efficiency - job satisfaction - sustainability - academic growth.



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## Introduction

The threat situation for various organizations has become continuous starting from the last decade of the last century in light of a set of accelerating technological changes and an increase in the state of uncertainty and environmental complexity, whose course has transcended the international boundaries in which organizations exercise their various activities, which called for the strengthening and provision of those tools that give the organization the ability of responding and adapting to new situations in order to be able to achieve excellence, because the level of performance required for its survival is achieved in the era of globalization, knowledge and global competition, so a continuous improvement strategy that takes in consideration attention is the operational strategic direction of organizational performance, this requires the management of the educational institution to provide Infrastructure, hardware, laboratories, software, secure internet connection and use of display screens, which encourages students to communicate through their use of these technologies and training teaching staff on them to serve the educational process, and this will not be achieved unless the educational institution has the foundations for sustainable competitiveness represented in education, research and development and an environment of innovation and advanced infrastructure.

The research problem can be formulated through the following questions:

- 1- How much attention has been given by our organizations to the concepts of continuous improvement, and to the effective role they play for the various operations of the organization?
- 2- Do our organizations have the capabilities to adopt modern technological mechanisms that contribute to increasing and improving the productivity and making them more efficient and effective in a way that contributes to achieving organizational excellence?
- 3- Knowing how far or close our organizations are to keeping pace with the most important developments and what has a significant impact on increasing or reducing the amount of the existing gap from the ideal situation that it seeks to achieve?

The importance of the research in light of the significant changes and challenges facing the Iraqi environment is highlighted by the following:

- 1- Determining the reality of our organizations to the extent of interest in the search variables to improve their effectiveness with the least possible loss and loss.
- 2- The determination of the technological capabilities available to the organization is necessary to achieve the possibility of facing changes and making improvements wherever necessary.
- 3- Determine the effective role that the search variables find within the reality of the corridors of our organizations, in obtaining a position of prominence

The current research seeks to achieve the following goals: -

- 1- Helping the organization in activating the appropriate entry point for improvement with the aim of increasing opportunities for it to achieve excellence.
- 2- The researchers hope to know the extent to which the organization understands and understands the two variables of the research, and is it possible to enhance its application.
- 3- Determine the relative importance of the dimensions of the search variables and indicate the importance of each of them to the research organization.

- 4- Generating persuasion with the research organization that coming towards taking improvement measures in all its aspects, the advantages that the company gets are the justification for the high costs that it will spend.
- 5- Knowing the problems and obstacles that prevent the possibility of achieving some or all of the research variables.

The researchers adopted the default research scheme to show the relationship between the two variables as follows:

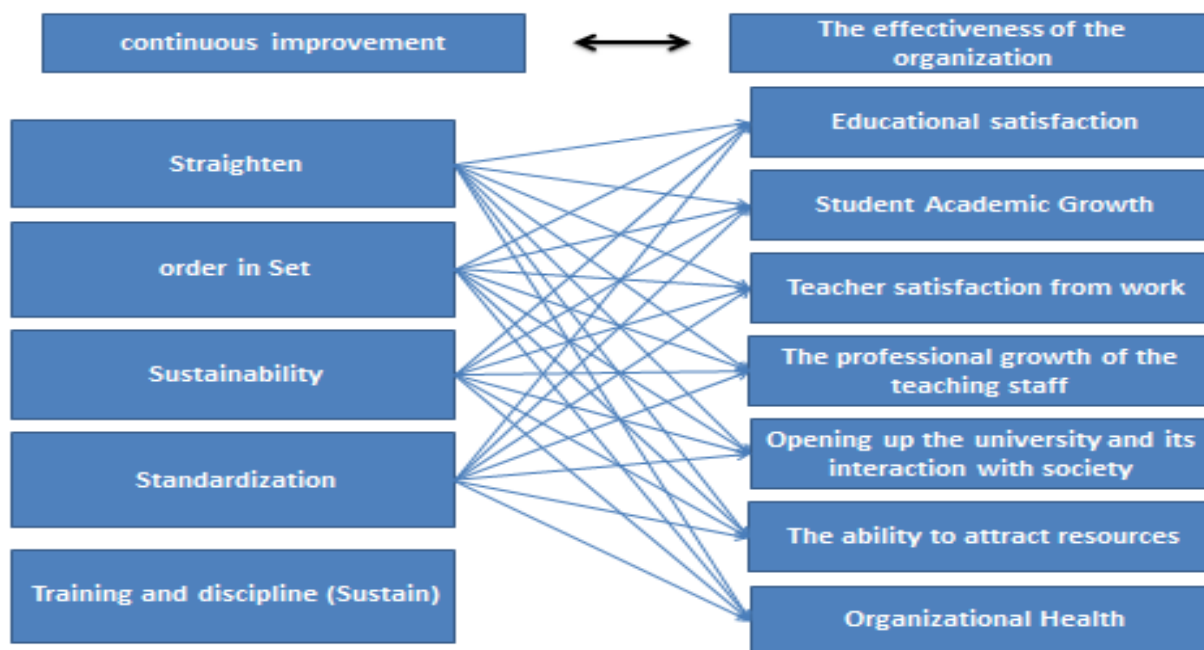


Figure (1)

### The default research scheme

Source: prepared by researchers

As the research is based on two basic hypotheses:

**The first main hypothesis:** There is a statistically significant correlation relationship to the dimensions of continuous improvement and organizational effectiveness.

**The second main hypothesis:** There is an impact relationship for the dimensions of continuous improvement and organizational effectiveness.

The questionnaire was used as a research tool that was specifically designed to identify the reality of the application of continuous improvement and its impact on organizational effectiveness in the College of Administration and Economics / University of Qadisiyah, and the questionnaire consists of the following:

- 1- Continuous improvement variable.
- 2- The variable of organizational effectiveness.

The results were calculated by the SPSS statistical analysis program, and the following indicators were used to determine the results of the analysis:

- 1- Percentage: For the purpose of determining the percentage of answers to research variables.

- 2- Repetition: For the purpose of summarizing the number of answers to search variables
- 3- Arithmetic mean: to determine the answer about the paragraphs and to know the level of the variables.
- 4- Standard deviation: to know the level of dispersion of the sample responses around the mean.
- 5- Correlation: To know the type and direction of the relationship between continuous improvement and organizational effectiveness.
- 6- Regression: To know the effect of the characteristics of continuous improvement on organizational effectiveness.

### **The first section - continuous improvement (CI)**

At the present time, organizations live in a changing world, as the customer desires the availability of better products, higher quality, and shorter delivery times to achieve his requirements and desires, so most organizations rely on continuous improvement (CI) to reach their goals. Adopting the application of the concept of continuous improvement (CI) in organizations is one of the strategies that it aims to provide high-quality outputs that have a competitive advantage that enables them to address the obstacles they face, and this is done through the introduction of continuous development and the provision of an innovative environment and appropriate infrastructure as well as the use of modern technology and the use of information and communication technology in the service of the organization as it contributes to improving the interactive relationship between the worker and the work environment, as the price is determined by the organization previously, according to the following formula:

**Price = cost + profit ..... equation (1)**

As for the variables of the current time, the price is determined by the customer as in the following formula:

**Profit = sale price - cost ..... equation (2)**

The manufacturing organization has to understand that the cost is not only a group (materials, salaries, electricity .... etc.) but that there are hidden costs that an organization must try to get rid of are costs (poor quality, continuous holidays, low efficiency, scrap, overtime .... etc.) as CI works to get rid of it constantly.

#### **1- Concept of continuous improvement**

The continuous improvement (CI) or the so-called Japanese concept Kaizen is an important part of the history of the human era looking for a better way to perform their jobs or improve their tools, and the continuous improvement in the scope of the business organization environment is, the ability to involve all members of the organization in every improvement process, whatever its size is as a continuous and progressive basis in which they choose the ways and solutions to their problems and carry out improvement processes themselves, being more practicing and real experts in their direct work environment. Work, if it is not continuous, is not considered or continuous improvement. Therefore, some CI programs appeared in the nineteenth century devoted to industrial manufacturing, as they worked to provide many improvements to industrial processes according to analyzing and solving manufacturing problems (production) using scientific methods as they focus on the continuous pursuit of

improving the methods of performance in the organization as it certainly does not apply to the product (Good or service), but also to improve operations by defining the foundations for best practices and creating a high feeling among workers that they own the operations (Mohsen and Al-Najjar, 2012: 566-567), so the evidence was built that there is no clear definition of (CI), some of them are called it (a process that aims to improve the processes, material flows and products in order to control production costs and quality), (a methodology that aims to eliminate waste in all the organization's systems and operations), (a culture that includes a set of practices, such as the sequence of steps established to implement projects and a set of tools and techniques commonly used to implement these projects (Jose, 2014: 120), or it is (a philosophy that includes a package of measures that helps the organization improve what it does (Ravinder, 2019: 453).

## **2- Approaches to continuous improvement**

The methodology (CI) has taken many approaches (TQM, Six Sigma, CMM, ISO, and Lean), the purpose of which is to improve in various aspects of the organization.

Industrial and service organizations, for the purpose of achieving their goals of survival and growth, and adopting them, adopt one or more entries (CI) for the purpose of achieving competitiveness in the field of cost and quality and the ability to provide goods and services at the appropriate time and time (Stephen & Ton 2018,2). So, the continuous improvement in its reality is an application of the steps involved in the Deming wheel or PDCA cycle: Plan, Do, Execute, Check, and take the appropriate action, which developed by Walter Shwhart as a circular model for continuous improvement emphasizes the continuous nature of the process of continuous improvement that focuses on aspects of operations that do not achieve added value (for a good or service) such as parts inspection activities to search for quality defects or reduce activities that do not add value (Mohsen and Al Najjar, 2012: 566-576).

The continuous improvement (CI) involves five elements called (5S), and they are as follows: (Rahman and Ahmed, 2013: 232-233).

- a. Straighten: It means emphasizing the necessary activities when needed and eliminating unnecessary activities, i.e. excluding traditional methods that do not add value in the organization and using modern methods.
- b. Order in Set: It means doing things in their right places, i.e. arranging operational means of work.
- c. Sustainability: It means how to conserve resources for future generations.
- d. Standardization: Ensure that equipment and machinery remain in good working condition to avoid frequent holidays, i.e. follow-up and medicinal maintenance of all operations of the organization.
- e. Training and discipline (Sustain): Working with all of the above by employees in the organization and taking it as part of the daily behaviors of working individuals. (Al-Saegh and Al-Fatlawi, 2015: 250-251).

## **The second section - the effectiveness of the organization**

With the knowledge of all researchers, specialists and followers of management science that the only constant is change and renewal, and because of the rapid change and significant development witnessed by organizations for their survival

in the business world, and the field of education and educational organizations has the largest share in light of this development witnessed by universities in various parts of the world, and embodies researchers for linking the relationship between the continuous improvement of the organization, on the one hand, and the effectiveness of the organization, on the other hand. Therefore, we must discuss the effectiveness in terms of concept, importance, types and approaches to study as well as the measurement indicators that distinguish it.

### **1- Effectiveness concept:**

The term EFFECTIVENESS is derived from the term EFFECT, and is used in cause-and-effect relationships.

Richard L. Daft explained it by saying: (Effectiveness is one of the important indicators to measure the extent to which the organization achieves its goals according to its adaptation to the working environment in it, in terms of using the resources available to it) (Daft: 2010,67. Based on the above, we can collect definitions with the definition of Ibrahim and Bilal (is the institution's ability to achieve the goals for which it was established and the results to be reached, as well as its ability to maintain a system of effectiveness of activities, internal processes and procedures for performing the required actions and its ability to adapt, use and comply with all private means in the internal and external environment and the extent of its ability to achieve the minimum degree of satisfaction for the group's strategic aspirations so that these provisions are a basis for the purpose of taking decisions with a view to The events of organizational change and development (Ibrahim and Bilal, 2014: 5), while the Muratbekole Pixery sees it as a qualitative category related to the quantity of the development of the organization, which reflects the improvement processes that occur in all of its structures and elements, and organizational effectiveness is manifested through the level of motivation of its employees, and the image of the organization among consumers, in the light of the goods and services it provides, and its reputation as well. (Muratbekuly: 2019,55).

### **2- Entrances or approaches to measure organizational effectiveness:**

It is not possible to define a single method for accurately measuring organizational effectiveness, because each individual entity will have a different list of criteria and priorities that should be evaluated and considered through self-evaluation.

So, understanding the level of organizational effectiveness of a company is important for several reasons: it serves as a check-in to see how the internal procedures meet an initial vision, provides investors, donors or employees with an idea of the company's strengths, and highlights areas of inefficiency that could be the focus of continuous improvement.

It is noted that in many cases the success or failure of the company cannot be measured by financial performance. A company that currently makes profits may be ineffective if it fails to meet the basic values to demonstrate its mission, attract and retain talented and skilled workers, and plan for the next generation of projects (Pedraza: 2014).

Organizational Effectiveness measures business performance across a wide range of criteria. Financial performance, long-term planning, internal structure, and commitment to core values may be critical elements in understanding organizational effectiveness.

To get a clear idea of an organization's effectiveness, it is important to have a clear list of criteria to evaluate, and neither organization will have the same criteria list, which is why many nonprofit and nonprofit groups measure effectiveness through self-evaluation. Often the employees and employees of the company are in the best position to accurately understand the needs, objectives and performance of a company, and self-assessment of effectiveness can help company employees to reconnect to the primary mission of the organization. By working creatively to devise new business strategies for areas of inefficiency, workers may develop a stronger sense of loyalty and dedication to work.

Al-Anazi has summarized three important approaches in evaluating and measuring effectiveness, as the organization is effective when it faces three important challenges seriously and carefully, namely (Al-Anzi: 2015, 415):

- a. Securing rare and valuable skills and resources from outside the organization, and this is known as the entrance of external resources or oversight.
- b. Coordination of resources creatively and creatively with the skills of workers to create the facility and adapt to changing customer needs and requests, and this is known as the entrance to internal systems or creativity.
- c. Transforming skills and resources efficiently into finished goods and distinguished services, and this is known as technical input or efficiency.

The researchers have relied on the following criteria in measuring effectiveness and showing the effect of continuous improvement on their rate of increase, and among the criteria are the following:

a- Educational satisfaction: It is defined as the positive path that achieves the actual orientation of the student, as he realizes that it is appropriate to the capabilities, inclinations, personality traits and values he enjoys, as he satisfies his desirable needs, including current and future, social, psychological, professional and economic.

b - Student Academic Growth: The college's contribution to the productivity growth of each student at a certain level and isolation of this participation from all academic factors that affect this productivity such as the student's previous accomplishments, and the special and distinctive characteristics of him, his family and his environment.

c- Teacher satisfaction from work: It is defined as an internal response to the teacher that gives rise to a feeling of satisfaction with his specialization, and this response has its cognitive, emotional, and behavioral components, which are derived from the previous circumstances, experiences, and conditions of the existing educational position, and this response makes the teacher in a state of continuous preparation to continue working in the major and adhering to all its requirements.

d- The professional growth of the teaching staff: It is indulging in continuous efforts for self-development and professional growth, supporting the professional growth of others, and undertaking positive professional behavior and ethics that promote effective practices.

- e- Opening up the university and its interaction with society: it helps in arriving at new and unfamiliar methods of producing knowledge and applying it, and certainly seeing the problems in reality, as all the factors affecting them interact, differs from its vision inside the college.
- f- The ability to attract resources: The ability to obtain human, technological, information and material human resources easily and conveniently.
- g- Organizational Health: It is the ability of the organization to work effectively, or the organization's ability to adapt to the environment and find harmony among its members in order to achieve the goals of the organization.

### The third section - presenting and analyzing results and testing assumptions

#### 1- Presentation and analysis of the results of the components of the continuous improvement variable (independent variable X)

Table (1)

Frequencies, Percentage, Arithmetic Mean, and Standard deviations for the answers of the research sample with respect to the Straighten axis

| Standard deviation | Arithmetic mean | Strongly disagree I                 |   | Disagree I |   | Neutral |   | I agree |   | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|---|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F | %                | F |    |
| 0.6                | 4.3             | 3.333                               | 0 | 3.333      | 2 | 6.66    | 2 | 23.333  | 7 | 30               | 9 | 1  |
| 0.9                | 3.5             | 6.66                                | 2 | 6.66       | 2 | 10      | 3 | 26.66   | 8 | 16.666           | 5 | 2  |
| 1.077              | 3.8             | 0                                   | 0 | 13.333     | 4 | 16.666  | 5 | 16.666  | 5 | 20               | 6 | 3  |
| 1.6                | 3.2             | 13.333                              | 4 | 13.333     | 4 | 0       | 0 | 26.66   | 8 | 13.333           | 4 | 4  |
| 0.384              | 3.7             | mean and general standard deviation |   |            |   |         |   |         |   |                  |   |    |

It is clear from Table (1) that the mean for the first axis (Straighten) was (3.7), which is higher than the hypothetical mean (3) and with a standard deviation (0.384). Paragraph (1) got the largest mean reached (4.3) and a standard deviation (0.6). Paragraph (4) to the effect that (the organization possesses tanks of knowledge to make the necessary improvements) obtained the lowest mean (3.2) and with a standard deviation (1.6).

Table (2)

Frequencies, percentages, arithmetic mean, and standard deviations of the responses of the research sample in relation to the axis of organization or regulation

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |   | I Strongly agree |    | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|---|------------------|----|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F | %                | F  |    |
| 0.8                | 4.35            | 0                                   | 0 | 0          | 0 | 16.66   | 5 | 16.66   | 5 | 33.333           | 10 | 1  |
| 0.8                | 3.8             | 3.333                               | 1 | 6.66       | 2 | 16.66   | 5 | 30      | 9 | 10               | 3  | 2  |
| 0.9                | 3.5             | 3.333                               | 1 | 10         | 3 | 23.333  | 7 | 20      | 6 | 10               | 3  | 3  |
| 1.07               | 3.55            | 0                                   | 0 | 16.66      | 5 | 20      | 6 | 13.33   | 4 | 16.66            | 5  | 4  |
| 0.128              | 3.8             | mean and general standard deviation |   |            |   |         |   |         |   |                  |    |    |

It is clear from Table (2) that the mean for the second axis (regulation) was (3.8), which is higher than the hypothetical mean (3) and with a standard deviation (0.128). Paragraph (1) got the highest averages of (4.35) and a standard deviation (0.8), while paragraph (3) got the lowest mean (3.5) with a standard deviation (0.9).



Table (3)

Frequencies, percentages, averages, and standard deviations of responses from the research sample in relation to the sustainability axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 1.04               | 3.75            | 3.333                               | 0 | 13.333     | 4 | 6.66    | 6 | 16.66   | 5  | 16.66            | 5 | 1  |
| 0.8                | 3.9             | 0                                   | 1 | 3.333      | 1 | 23.333  | 7 | 20      | 6  | 16.66            | 5 | 2  |
| 1.2                | 3.7             | 0                                   | 0 | 0          | 0 | 20      | 6 | 33.333  | 10 | 13.333           | 4 | 3  |
| 0.7                | 3.95            | 0                                   | 0 | 10         | 3 | 16.66   | 5 | 30      | 9  | 10               | 3 | 4  |
| 0.120              | 3.8             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (3) that the mean of the third axis (sustainability) was (3.8), which is higher than the hypothetical mean (3) and with a standard deviation (0.120). Paragraph (4) got the highest averages of (3.95) and a standard deviation (0.7), while paragraph (3) got the lowest mean (3.7) with a standard deviation (1.2).

Table (4)

Frequencies, percentages, means, and standard deviations of the responses of the research sample with respect to the standardization axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 0.8                | 3.95            | 0                                   | 0 | 6.66       | 2 | 13.333  | 4 | 36.66   | 11 | 10               | 3 | 1  |
| 1.1                | 3.7             | 3.333                               | 1 | 3.333      | 1 | 16.66   | 5 | 26.66   | 8  | 16.66            | 5 | 2  |
| 0.8                | 3.6             | 0                                   | 0 | 10         | 3 | 20      | 6 | 30      | 9  | 6.66             | 2 | 3  |
| 1.4                | 3.3             | 3.333                               | 1 | 16.66      | 5 | 10      | 3 | 23.333  | 7  | 13.333           | 4 | 4  |
| 0.250              | 3.6             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (4) that the mean for the fourth axis (standard) was (3.6), which is higher than the hypothetical mean (3) and with a standard deviation (0.250). Paragraph (1) got the highest averages of (3.95) and a standard deviation (0.8). Paragraph (4) got the lowest mean (3.3) with a standard deviation (1.8).

Table (5)

Frequencies, percentages, arithmetic mean, and standard deviations of the responses of the research sample with respect to the training and discipline axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 0.8                | 4.15            | 0                                   | 0 | 3.333      | 1 | 16.66   | 5 | 23.333  | 7  | 23.333           | 7 | 1  |
| 0.7                | 4.1             | 0                                   | 0 | 6.66       | 2 | 16.66   | 5 | 33.333  | 10 | 10               | 3 | 2  |
| 1.00               | 3.7             | 0                                   | 0 | 10         | 3 | 16.66   | 5 | 20      | 6  | 20               | 6 | 3  |
| 1.3                | 3.7             | 3.333                               | 1 | 10         | 3 | 13.333  | 4 | 16.66   | 5  | 23.333           | 7 | 4  |
| 0.250              | 3.9             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

Table No. (5) shows that the mean for the fifth axis (training and discipline) was (3.9), which is higher than the hypothetical mean (3) and with a standard deviation (0.250). Paragraph (1) got the highest averages of (4.15) and a standard deviation (0.8). As for paragraph (3), it got the lowest mean (3.7) with a standard deviation (1.00).

## 2- Presenting and analyzing the results and components of the organizational effectiveness variable (dependent variable Y).

Table (6)

Frequencies, percentages, averages, and standard deviations of the responses of the research sample with respect to the educational satisfaction axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 1.1                | 3.95            | 3.333                               | 1 | 3.333      | 1 | 13.333  | 4 | 26.66   | 8  | 20               | 6 | 1  |
| 0.9                | 3.50            | 0                                   | 0 | 10         | 3 | 6.66    | 2 | 33.333  | 10 | 16.66            | 5 | 2  |
| 1.3                | 3.65            | 6.66                                | 2 | 10         | 3 | 13.333  | 4 | 23.333  | 7  | 13.333           | 4 | 3  |
| 1.3                | 3.45            | 10                                  | 3 | 26.66      | 8 | 23.333  | 7 | 3.333   | 1  | 0                | 0 | 4  |
| 0.320              | 3.6             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (6) that the mean for the first axis (educational satisfaction) was (3.6), which is higher than the hypothetical mean (3) and with a standard deviation (0.320). Paragraph (1) got the highest averages of (3.95) and a standard deviation (1.1). As for paragraph (4), it got the lowest mean (3.45) and a standard deviation (1.3).

Table (7)

Frequencies, percentages, means, and standard deviations of the answers of the research sample in relation to the student's academic growth axis.

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 1.1                | 3.95            | 3.333                               | 1 | 10         | 3 | 10      | 3 | 30      | 9  | 13.333           | 4 | 1  |
| 0.9                | 3.5             | 6.66                                | 2 | 6.66       | 2 | 10      | 3 | 36.66   | 11 | 6.66             | 2 | 2  |
| 1.3                | 3.65            | 3.333                               | 1 | 13.333     | 4 | 13.333  | 4 | 16.66   | 5  | 20               | 6 | 3  |
| 1.2                | 3.45            | 6.66                                | 2 | 6.66       | 2 | 20      | 6 | 10      | 3  | 23.333           | 7 | 4  |
| 0.225              | 3.6             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (7) that the mean of the second axis (the academic growth of the student) was (3.6), which is higher than the hypothetical mean (3) and a standard deviation (0.225). Paragraph (1) got the highest averages of (3.95) and a standard deviation (1.1). As for paragraph (4), it got the lowest mean (3.45) with a standard deviation (1.2).

Table (8)

Frequencies, Percentages, Arithmetic Mean, and Standard Deviations of the answers of the research sample in relation to the teacher satisfaction axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 1.2                | 3.65            | 6.66                                | 2 | 6.66       | 2 | 16.66   | 5 | 16.66   | 5  | 20               | 6 | 1  |
| 1.1                | 3.35            | 3.333                               | 1 | 13.333     | 4 | 6.66    | 2 | 33.333  | 10 | 10               | 3 | 2  |
| 1.0                | 3.85            | 6.66                                | 2 | 3.333      | 1 | 6.66    | 2 | 33.333  | 10 | 16.66            | 5 | 3  |
| 1.2                | 3.65            | 6.66                                | 2 | 0          | 0 | 10      | 3 | 33.333  | 10 | 16.66            | 5 | 4  |
| 0.214              | 3.6             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (8) that the mean of the third axis (job satisfaction) was (3.6) which is higher than the hypothetical mean (3) and with a standard deviation (0.214), and paragraph (3) got the highest averages of (3.85) and a standard deviation (1.0). As for paragraph (2), it got the lowest mean (3.35) and a standard deviation (1.1).

Table (9)

Frequencies, Percentages, Arithmetic Mean, and Standard deviations of the answers of the research sample with regard to the axis of the professional growth of the teaching staff

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 1.2                | 3.85            | 6.66                                | 2 | 3.333      | 1 | 10      | 3 | 20      | 8  | 20               | 6 | 1  |
| 0.9                | 3.85            | 6.66                                | 2 | 6.66       | 2 | 6.66    | 2 | 33.333  | 10 | 13.333           | 4 | 2  |
| 1.1                | 3.45            | 3.333                               | 1 | 10         | 3 | 10      | 3 | 30      | 9  | 13.333           | 4 | 3  |
| 1.0                | 3.8             | 3.333                               | 1 | 10         | 3 | 10      | 3 | 26.66   | 8  | 16.66            | 5 | 4  |
| 0.104              | 3.7             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (9) that the arithmetic mean of the fourth axis (the professional growth of the teaching staff) reached (3.7) which is higher than the hypothetical mean (3) and with a standard deviation (0.104), and paragraph (1) got the highest averages of (3.85) and a standard deviation (1.2). As for the private paragraph (3), it got the lowest mean (3.45) with a standard deviation (1.1).

Table (10)

Frequencies, percentages, arithmetic mean, and standard deviations of the answers of the research sample with regard to the axis of the university's openness and its interaction with society

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |   | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|---|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F | %                | F |    |
| 1.5                | 3.8             | 10                                  | 3 | 6.66       | 2 | 6.66    | 2 | 13.333  | 4 | 30               | 9 | 1  |
| 0.9                | 3.95            | 6.66                                | 2 | 3.333      | 1 | 10      | 3 | 26.66   | 8 | 20               | 6 | 2  |
| 1.2                | 3.6             | 6.66                                | 2 | 6.66       | 2 | 16.66   | 5 | 20      | 6 | 16.66            | 5 | 3  |
| 1.2                | 3.7             | 6.66                                | 2 | 10         | 3 | 10      | 3 | 16.66   | 5 | 23.333           | 7 | 4  |
| 0.122              | 3.8             | mean and general standard deviation |   |            |   |         |   |         |   |                  |   |    |

It is clear from Table (10) that the mean of the fifth axis (the openness of the university and its interaction with society) was (3.8), which is higher than the hypothetical mean (3) and with a standard deviation (0.122), and paragraph (2) got the highest averages of (3.95) and a standard deviation (0.9). As for paragraph (3), it got the lowest mean (3.6) with a standard deviation (1.2).

Table (11)

Frequencies, Percentages, Arithmetic Mean, and Standard deviations of the answers of the research sample with respect to the ability to attract resources axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |    | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|----|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F  | %                | F |    |
| 1.2                | 3.9             | 6.66                                | 2 | 6.66       | 2 | 6.66    | 2 | 26.66   | 8  | 20               | 6 | 1  |
| 1.2                | 3.55            | 10                                  | 3 | 3.333      | 1 | 6.66    | 2 | 33.333  | 10 | 13.333           | 4 | 2  |
| 1.0                | 3.85            | 3.333                               | 1 | 3.333      | 1 | 3.333   | 1 | 40      | 12 | 16.66            | 5 | 3  |
| 1.0                | 3.8             | 6.66                                | 2 | 6.66       | 2 | 10      | 3 | 26.66   | 8  | 16.66            | 5 | 4  |
| 0.110              | 3.8             | mean and general standard deviation |   |            |   |         |   |         |    |                  |   |    |

It is clear from Table (11) that the mean for the sixth axis (ability to attract resources) was (3.8), which is higher than the hypothetical mean (3) and with a standard deviation (0.110), and paragraph (1) got the highest averages of (3.9) and a standard deviation (1.2). As for the private paragraph (2), it got the lowest mean (3.55) with a standard deviation (1.2).

Table (12)

Frequencies, percentages, averages, and standard deviations of the sample responses for the organizational health axis

| Standard deviation | Arithmetic mean | Strongly I disagree                 |   | Disagree I |   | Neutral |   | I agree |   | I Strongly agree |   | No |
|--------------------|-----------------|-------------------------------------|---|------------|---|---------|---|---------|---|------------------|---|----|
|                    |                 | %                                   | F | %          | F | %       | F | %       | F | %                | F |    |
| 1.2                | 3.85            | 10                                  | 3 | 0          | 0 | 16.66   | 5 | 16.66   | 5 | 23.333           | 7 | 1  |
| 1.1                | 3.65            | 3.333                               | 1 | 10         | 3 | 16.66   | 5 | 16.66   | 5 | 20               | 6 | 2  |
| 1.0                | 3.75            | 3.333                               | 1 | 0          | 0 | 16.66   | 5 | 23.333  | 7 | 23.333           | 7 | 3  |
| 1.1                | 3.75            | 13.333                              | 4 | 3.333      | 1 | 13.333  | 4 | 20      | 6 | 16.66            | 5 | 4  |
| 0.032              | 3.7             | mean and general standard deviation |   |            |   |         |   |         |   |                  |   |    |

It is clear from Table (12) that the mean of the seventh axis (organizational health) was (3.7) which is higher than the hypothetical mean (3) and with a standard deviation (0.032). Paragraph (1) got the highest averages of (3.85) and a standard deviation (1.2). As for the private paragraph (2), it got the lowest mean (3.65) with a standard deviation (1.1).

### 3- Test the research hypotheses

For the purpose of proving the main research hypotheses, table (13) shows the following:

- Prove the first main hypothesis, which states that there is a correlation between the continuous improvement variable and the organizational effectiveness variable:

Table (13)

Correlation relationships between independent variable (continuous improvement) and dependent variable (organizational effectiveness)

| Organizational effectiveness | continuous improvement  |
|------------------------------|-------------------------|
| * 80%                        | Straighten              |
| * 84%                        | regulation              |
| * 67%                        | sustainability          |
| * 74%                        | Standardization         |
| * 80%                        | training and discipline |

\* significant at the level of significance (0.05)

From Table No. (13), we note the proof of the research hypothesis that there is a correlation relationship to the dimensions of continuous improvement and organizational effectiveness.

We note the corroboration of the first sub-hypothesis. There is a correlation between liquidation and organizational effectiveness. The correlation coefficient has reached (80%). As for the second sub-hypothesis, there is a significant correlation between regulation and organizational effectiveness, and the correlation coefficient has reached (84%). The third hypothesis is that there is a significant correlation between sustainability and organizational effectiveness, and the correlation coefficient is (67%). The fourth hypothesis is a significant correlation relationship between the normative and organizational effectiveness. The correlation coefficient reached (74%). The fifth hypothesis is that there is a significant correlation between training, discipline and organizational effectiveness. The correlation coefficient has reached (80%). From the above results, it is clear that there is a strong and positive correlation between the two variables.

b. Second hypothesis test: There is an effect relationship between continuous improvement and organizational effectiveness. This hypothesis has been validated using linear regression analysis as shown in Table (14).

Table (14):

| Function   | sig value | T value | regression coefficient | independent variables   | NO |
|--|-----------|---------|------------------------|-------------------------|----|
| Function   | 0.020     | 2.347   | 0.375                  | constant variable       | 1  |
| Function   | 0.032     | 2.175   | 0.155                  | Straighten              | 2  |
| Function   | 0.000     | 3.680   | 0.285                  | regulation              | 3  |
| Function-Non   | 0.101     | 1.653   | 0.111                  | Sustainability          | 4  |
| Function   | 0.001     | 3.481   | 0.218                  | Standardization         | 5  |
| Function   | 0.000     | 4.587   | 0.322                  | Training and Discipline | 6  |
| Coefficient of determination = (0.812) - Adjusted coefficient of determination = (0.803) |           |         |                        |                         |    |

• determination coefficient = (0.812) and the modified determination coefficient = (0.803), meaning that 80% of the change in the level of organizational effectiveness is due to the change in the above mentioned independent variables in Table 14 and the remaining 20% due to the change in other factors.

## Conclusions and recommendations

### First: conclusions

- 1- The results indicated that there is commitment and support by the higher management at the University of Qadisiyah / College of Administration and Economics to apply the methodology of continuous improvement of its belief that it is the essential point for the success of the effectiveness of the organization.
- 2- It is clear from the results that there is a correlation between continuous improvement and organizational effectiveness and that the relationship between them is direct and positive.
- 3- With regard to the educational satisfaction axis, which represents one of the dimensions of organizational effectiveness, paragraph (3) has obtained the lowest mathematical averages (3.45) and a standard deviation (1.3), and this indicates students' dissatisfaction with the educational activities they provide and administration, and the paragraph (the university administration seeks to assume its responsibility towards society through the overall improvement, and hence, reflects negatively on achieving organizational effectiveness).
- 4- With regard to the axis of the ability to attract resources, paragraph (2) obtained the lowest mean (3.55) and a standard deviation (1.2), which indicates that there is not enough improvement in the recruitment of training cadres.

### Second - Recommendations:

With regard to the application of continuous improvement in the College of Administration and Economics / University of Qadisiyah and its reflection on the effectiveness of the organization and according to what was evaluated by the research sample, there are a set of points that must be focused on in order to achieve effectiveness in organizational and educational performance:

- 1- The faculty administration should work on preparing good and accurate new services to meet the needs and expectations of students and the future job market.
- 2- To preserve the diversity and development of educational programs that it offers students.
- 3- Inviting the university administration to enhance the faculty satisfaction by creating an appropriate work environment.
- 4- To provide the university with its various colleges with the necessary technologies (from laboratories, workshops, modern devices, and technological means) that enhance educational opportunities.

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