International Journal of Psychosocial Rehabilitation, Vol. 24, Issue 04, 2020
ISSN: 1475-7192

The Impact of the Elements of Continuous Improvement on the Quality of Work-Life - A Prospective Study in a Number of Small Industrial Organizations in the Province of Nineveh

Dr. Shahla Salem Al –Abbadi and Ahmed Abdul Sattar Talbi

Abstract--- *The study investigates the correlation and impact relationships between elements of continuous improvement and quality of work life in a number small of industrial organizations in Nineveh province thus, a hypothetical model was designed to reflect the nature of the correlations and impact between the variables based on a number of main and sub hypotheses. A questionnaire form was used by the researchers as the main tool for collecting the data besides other tools and the results were analyzed statistically to reach the study's conclusions. In general, the research attempts to answer following the question: what is the nature of the relationship and impact between elements of continuous improvement and quality of work life in the investigated organizations?*

The study reached a set of conclusions including:

1. A significant correlation is found between elements of continuous improvement and quality of work life in the investigated organizations.

2. A significant impact of elements of continuous improvement on quality of work life is found in the investigated organizations.

Based on the conclusions the researchers have presented a set of recommendations consistent with those conclusions and identified their method of implementation.

Keywords--- *Continuous Improvement, Quality of Work Life.*

I. INTRODUCTION

The ultimate goal of industrial organizations is to increase productivity for the purpose of ensuring survival and growth in the business world. At present, many organizations face problems such as refusal due to low quality, high storage levels, high lead time, high production costs, and inability to deal with customers' demands Etc. This is due to the waste that occurs in the work, and can resolve these things through continuous improvement, as it is really a basis for the success of the work of any organization, which would develop a culture of quality for all employees of that organization and in various fields, and can be said that the key to the continuous improvement Is (6s) or six steps through which the organization can move towards the correct application of continuous improvement in work and reflected on improving morale and job satisfaction of employees and thus increase their productivity at work. The current research included the following topics: (The first topic: research methodology, the second topic: the

Dr. Shahla Salem Al –Abbadi, Materials Management Techniques, Mosul Technical Institute, Northern Technical University, Iraq.
Ahmed Abdul Sattar Talbi, Researcher, Business Administration Department, Faculty of Administration and Economics, University of Al Mosul, Iraq.

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

theoretical aspect, the third topic: the field aspect, the fourth topic: conclusions and recommendations)

II. THE FIRST TOPIC: RESEARCH METHODOLOGY

This paper deals with the methodology used in the research according to the following axes:

First: Research Problem: The quality of work-life in the organization is necessary for its success, as it can affect the productivity of employees and performance significantly, so organizations focus on improving the quality of work-life to achieve a high level of satisfaction and commitment of this staff on the one hand. On the other hand, the researchers conducted a preliminary exploratory study in a number of industrial organizations in the province of Nineveh for the period from 14/6/2019 to 18/6/2019 and conducted interviews with some managers and their employees. The work motivated researchers to take up the subject. In general, the problem of research can be identified by asking the following question:

- What is the nature of the correlations and influence between the elements of continuous improvement and the quality of work-life in the research organizations?

Second: Research Objectives: The present research seeks to achieve the following:

1. Provide an overview of the concepts of continuous improvement and quality of work life.

Determine the nature of the correlation and influence relations between the elements of continuous improvement and the quality of work-life in the researched organizations.

Third: the default search map: Figure (1) reflects the default search map

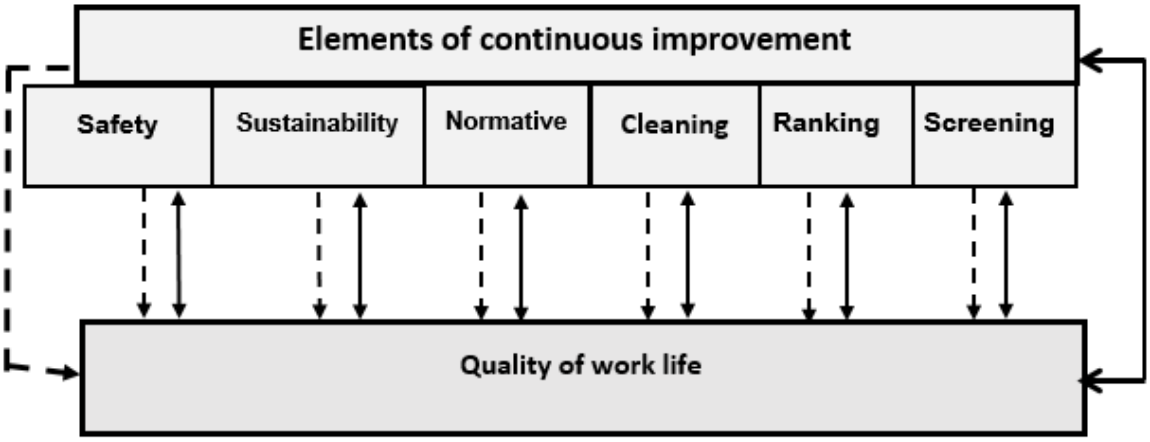

Figure 1: The Default Search Map

Source prepared by researchers

Fourth: Research Hypotheses

The First Main Hypothesis: There is a significant correlation between the elements of continuous improvement combined and the quality of work-life in the researched organizations. The following sub-hypothesis emerged: There is a significant correlation between each element of continuous improvement individually and the quality of work-life in the researched organizations.

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

The Second Main Hypothesis: There is a significant impact of the elements of continuous improvement combined in the quality of work-life in the organizations studied. The following sub-hypothesis emerged: There is a significant significance for each element of continuous improvement individually in the quality of work-life of the researched organizations.

Fifth: Research Methodology: The researchers relied on the descriptive and analytical approaches in describing the society and the sample of the research, as well as studying and analyzing the correlation and influence relationships between the variables of the research to reach conclusions and submit proposals and mechanisms for their implementation.

Sixth: Limits of Research:

1. Spatial Limits: The research was limited to a group of small organizations in the province of Nineveh (Al-Jazeera Dairy Factory Ltd., National Dairy Production Factory, Al-Rayyan Dairy Production Factory Ltd., Rashi Al-Hamdania Factory, Najjar Al-Saeed Factory, and Al-Ahliya Factory for Dye Production). These organizations with researchers.

2. Time Limits: The duration of the research was from the beginning of the research and interviews conducted by the researchers, in addition to the distribution of questionnaire forms to the individuals interviewed and received from them until the completion of the research and this period lasted from (14/6/2019) to (5/9/2019).

Seventh: Methods of Collecting Data and Information

Researchers in the collection of data and information that helped them in writing the theoretical and field and access to the results and conclusions of the research on the following methods:

1. Use some of the Arab and foreign sources available on the Internet that are relevant to the subject of research to cover the theoretical side of the research and support the field side of it.

2. Questionnaire Form (1): The researchers used the questionnaire as the main tool for obtaining data and information related to the field. Phrases related to elements of continuous improvement have been prepared based on the opinions and studies of some authors, including Saulnier, 2014, Gautam, et.al. 2014, Warwick &Murgalska, 2017, Veres, et.al. 2018. While statements on the quality of work were prepared based on the views and studies of some writers, including (Razak, et.al. 2016), (Acharya &Siddiq, 2017), (Al-Shawabkeh). &Hijjawi, 2018).

Eighth: The Statistical Methods used

The researchers used the following statistical methods in describing the individuals interviewed and determining the correlation and influence between the research variables in order to extract the results (iterations and percentages, simple and multiple correlation coefficients, R2 coefficient, simple and multiple linear regression, F test, T-test).

Ninth: Resolution Test

To determine the validity of the scale and the resolution of the resolution was used (ALPha-Cronback) The value of the coefficient of the scale mentioned (0.875), a significant value at the level of significance (0.05) this result

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

indicates the strength of the resolution used (Uma, 1992, 76-78).

III. THE SECOND TOPIC: THE THEORETICAL ASPECT

This Topic includes the following Topics

First: Continuous Improvement: It includes the following Paragraphs

The concept of continuous improvement: (Hamid, 2015, 23) pointed out that continuous improvement is the continuous efforts to improve products and processes, and these efforts can seek to make gradual improvements over time or drastic in cooperation with workers in the manufacturing process. (Juma, 2016, 3) stated that it is a system aimed at eliminating waste across all operations and activities in the organization by involving everyone in the organization by making improvements without the need for huge investments. He identified it (Al Baik& Miller, 2016, 5389) as a comprehensive thinking philosophy that includes many techniques and techniques that enable employees to encourage them to constantly rethink the way they do business more efficiently and effectively. García-Alcaraz, et.al. 2017, 16) is described as an administrative philosophy that generates small incremental changes or improvements in the way of working (or business processes). (Abdulmouti, 2018, 2) explained that it is the ability to make a change for the better after analyzing and discussing new ideas. He added (Singh & Singh, 2019, 5) as the planned, systematic and systematic process of continuous, gradual and company-wide change of current practices aimed at improving the performance of the company. Consistent with the above, the researchers believe that continuous improvement is the continuous quest to improve and develop the work carried out by the organization at all levels by adopting the principle of collective participation of employees to increase the value of work done by the organization and reduce waste in which to maximize the productivity of work.

Second: Continuous Improvement Objectives: Continuous improvement aims to achieve the following: (Mora, 2014, 5), (Smith, 2016, 21)

1. Improve information, material flows, and products in order to control the quality and costs of production.
1. Increasing the efficiency of the business and improving its performance.
2. Enhancing the spirit of cooperation and teamwork.
3. Reducing the complexity of the manufacturing process.
4. Reduce production cycle time.
5. Reduce inventory.
6. Increasing serviceability.
7. Increase the satisfaction of employees and customers alike.

Third: The Benefits of Continuous Improvement: Continuous improvement achieves a number of benefits, including (Singh & Singh, 2019, 24).

1. Increase business performance (in terms of reducing waste, preparation time, breakdowns, and lead time).
2. Increasing the “performance of individuals” in the form of improving development by empowering them and involving them in the process of improvement.
3. Improving the quality of work-life of employees, and thus meet the needs of contemporary society.

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

4. Improve product quality.
5. Improve capital utilization.
6. Enhance productive capacity and retain staff.
7. Enhance creativity by focusing on creative investments that consistently solve large numbers of small problems.

Fourth: Elements of Continuous Improvement

Elements of continuous improvement or five steps are part of the rules of the organization of the workplace and seeks to organize every workspace where employees are most efficient, as the organization of workplaces is the cornerstone of the successful implementation of agility in the organization and can be implemented throughout the organization Well organized, highly effective, high quality The result is effective organization of the workplace, reducing waste in the work environment, and improving the quality and safety of the work (Filip&Marascu-Klein, 2015, 1). This technique is based on the assumption that the organization of the workplace is a prerequisite for the production of high-quality products with little or no waste and high productivity (Mlkva, et.al, 2016, 331). (Sari, et.al. 2017, 1) stated that the application of the S5 concept without a safety aspect is useless because safety is the main priority at work. He explained (Sukdeo, 2017, 1667) that the S6 methodology is the gradual expansion of the 5s methodology, and therefore it is a simple technique aimed at achieving a clean, tidy, healthy and comfortable work environment for employees. He added (Migita, et.al, 2018, 1290) that it is a tool used to organize the workplace in order to have a place for everything and for everything to be in place. Regarding the goal of organizing workplaces, Dudbridge (2011, 62) shows that this technology aims at improving work safety, improving work efficiency, improving productivity, as well as creating a sense of ownership among employees (developing their affiliation and increasing their loyalty to the company).

Elements of continuous improvement of Japanese phrases referred to as 5s plus 5s + Safety include agencies (Gautam, et.al. 2014, 274), (Wyrwicka&Murgalska, 2017, 781), (García-Alcaraz, et. al., 2017, 10-11), (Sari, et.al. 2017, 1), (Veres, et.al. 2018, 901)

A. Seiri (Sort) Sorting: Sorting materials according to their use or need, that is, keeping only what is needed and removing unwanted objects. We should not believe that this or that element may be useful in another function or in an unexpected or special situation, so experts recommend that in case of any doubt should eliminate the elements involved.

B. Seiton (Straighten) Arrangement: Arrange the required elements in the work area in an effective manner, as each element should have its place and be easily accessible when it is required. The order follows the classification and organization if the elements are classified but not organized there will be no results. For example, what is most used should be closer, and the heaviest equipment should go down, and the lighter on top.

C. Seiso (Shine) Cleaning: means cleaning the workplace by wiping dust, polishing and even coating machines. This includes not only the work area but all other tools, machinery and equipment to bring it back to as close to new as possible, as well as cleaning work areas and equipment. Seiso also includes designing applications to avoid or at least minimize dirt and make workstations safer. When the work environment is clean, some defects can be

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

identified in a clean place and without any strange odors. It is easier to detect a smoke-smelling fire or a hardware failure due to leaks.

D. Seiketsu (Standardize): Ensure that what has been done in the first three stages has become standardized. Many tools can be used to promote Seiketsu culture, including taking pictures of the work area in ideal conditions. These should be visible from all points as reminders for workers of what the ideal conditions look like in the area in which they work. That define the responsibilities of each employee at work.

E. Shitsuki (Sustain) Sustainability: Ensure discipline in the practice and repeat the first four steps to become part of the culture of the organization, and this is the first step in creating a sustainable culture in the organization. Shinsuke includes periodic monitoring, spot checks, employee empowerment, self-esteem, and respect for others.

F. Safety is a means of maintaining worker and workplace safety and focuses on eliminating risks and creating a safe working environment. Potential risks are easy to identify when the workplace is well organized and clean. A separate "safety survey" should be conducted to identify, identify and deal with hazards, ensure that there is no potential fire ignition cable, safe working equipment, properly functioning fire extinguishers, and clear information on the evacuation route in case of fire. Workers should wear personal protective equipment while working to be safe in the industry. The range of personal protective equipment includes a helmet to protect the head, eye protection goggles, ear protection, safety shoes, hand gloves and so on.

The Second Axis: The Quality of Work-Life

First, the Concept of Quality of Work-life: Indumathr&Kamalraj, 2012, 265 pointed out that the quality of work-life refers to the approach that deals with employees as a resource of the organization rather than costing them, as it is based on the principle that the performance of employees is better when allowed Them to do their own business and contribute to decision-making. (Razak, et.al. 2016, 521) stated that staff satisfaction with a variety of needs through resources, activities, and outcomes resulting from participation in the workplace. He explained (Acharya &Siddiq, 2017, 585) that it is a process by which the organization responds to the needs of employees by developing mechanisms that allow them to participate fully in the decisions that shape their lives at work. (Rekha, 2018, 71) stated that it is a multidimensional structure, consisting of a number of interrelated components such as fair and appropriate rewards, and safe and healthy working conditions that enable an individual to develop and use all his or her abilities. He explained (Osibanjo, et.al. 2019, 419) that it is a concept that includes the physical, technological, psychological and social aspects of work that conform to the principles of health organizations and to ensure the overall well-being of employees towards sustainable organizational performance. He added (Oducado, 2019, 1) that it is the employees' reaction to the work and its basic results in terms of job satisfaction and mental health. Consistent with the above, the researchers believe that the quality of work-life as a management philosophy maximizes the value of individuals in the organization and work to achieve a comfortable working environment for workers and meet their needs, which reflects on increasing their performance and enhance the organizational efficiency of the organization.

Second: Objectives of the Quality of Work-life: The application of the quality of work-life in organizations achieve a number of objectives, including (Srivastava & Kanpur, 2014, 56), (Sumathi&Velmurugum, 2017, 129).

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

1. Improve employee satisfaction.
2. Improve the physical and psychological health of employees, which creates positive feelings towards the work.
3. Increase individual productivity, accountability, and commitment.
4. Improving teamwork and communication.
5. Improving staff morale.
6. Building the image of the company as the best in the recruitment and retention of employees.
7. Improve the management of continuous change.
8. Reduce regulatory pressure.
9. Improving relations inside and outside the job.
10. Improving working conditions.
11. Provide adequate human resources development programs.
12. Enhance workplace learning.
13. Participate in management at all levels in shaping the organization.

Third: the Dimensions of the Quality of Work-life

The main dimensions of the quality of work-life are as follows: (Al-Shawabkeh&Hijjawi, 2018, 149)

1. Administrative Dimension: The administrative dimension is the process by which the organization enables all staff to participate in decision-making. It includes a set of principles that consider people to be able and responsible to make a valuable contribution to maximize the value of the organization. What QWL management should improve such as work-life balance, leadership, quality workshops, and worker participation in management, work environment, and open communication.

2. Structural Dimension: This dimension emphasizes aspects related to the characteristics of mental and physical function and working conditions that affect employee motivation and productivity and can be considered a human resources perspective in QWL, as the position and nature of the job, opportunities, challenges and associated risks, pressure level, career expectations, growth, development, and rewards are factors The main impact on the quality of working life is this on the one hand. On the other hand, QWL can be improved in different ways such as education and training, union involvement, communication with workers.

3. Social Dimension: This dimension reflects the balance between work life and personal life and thus can be seen how employees enjoy freedom in their jobs and work environment, which increases their satisfaction and productivity through commitment.

Chapter Three: Field Side

This topic includes the following topics:

First: A description of the organizations of the study community and the rationale for its selection: A group of small industrial organizations in the province of Nineveh has been selected as a field of current research. For the production of dyes-dyes eligibility). Perhaps the most important justification for the selection of these organizations

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

as a field of study are the following:

1. Clarity of the research variables of most individuals in the researched organizations.
2. These organizations have administrative and technical cadres with appropriate experience and skill in their field of specialization.
3. Managers and employees of the research organizations in cooperation with researchers and assist them in responding to the questionnaire and obtaining the required data and information.

Table 1: Shows a Simplified Description of the Research Organizations:

No	Name of Organization	A Brief Summary of the Organization	The Most Important Products of the Organization
1	Al Jazeera Dairies Factory Ltd.	The factory was established in 1989 and has 80 employees. It aims to activate the private sector and encourage milk producers to deliver it to the factory to produce and supply products to local markets. The plant has two production sites and three distribution outlets, as well as mobile cars for distribution. Note that the laboratory is certified by the Iraqi Standardization and Quality Control Organization.	Local evaluator, free cream, all types of milk "full fat milk / low-fat milk", cheese, and Alshenina, as well as the production of ice cream.
2	National Dairy Production Lab	The factory was established in (2001) and the number of employees (84) and aims to meet the needs of customers dairy products in the province of Nineveh. The factory includes several administrative and production departments, as well as sales centers scattered in the province of Nineveh, and the factory has two production sites and obtained the certificate of standardization and quality control in Iraq in 2002.	All kinds of milk, cheese, cream, inlaid milk, alqimar.
3	Al Rayan Dairy Factory Ltd.	The factory was established in 1990 and has 40 employees. The factory has 5 production lines, two production sites, two distribution branches in Mosul and another in Erbil. The plant is looking to add a new production line to produce ice cream. The factory holds a standardization and quality control certificate in 1994.	Dairy products, cheese, cheese,
4	RashiHamdania Factory	The factory was established in (1972) and the number of workers (12) and the factory was creative in the use of Iraqi sesame after some of the finest types and distribution outlets limited to the sale of the product to shops and customers	All kinds of bribe.
5	Horizon Paints Production Factory	The factory was established in 1997 and has 34 workers. The factory aims to meet the local market need of dyes and offers good quality dyes and competitive prices.	Emulsion fatty pigments, Almlchn pigments

Source: Prepared by researchers based on identifying brochures of the researched organizations.

Second: Description of the respondents: A deliberate sample of individuals who have experience, knowledge and knowledge of the company's activities and operations was selected to ensure that they benefit from accurate and useful data and information provided by them as well as the powers they have in making decisions that can contribute to serious changes in the overall The company's activities thus have access to ideas and suggestions that enhance the importance of research. The researchers distributed (45) questionnaires to the respondents in their work sites in the research organizations. (40) Questionnaires were obtained for analysis, ie the response rate (88.89%).

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

Table (2) shows the characteristics of the individuals interviewed in the company.

Table 2: Characteristics of Individuals Interviewed in the Researched Organizations

Job Position												
Minimum Management				Middle Management				Senior Management				
%		Number		%		Number		%		Number		
35		14		45		18		20		8		
Academic Achievement												
Higher Diploma				BA				Technical Diploma			Secondary	
%		Number		%		Number		%		Number	%	Number
5		2		45		18		25		10	30	12
Years of service in the company (year)												
31and more		30-26		25-21		20-16		15-11		10-6	5-1	
%	Number	%	Number	%	Number	%	Number	%	Number	%	Number	% Number
7.5	3	12.5	5	10	4	15	6	25	10	20	8	10 4

Source**:** Table (2) prepared by researchers based on the results of the questionnaire.

Table (2) shows the job status of the respondents. Opinions were obtained from various administrative levels. As shown in Table (2), the educational attainment of respondents who have a good educational qualification enables them to understand and handle the questionnaire correctly and accurately (70%). It is also clear that (90%) of the respondents have a service in the company six years and more, which contributed to improve their experience and knowledge of the company's work and has a great impact in dealing with the questionnaire well.

Third: The correlation between the elements of continuous improvement and the quality of work life in the researched organizations. Table (3) presents the results of the correlations between the elements of continuous improvement and the quality of work life of the researched organizations.

Table 3: The Results of the Correlation between the Elements of Continuous Improvement and the Quality of Work Life in the Researched Organizations.

Overall index	Elements of continuous improvement						Independent variable
	safety	Sustainability	Normative	Cleaning	Ranking	Screening	Approved variable
0.842*	0.890*	0.716*	0.675*	0.729*	0.882*	0.846*	Quality of work life

(3) Prepared by researchers based on the results of the electronic calculator

It is noted from Table (3) that there is a significant correlation between the elements of continuous improvement and the quality of work-life at the level of the researched organizations. This finding indicates that the more the

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

departments of the research organizations are more interested in the elements of continuous improvement combined, the better the quality of work life. Based on the above, the first major hypothesis can be accepted at the level of the research organizations.

Table 3 also shows the correlation relationships between each component of continuous improvement individually and the quality of work life. According to the sub-hypothesis emanating from the first main hypothesis can be verified as in Table (3) agencies:

1- The Relationship between the Sorting Element and the Quality of Work-life: Table (3) indicates a positive correlation between the sorting element as an independent variable and the quality of work-life as an approved variable, where the total index of the correlation coefficient (0.846 *). This indicates that the interest of the administrations of the researched organizations in their screening element will contribute to enhancing the quality of work life.

2- The Relationship between the Ranking Element and the Quality of Work-life: Table (3) indicates a positive correlation between the ranking element as an independent variable and the quality of work-life as an approved variable, where the total index of the correlation coefficient (0.882 *). This indicates that the interest of the administrations of the researched organizations in the element of their arrangement will contribute to enhancing the quality of work life.

3- The Relationship between the Cleaning Element and the Quality of Work-life: Table (3) indicates a positive correlation between the cleaning element as an independent variable and the quality of work-life as an approved variable, where the value of the total index of the correlation coefficient (0.729 *). This indicates that the interest of the administrations of the researched organizations in their cleaning element will contribute to enhancing the quality of work life.

4- The Relationship between the Normative Element and the Quality of Work-life: Table (3) indicates a positive correlation between the normative element as an independent variable and the quality of work-life as an approved variable, where the total index of the correlation coefficient (0.675 *). This indicates that the interest of the administrations of the research organizations in their normative element will contribute to enhancing the quality of work life.

5- The Relationship between the Element of Sustainability and Quality of Work-life: Table (3) indicates a positive correlation between the element of sustainability as an independent variable and the quality of work-life as an approved variable, where the total index of the correlation coefficient (0.716 *). This indicates that the interest of the administrations of the researched organizations on their sustainability element will contribute to enhancing the quality of work life.

6. Relationship between Safety Element and Quality of Work-life: Table (3) indicates a positive correlation between safety element as an independent variable and the quality of work-life as an approved variable, where the total index of the correlation coefficient (0.890 *). This indicates that the interest of the administrations of the organizations concerned with their safety element will contribute to enhancing the quality of work life.

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

Consistent with the foregoing, the sub-projects emanating from the first main hypothesis are accepted at the level of the researched organizations. Accordingly, the first main hypothesis and its sub-hypothesis are accepted at the level of the research organizations.

Fourth: The impact of the elements of continuous improvement on the quality of work-life in the researched organizations: According to the second main hypothesis that "there is a significant sign of the elements of continuous improvement combined in the quality of work-life in the researched organizations" This effect is identified as in Table (4) and Table 4 illustrates this effect as follows:

Table 4: The Results of the Impact of the Continuous Improvement Elements Combined on the Quality of Work Life in the Researched Organizations

F		R^2	Elements of continuous improvement combined		Independent variable
Calculated	Tabular		β1	β0	Supported variable
4.09	65.634*	0.829	0.698 (12.350*)	0.503	Quality of work life

() Indicates the calculated T value* p≤0.05 N = 40 D.F (1, 38)

Table (4) of the regression analysis results shows that there is a significant effect of the elements of continuous improvement combined as an independent variable in the quality of work-life after which it is an approved variable. The calculated value of F (65.634 *) is greater than its tabular value of (4.09) at two degrees of freedom (1, 38) and a significant level (0.05). The value of the coefficient of determination (R2) (0.829), which means that (82.9%) of the differences explained in the quality of work-life due to the impact of elements of continuous improvement combined and the rest is due to random variables that cannot be controlled or not included in the regression model at all. Following the value of the coefficient of β1 of (0.698) and test (T) have shown that the value of (T) calculated (12.350 *) which is a significant value and greater than the tabular value of (1.684) at the level of significance (0.05) and degrees of freedom (1, 38).Consistent with the foregoing, the second main hypothesis is accepted at the level of the research organizations.Table (5) presents the impact relationships for each element of continuous improvement individually in the quality of work life. According to the sub-hypothesis emanating from the second main hypothesis can be identified through the following:

Table 5: The Impact of Each Element of Continuous Improvement Alone on the Quality of Work-Life Combined in the Researched Organizations

F		R^2	Elements of continuous improvement							Independent variable
			Safety	Sustainability	Standard	Cleaning	Standards	Sorting	β0	Supported variable
Calculated	Tabular		β6	β5	β4	β3	β2	β1		
2.53	87.842*	0.854	0.624 (12.53*)	0.332 (3.74*)	0.315 (3.62*)	0.488 (5.42*)	0.603 (11.42*)	0.598 (7.81*)	0.31	Quality of work life

() Indicates the calculated T value* p ≤ 0.05 N = 40 D.F (5, 34)

Table (5) shows that there is a significant effect of the elements of continuous improvement as independent variables (explanatory) in the quality of work-life after the adopted variable (respondent) and this effect is supported

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

by the calculated value of F (87.842 *), which is greater than the tabular value of (2.53) at two degrees Freedom (5, 34) and within a significant level (0.05). The value of the coefficient of determination (R2) was 0.854. This means that 85.4% of the differences explained in the quality of work-life are explained by the elements of continuous improvement and the rest is due to random variables that cannot be controlled or are not included in the regression model at all. From the follow-up of coefficients and T-test, it was found that there is a significant effect for each element of continuous improvement individually on the quality of work life. The sequence and priority of this effect can be identified through the following:

1. The impact of safety element on the quality of work-life: It is clear from table (5) that the highest impact of the elements of continuous improvement in the quality of work-life is the safety element, which came first in terms of impact, where the value of β6)) (0.624) while The calculated value of (T) was (12.53 *) which is a significant value and greater than its tabular value of (1.684) at the degrees of freedom (5, 34) and the level of significance (0.05).
2. The effect of the ranking element on the quality of work-life: The effect of the ranking element on the quality of work-life came in second place in terms of impact, where the value of β2)) (0.603), while the value of (T) calculated (11.42 *) which is a significant and greater value Of the tabular value of (1.684) at the degrees of freedom (5, 34) and a significant level (0.05).
3. The effect of the sorting element on the quality of work-life: The effect of the sorting element on the quality of work-life came in third place in terms of effect, where the value of (1β) (0.598) and the value of T calculated (7.81 *) which is a significant value and greater than its tabular value (1.684) at two degrees of freedom (5, 34) and a significant level (0.05).
4. The effect of the cleaning element on the quality of work-life: The effect of the cleaning element on the quality of work-life came in the fourth place in terms of effect, where the value of (3β) (0.488) and the value of T calculated (5.42 *), which is a significant value and greater than its tabular value (1.684) at two degrees of freedom (5, 34) and a significant level (0.05).
5. The impact of the sustainability element on the quality of work-life: The impact of the sustainability element on the quality of work-life ranked fifth in terms of impact, with a value of (5β) (0.332) and the value of T calculated (3.74 *) which is a significant value and greater than its tabular value (1.684) at two degrees of freedom (5, 34) and a significant level (0.05).
6. The impact of the normative element on the quality of work-life: The impact of the normative element on the quality of work-life ranked sixth and last in terms of impact, where the value of (4β) (0.315) and the value of T calculated (3.62 *), which is a significant value and greater than the table value of (1.684) at the degrees of freedom (5, 34) and the level of significance (0.05).

Consistent with the above, accept the sub-hypothesis emanating from the second main hypothesis at the level of the researched organizations. Accordingly, the second main hypothesis and its sub-hypothesis are accepted at the level of the researched organizations.

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

IV. CHAPTER FOUR: CONCLUSIONS AND PROPOSALS

First: Conclusions: Based on the Results of the Research, the Researchers Reached a Number of Conclusions

1. Individuals with good experience and knowledge of the work of the organization, as well as most of them have a good scientific qualification that enabled them to understand the questionnaire and deal with it correctly.
2. The majority of the individuals interviewed have a service in the organization (6) years or more, which indicates their experience and maturity in the work of the organization and then deal with the questionnaire correctly and accurately.
3. A significant correlation was achieved between the elements of continuous improvement combined and the quality of work-life in the researched organizations. This suggests that increased interest in the departments of the research organizations on the elements of continuous improvement will contribute to improving the quality of work life.
4. A significant correlation was achieved between each element of continuous improvement individually and the quality of work-life in the researched organizations. This indicates that increased attention by the administrations of the research organizations to each element of continuous improvement alone will contribute to improving the quality of work life.
5. achieved a significant impact of the elements of continuous improvement combined on the quality of work-life in the organizations studied, and this indicates the possibility of the impact of the elements of continuous improvement combined on the quality of work-life in the researched organizations.
6. Achieving a significant impact for each element of continuous improvement individually in the quality of work-life in the researched organizations. The most influential element in the quality of work-life was safe, and the least impact was the normative element, which was revealed by the results of statistical analysis.

Second: Proposals: Based on the conclusions reached, the researchers present the necessary proposals to the organizations of the research sample reached with the mechanisms of their implementation

1. Increasing the interest of the management of research organizations in the contents of management thought in the continuous improvement and quality of work-life and deepen it to managers and employees because of the contribution and enhance the organization's ability to survive and grow in the business world. To achieve this, we propose that the Department of the research organizations prepare an integrated annual cultural program on continuous improvement and quality of work-life to include a series of lectures and seminars with hosting a group of specialists in the areas of quality and human resources management in Iraqi universities and institutes.
2. Directing the attention of the administrations of the research organizations to the elements of continuous improvement of their importance in the various activities of the organization. To achieve this we suggest the management of the organization to motivate its employees to eliminate waste of all kinds in the production processes and give them incentive awards monitored by the management of the organization. Preparation of workshops on elements of continuous improvement 6S, including the definition and implementation. And sustainability at work. Organizing training courses for individuals working in relation

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

to the application of 6S in order to increase their experience and skills to ensure a successful application. Implement a program of periodic maintenance of the equipment and machinery of the organization to maintain a good readiness level. Development of catalogs showing employees the optimum status of work and the procedures they should follow. Giving employees the opportunity to participate in improving work and making decisions related to their guest. Providing modern and professional safety equipment in accordance with international standards.

3. Increasing the management's interest in the quality of work-life of the researched organizations as a commitment to their employees, as well as the benefits that the organization derives from achieving the quality of work life. To achieve this we propose to the departments of the organizations: Increase focus on the welfare of workers by providing basic necessities such as food and health equipment to maintain the safety of workers, which gives psychological, emotional and physical support enough to work. - Provide emotional support and guidance when the worker is irregular or does not perform well, which may be caused by a family problem. - Strengthening occupational safety procedures during work performance. - Provide an attractive wage schedule and can extend the permissible leave limits. Increased attention to teamwork and the formation of task forces to increase cooperation between workers.
4. The departments of the researched organizations to study and analyze the relationship and influence between the elements of continuous improvement and quality of work life. To achieve this, we propose to identify the relationship and impact between each element of continuous improvement individually and the quality of work-life and strive to make the most of the possibility of the application according to their relationship and follow up the results related to achieve developments in this area.

REFERENCES

[1] Abdulmouti, H. (2018). Benefits of Kaizen to Business Excellence: Evidence from a Case Study '. *Industrial Engineering & Management*, 7(2), 2169-0316.

[2] Acharya, G., & Siddiq, A. (2017). A study on Quality of Work Life in the Hospitality Industry Employees with special reference to DK District of Karnataka. *AGU International Journal of Management Studies & Research*, 5, 584-592.

[3] Al-Baik, O., & Miller, J. (2016, January). Kaizen Cookbook: The Success Recipe for Continuous Learning and Improvements. *In 2016 49th Hawaii International Conference on System Sciences (HICSS) (pp. 5388-5397). IEEE.*

[4] Al-Shawabkeh, K. M., &Hijjawi, G. S. (2018). Impact of Quality of Work-Life (QWL) on Organizational Performance: An Empirical Study in the Private Jordanian Universities. *Asian Social Science,* 14(6).

[5] Dudbridge, M. (2011). Handbook of lean manufacturing in the food industry. *John Wiley & Sons.*

[6] Filip, F. C., &Marascu-Klein, V. (2015). The 5S lean method as a tool of industrial management performances. *In IOP conference series: materials science and engineering* (Vol. 95, No. 1, p. 012127). IOP Publishing.

[7] García-Alcaraz, J. L., Oropesa-Vento, M., & Maldonado-Macías, A. A. (2017). Kaizen planning, implementing and controlling. *Springer International Publishing.*

[8] Gautam, V., Shah, A., Parmar, A., &Kedariya, V. (2014). Study of 6s Concept and its Effect on Industry. *International Journal of Emerging Technology and Advanced Engineering*, 4(10), 272-277.

[9] Hamid, H. (2015). *Continuous Improvement CSF framework for assessing ci maturity in ISO and non-ISO certified construction contracting organizations (Doctoral dissertation, UniversitiTun Hussein Onn* Malaysia).

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

[10] Indumathr, R., &Kamalraj, S. (2012), "A Study on Quality of Work Life among Workers with Special Preference to Textile Industry in Tirupur District- A Textile Hub", *International Journal of Multidisciplinary Research,* 2(4), 265-276.
[11] Juma, S. J. (2016). Continuous Improvement Practices and Product Quality Performance AT Tata Chemicals Magadi Limited (Doctoral dissertation).
[12] Migita, R., Yoshida, H., Rutman, L., & Woodward, G. A. (2018). *Quality improvement methodologies: principles and applications in the pediatric emergency department. Pediatric Clinics*, 65(6), 1283-1296.
[13] Mvakva, M., Prajová, V., Yakimovich, B., Korshunov, A., &Tyurin, I. (2016). Standardization - one of the tools of continuous improvement. *Process Engineering*, 149, 329-332.
[14] Mvakva, M., Prajová, V., Yakimovich, B., Korshunov, A., &Tyurin, I. (2016). Standardization - one of the tools of continuous improvement. *Process Engineering*, 149, 329-332.
[15] Mora, JNC (2014). Continuous Improvement Strategy. *European Scientific Journal*, 10 (34).
[16] Oedkado, M. F. (2019). Quality of working life for public school nurses in Iloilo County. *Journal of Nurse Media Nursing,* 9 (1), 2019, 1-12.
[17] Ossipango, or. a. And Uyunemi, a. a. And Abedeoon, a. C. And Uyunemi, a. a. (2019). Quality of Work, Life, and Organizational Commitment among Academies in Higher Education, *International Journal of Mechanical Engineering and Technology (IJMET),* Vol. (10), No. (2).
[18] Razak, N. a. , Perennial, h. And good, n. (2016). Measuring tools reliability and validity of the work environment towards the quality of work life. *Economics and Financial Procedures,* 37, 520-528.
[19] Rakhi, S. And Sharma P. (2018). Study on Quality of Work Life (QWL) in PSPCL, *International Journal of Research in Management, Economics, and Trade,* Vol. (8), No. (2).
[20] Sari, a. Dr.. , Suryobutro, M. R., AndRahmila, p. a. (2017, December). Study 6S workplace improvement in a comfortable laboratory. *In the IOP conference series: Materials Science and Engineering* (Vol. 277, No. 1, p. 012016). IOP Publishing.
[21] Soldier, b. (2014). A model for student assessment of the evaluation result in information systems education: continuous improvement or rainbow hunt? *Journal of Information Systems Education,* 12 (1), 4.
[22] Singh, Jagdip and Singh, Harwinder (2019). Strategic Implementation of the Continuous Improvement *Approach Strategic Implementation of the Continuous Improvement Approach, SpringerBriefs in Operations Management.*
[23] Smith, b. C. (2016). Develop a four-stage continuous improvement framework to support business performance in manufacturing SMEs (Ph.D. thesis).
[24] Srivastava, S., & Kanpur, A. (2014). Study on the quality of work life: the basic elements and their effects. IOSR-JBM, 16 (3), 54-59.
[25] Studio, n. (2017, December). Apply the 6S methodology as a tool to improve lean in the ink manufacturing company. *In 2017 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM)* (pp. 1666-1671). IEEE.
[26] Sumathi, V., &Velmurugan, D. R. (2017). Quality of work life of employees in private companies with reference to Coimbatore. *International Journal of Interdisciplinary Educational Research and Development,* 4 (5), 128-131.
[27] Uma, S. (1992). *Methods of Business Search,* 2thed, McGraw-Hill, Inc: New York, USA
[28] Ferris, C., Marian, L., Moika, S., Mind, k. (2018). Case Study on the Impact of 5S Method in Automotive Company. Procedural Procedures, 22, 900-905.
[29] Warwick, M.K. &&Mrugalska, B. (2017). *Mirage lean manufacturing in practice. Process Engineering*, 182, 780-785.

Appendix 1

Questionnaire form

Mr. Respondent.... Respected

Peace, mercy and blessings of God

The questionnaire is part of the research entitled "The Effect of Continuous Improvement Elements on the Quality of Work Life - An Exploratory Study in a Number of Small Industrial Organizations in Nineveh Governorate".

This form is a reliable measure for the purposes of scientific research, and your participation will have a positive impact in producing this study at the required level.

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

We would like to thank you for your precious time. That you have given me little to help us, I would be very grateful.

Please choose the answer that you think is appropriate for each question, note that the answer is used for scientific research purposes exclusively and without the need to mention the name.

We hope that all questions will be answered. The fact that any statement left unanswered means that the form is not valid for analysis.

We wish you success and always

Researchers

First: General Data:

1. Data about the organization or department

Name of Organization or Department B Type of Sector Public (Mixed) (Private)

2- Data related to the questionnaire:

A- Gender Male () Female ()

B- Career Center (Position): c - Academic Achievement: D - Term of service in the organization

Second: Elements of Continuous Improvement:

1. Screening:

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
1	We make things that are used frequently on demand and can be easily found.					
2	We remove things not in the current workplace from the workplace.					
3	We seek to organize the workplace.					
4	Our company management strives to ensure the flow of materials and the movement of workers easily and smoothly.					

2. Order:

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
5	We take care of putting the tools and stuff in place.					
6	We work to arrange the necessary things systematically in order to get them easily and quickly.					
7	All items and shelves contain labels.					
8	Specific areas are designated for garbage, rejection, waste, etc.					

3. Cleaning:

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
9	The management of our organization is always concerned with the cleanliness of the workplace to ensure a favorable atmosphere for production.					
10	The management of our organization believes that a clean environment helps to improve the performance of employees.					
11	Cleanliness minimizes problems that occur in the work environment.					
12	We always strive to maintain the cleaning of machinery and equipment to ensure the continuity of the production process.					

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020

4. Normative:

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
13	The management of our organization is concerned with determining the responsibilities of each employee at work.					
14	The management of our organization seeks to standardize work standards at all stages of production to ensure the ease and speed of completion of work.					
15	Does our organization's management use standard checklists to regularly check 6s?					
16	The management of our organization puts stereoscopic images of ideal conditions in the workplace to remind employees during work.					

5. Sustainability

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
17	The management of our organization is keen to raise the awareness of employees and the steps of the 6S.					
18	Staff take care of the arrangement by putting the tools and things in place					
19	Supervisors contribute to maintaining a public commitment to 6S concepts and making them part of the organization's culture.					
20	The management of our organization seeks to conduct periodic monitoring to ensure the continuity of the application of 6s.					

6. Safety

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
21	Site maps with emergency exits and firefighting equipment are available in our organization.					
22	Our organization adheres to occupational health and safety procedures.					
23	Employees use appropriate personal protective equipment.					
24	There is regular health and safety training for workers					

7. Quality of Work Life:

No	Ferries	Strongly agreed	Agreed	neutral	I do not agree	Don't strongly agree
25	Participate in making decisions about my business.					
26	I am completely satisfied with the income I earn for my work.					
27	Our organization has occupational health and safety principles and methods.					
28	Our management is keen to involve employees in training courses to develop their skills and abilities.					
29	I feel responsible for everything I do.					
30	I have an appropriate degree of freedom in my work.					
31	I am able to achieve my future job-related goals through my organization.					
32	I feel proud when I talk to others about my organization.					
33	The management of our organization is keen to create a positive spirit in the work.					
34	I work in a work environment characterized by mutual trust between all sides.					
35	I feel the quality of dealing with my co-workers.					

DOI: 10.37200/IJPR/V24I4/PR201446
Received: 15 Jan 2020 | Revised: 15 Feb 2020 | Accepted: 26 Feb 2020