The Implementation of Six Sigma Methodology as a Predictor of Occupational Professionalism in Higher Education Institutions

[1] Bachir Gherbi, University of Kasdi Merbah – Ouargla, Algeria, gharbi.bachir@univ-ouargla.dz

[2] Malika Ben Bordi, LERDR Laboratory, University Mohammed El Bachir El Ibrahimi of Bordj Bou Arreridj, 3034, El Annasser, Algeria, malika.benbordi@univ-bba.dz

[3] Assia Bouras, University of 20 August 1955, Skikda, Algeria, as.bouras@univ-skikda.dz

[4] Djedioui Nadia,University of Tebessa , Algeria, nadia.djedioui@univ-tebessa.dz

[5] Mimoun Mohamed, ,University of Adrar , Algeria, med.mimoun@univ-adrar.edu.dz

[6] Baha Bassi, University of Eloued,Algeria, bassi-baha@univ-eloued.dz

Received: 23-05-2023 Accepted: 15-10-2023 Published: 28-12-2023

Abstract:

This study aimed at identifying the role of occupational professionalism in the implementation of Six Sigma methodology in higher education institutions. The study was conducted on a sample of 191 university employees who were randomly selected using the descriptive-analytical method by distributing a questionnaire designed by the researchers. Results were analyzed using statistical techniques such as frequencies, percentages, correlation coefficients, and multiple regression analysis in the SPSS program. The study findings revealed that occupational professionalism has no significant contribution to the implementation of Six Sigma methodology in higher education institutions.

Keywords: Six Sigma methodology, higher education institutions, university, administrators.

Tob Regul Sci.™ 2023 ;9(2): 3389 - 3403

DOI: doi.org/10.18001/TRS.9.2.218

Introduction:

Organizations strive to define their vision and achieve their mission, which is the primary reason for their existence. Successful organizations recognize the importance of human resources and their contribution to achieving productivity and quality excellence in a variety of fields. Occupational professionalism is a critical component in today's labor market, where the topic of occupational professionalism and Six Sigma methodology has piqued the interest and enthusiasm of researchers in economics, business management, organizational behavior, and human resource management.

Attracting and recruiting individuals with diverse skills is a modern trend in human resource management and the workplace. Soft skills are an important and influential factor in an

employee's success at work. According to various studies, they constitute the majority of an individual's personal skills, as an exceptional person possesses 93% personal skills and only 7% technical skills. Soft skills are no longer considered optional, but rather important and required skills for employees. Communication and effective communication skills, time management skills, professional skills, leadership skills, and strategic planning skills are examples of personal traits related to communication with others through collaboration and interaction.

The quality of an organization's outputs, as reflected in customer satisfaction, is the most important factor in determining its success. The Six Sigma methodology is one of the most recent management approaches that adheres to the principle of continuous improvement for all aspects of the organization, relying on developing the human element's capabilities to use modern technologies and methods. Any university's future is determined by the performance of its academic and administrative staff, as well as its students. New ideas are constantly being developed in higher education to improve the quality of performance of these universities, and their overall performance includes their performance and the availability of skills in their staff, as well as how this reflects on their efficiency. Besides, these ideas are always in the form of new programs and tools, and their implementation results in a change in the university's culture, which has a positive impact on the performance of the college and then the university and achieves success at all levels, beginning with the students and ending with the highest administrative levels. However, spreading them is a necessary issue that is not limited to the upper levels but includes every individual in the university, and the success of that depends on a set of main conditions and requirements, such as the success factors in applying the Six Sigma methodology in higher education institutions.

The Six Sigma methodology is a natural extension of total quality management, which is one of the administrative functions that strives to make the best use of available resources. It is regarded as a comprehensive system for continuous improvement and guidance of managers and employees toward innovation in order to sustain growth, increase profitability, and improve customer satisfaction in a tangible way, ultimately leading to the achievement of those planned goals. Adopting modern administrative approaches, such as the Six Sigma methodology, in higher education institutions is no longer a luxury but a necessity as a result of the world's new reality. The significance of this administrative approach in higher education institutions stems from the importance of the service provided by these institutions as well as their sensitivity because they are linked to societal progress and development. Education quality and improvement are critical to nation advancement and ranking, and low-quality education leads to nation backwardness. As a result, these institutions must work hard to improve their performance and development.

1.Problematic:

Higher education quality is regarded as one of the means of improving and developing the quality of education, performance, and skill development in the globalization era, also known as the era of quality. The latter is no longer a pipe dream or an intellectual luxury that educational institutions can take or leave but rather an urgent necessity characterized by the rapid changes witnessed in the higher education sector around the world and the demands of modern life. This necessitates that higher education institutions rely on quality standards and their various

curricula because the implementation of their curricula, including the Six Sigma methodology, will affect and support employee development and the preparation of more skilled and innovative human resources in the knowledge society. 240 (Channaf and Belkhiri, 2017).

The implementation of the Sigma Six methodology heavily depends on what the organization provides at all levels, including efficient and organized administrative work in an effective manner and a work environment that contributes to the development and improvement of human resources performance, which is considered the most important and primary tool for any organization by activating its role and attention to enable employees to achieve the highest level of occupational professionalism. Such professionalism is considered an indicator of consistent and integrated work within the organization. According to the online dictionary Merriam-Webster, occupational professionalism is defined as "the individual who is distinguished by or conforms to the technical or ethical standards of the profession and exhibits a polite demeanor and professional conscientiousness in general in the work plan" (Frein, 2006, p. 22).

Conceptually, professionalism is a type of work that meets a set of standards. It is an important individual trait, regardless of whether the job is considered a profession or not. Professionalism is derived from the word "profession," which refers to a job that requires knowledge, including science, skills, and methods. Professionals have distinct abilities, as the term refers to individuals who have a high level of knowledge, special training, and creative thinking abilities in order to perform tasks related to their expertise and profession (Basri & Lumbanraja, 2019, p. 166).

Professionalism in the workplace is a fundamental and essential component in creating a productive work environment and fostering a collaborative spirit among employees. Professionalism should be a top priority for human resource managers because it has numerous advantages, such as preventing personal opinions from dominating work processes and preventing conflicts from impeding progress and development. Professionalism increases employee job satisfaction and helps any organization build a good reputation, while also increasing creativity and broad thinking. Personal professionalism in the workplace is one of the most important factors in the success of individuals and organizations, and it has become one of the most competitive advantages for professional establishments. One of the top ten skills that business leaders and executives look for in job applicants and employees is professionalism. (Hadjaj, 2014, p. 27)

Occupational professionalism contributes to activating the Six Sigma methodology, which is considered a smarter way to manage the organization. It was created to improve the quality of the organization's work in order to meet employee needs more successfully. The methodology prioritizes the employee while utilizing the various data sources available to achieve better results. It contributes to improving and increasing occupational professionalism because human resource management professionalism is a topic of discussion and research for many specialists in this field. According to Bruch (2007), higher education in the field of human resource management is important for effective role implementation in the profession, as it facilitates the acquisition of necessary experience to improve skills and personal development. Interest in human resource professionals is determined by their involvement in planning and improving human resource

management through reliance on the first level of perception and implementation of human resource management activities at the level of knowledge and professional skills of those involved in evaluating human resources. The second area of reliance is in assisting functional department managers with recruitment, selection, training, and performance evaluation (ALIC, 2017, p. 172).

Although Six Sigma has been used successfully in the business environment to improve products and services, understanding how to use Six Sigma to enhance the higher education process towards achieving quality is presented through a number of models that conform to Six Sigma principles such as process improvement, waste reduction, and continuous improvement that are closely aligned with the missions of higher education institutions and accrediting agencies. A sustainable, high-quality educational process can be developed with the aid of Six Sigma tools such as statistical process control, lean manufacturing, and failure mode and effect analysis. A process map with a SIPOC (supplier, inputs, process, output, and control), root cause analysis, and FMEA (failure mode and effects analysis) has been developed for higher education. These tools can be used by higher education institutions to improve their processes and achieve their desired quality goals (Quamrul H. 2014, p.2).

Due to the importance and significant role played by the Six Sigma methodology in higher education institutions, this is evident in the attention given by business owners who rely on Six Sigma models such as the DMAIC model, which focuses on defining, measuring, analyzing, improving, and controlling quality. On the other hand, several studies on the use of the Six Sigma methodology in higher education institutions have emerged. Dradka and Mahmoud (2014) conducted a study to identify the Six Sigma requirements at Taif University and their relationship to occupational professionalism. According to the study, human requirements (human resources) are the most important area of Six Sigma requirements. Al-(2015) Ghamdi's study, on the other hand, determined the reality of the success factors for implementing Six Sigma in occupational and administrative professionalism in Saudi universities from the perspective of academic administrative leaders, concluding that there is significant importance for the success factors of Six Sigma application in developing administrative professionalism in Saudi universities.

There is a research gap that needs to be addressed after reviewing the research, studies, and topics covered in the study. Studies have emphasized the importance of soft skills, particularly occupational professionalism skills, which aim to achieve higher quality and job satisfaction, enhance competitiveness and performance, reduce errors and costs, and achieve effectiveness and continuous improvement in higher education institutions. Therefore, the research problematic can be formulated through the following question:

- Is there a statistically significant effect of occupational professionalism on the implementation of Six Sigma methodology in higher education institutions ?

2. Hypotheses:

A scientific hypothesis is an opinion or an idea that is correct in light of what is known and available about certain facts or information. A scientific hypothesis can also be defined as specific relationships that exist between variables, such as independent and dependent variables. The

researcher attempts to comprehend and measure the independent variables' effects on the dependent variables (Bouhouch, 2019, p. 29).

In this study, hypotheses are an essential cornerstone that cannot be overlooked. In order to become acquainted with the research topic and attempt to answer the study's problematic and its sub-questions. The researcher decided to divide the study variables to represent soft skills and their dimensions (leadership, effective communication and outreach, occupational professionalism, strategic planning, and time management), and the dependent variable lies in the methodology (Six Sigma). Therefore, the study hypotheses are based on the following:

- There is a statistically significant effect of occupational professionalism skill on the implementation of Six Sigma methodology in higher education institutions.

3. Objectives:

The objectives assist the researcher in focusing on his research and directing his efforts toward achieving the study's goals. They also help research evaluators and supervisors to assess the success of the research and whether the results achieved meet those objectives (Hafez, 2012, p.12). Therefore, the objectives of the study are embodied in the following:

-Highlighting the role of soft skills in the implementation of the Six Sigma methodology in higher education institutions.

-Determining the level of occupational professionalism in higher education institutions implementing the Six Sigma methodology.

4. Study importance :

The scientific significance of the study is reflected in the scarcity of scientific studies on soft skills, particularly occupational professionalism and the Six Sigma methodology, in higher education institutions. It also helps to improve and develop the potential of soft skills researchers in order to achieve high quality and continuous improvement in higher education institutions. The study is also significant because it serves as a scientific reference to enrich and provide the library of psychology in general and industrial and organizational psychology in particular. In addition to business management, due to the close interconnection between the specialization in management and economics, as well as providing the higher education sector with important strategies for global development and modernity, represented by the professional occupational competence strategy and the Sigma 6 methodology. Furthermore, the importance of this research lies in drawing the attention of researchers and specialists to this topic, investing in it, and delving deeper into its data.

On the practical side, the importance of this study lies in its provision of a practical guide to the role of occupational professionalism in the implementation of the Six Sigma methodology in higher education institutions. It also emphasizes the subject's novelty by linking two critical variables, soft skills and the Six Sigma methodology.

The significance of this study for researchers is that it allows them to comprehend the role of occupational professionalism in the application of the Six Sigma methodology at Batna 1 University, based on the theoretical heritage of both variables.

5. Procedural definition of research variables:

Occupational professionalism skill: mastery of knowledge management capabilities and strategies, or their implementation, as well as possessing the required behavior, meeting quality standards, and controlling behaviors as a set of skills (Tanang and Abu, 2014, p. 27).

Procedurally defined, occupational professionalism in this study is the professional behavior of administrative employees in various Algerian institutions of higher education who adhere to work ethics, professional conduct, and professional behavior standards in order to achieve high performance quality in the university.

Sigma Six methodology: It is a quality improvement strategy that integrates the organization's capabilities to achieve a comprehensive and radical solution to all production process problems in the organization through employee collaboration, with the goal of achieving customer satisfaction with the highest quality at the lowest possible cost (Appelich, 2014, p. 23).

Procedurally defined, the Sigma Six methodology is used by administrative employees in various Algerian higher education institutions to achieve quality in different improvement processes under study, according to the degrees obtained by respondents using the tool that measures and represents this study's variable of the Sigma Six methodology and its dimensions.

6. **Study methodology:**

In accordance with the studys nature, which aims to identify the role of soft skills in implementing the Six Sigma methodology in higher education institutions, the researcher used the descriptive approach, which aims to provide an accurate quantitative and qualitative description of the study. It seeks to clarify the sample characteristics, which include demographic characteristics (gender, age, educational level, and position) of administrative employees in the higher education sector. The study seeks to identify the effect and role of soft skills in implementing the Six Sigma methodology in higher education institutions using study variables such as (soft skills, occupational professionalism, leadership skills, time management skills, effective communication and outreach skills, strategic planning skills, and Six Sigma methodology). To answer the study hypotheses, compare the study results to those of previous studies, interpret the results, present, analyze, tabulate, and classify them, and reach generalizations.

7. **Study population and sample:**

It is all the elements that could be subject to the study, and it represents all individuals or things that are the subject of the problem. It is the entire area of study in which the research will be conducted, and it is determined by the nature and objectives of the research (Aichour et al., 2017, p. 248).

The study population in this research represents all administrative employees who work in various sectors of higher education at the national level, including universities and institutions of higher education and scientific research.

The study sample was selected using a random sampling method, and the primary study sample consisted of 191 administrative employees in institutions of higher education.

8. Psychometric characteristicsof the study tools:

8.1. Psychometric characteristicsof the Occupational professionalism Scale:

8.1.1. Validity:

Table 1 shows the degrees of correlation between items and sub-scales of the Occupational professionalism Scale.

Field	Correlation	Significance
I keep professional secrets inside my business	0.641**	0.000
I follow a system of self-development and learning	0.712**	0.000
I am good at working under pressure	0.696**	0.000
Make sure to do my job well	0.667**	0.000
I feel good about myself when I complete my work	0.709**	0.000
I seek to achieve creativity in my work	0.781**	0.000
I am developing my organization	0.771**	0.000
I Always work to provide the best	0.681**	0.000
I never think about changing my place of work	0.791**	0.000
I always attempt to solve problems in creative ways	0.888**	0.000

**=significant at 0.05

*= significant at 0.01

The table (01) shows that the correlation coefficients for the items of occupational professionalism skills range between 0.667 and 0.888, which are acceptable values and significant at the 0.05 level. Therefore, the scale is considered valid for its intended measurement.

8.1.2. Reliability:

Table 02 illustrates the value of reliability using the stratified Cronbach's alpha equation.

	Occupationalprofessionalism scale	
Items number		10
variance	18,085	102,686
Reliability (Cronbach)	.877	/
Stratified alpha	0.93	

8.2. Psychometric Characteristicsof the SEGA-6 scale:

8.2.1. Validity:

Determinant: 7.784

Table 03: Kaiser's and Bartlett's tests

Kaiser's (KMO)criterion		.949
Bartlett test (Bartlett's Test of Sphericity)	Ca2	3,401,280
	Degrees of freedom	210
	Statistical significance	.000

Based on the obtained results, we notice from the table that the determinant value of the correlation matrix is.784, which is greater than 0.00001, indicating no linear dependence between the variables (redundancy and duplication of information) and no excessively high correlations. Also, the Bartlett's test is statistically significant at 0.000, which means that the correlation matrix contains the minimum number of relationships and is not free from relationships; the sample size is sufficient and valid for conducting factor analysis.

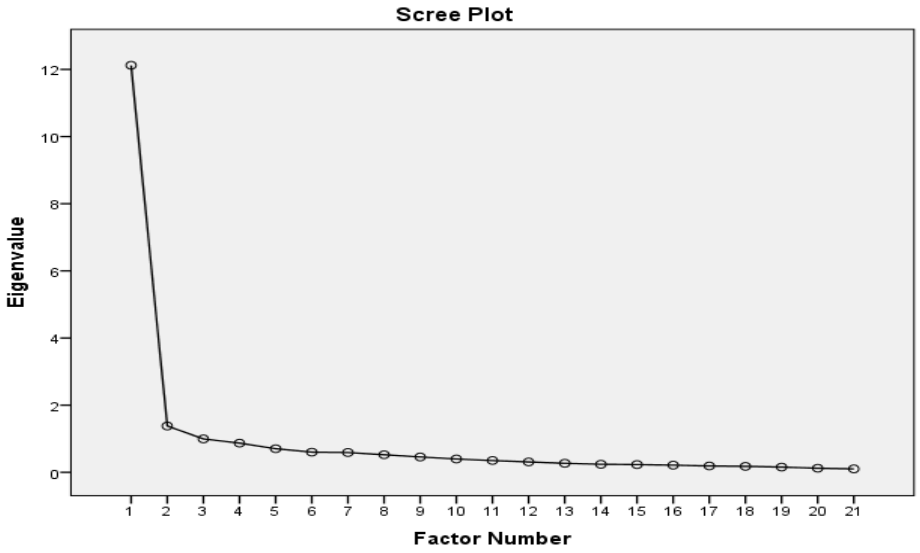
Bartlett's test is a necessary condition but not sufficient to judge the suitability of the correlation matrix for factor analysis. Therefore, Kaiser's (KMO) was used, which indicates that the correlations are generally within the required level. The value of the KMO test was 0.949, which is higher than the minimum acceptable value for sample adequacy (0.05), which is significant, indicating that the correlations between variables are generally within the required level. This suggests that the sum of the squares of the correlations between variables is larger than the sum of the squares of multiple correlations, indicating the presence of one or more factors that affect the variance of the measured variables. This means that there are areas of common variance between the variables, as the factor analysis is appropriate.

Table 04: Loading Matrix of Six Sigma Methodology Scale Items (Pre-Rotation) Using Exploratory Factor Analysis by Principal Axis Factoring (N=175) After Deleting Items with Loading < 0.40.

	Items	Determinant 1
	Sigma17	.887
	Sigma19	.864
	Sigma20	.847
	Sigma4	.837
	Sigma16	.822
	Sigma18	.819
	Sigma7	.815
	Sigma15	.814
	Sigma21	.785
.	Sigma13	.756
.	Sigma11	.755
.	Sigma3	.746
.	Sigma5	.739
.	Sigma2	.736
.	Sigma8	.721
.	Sigma6	.717
.	Sigma1	.672
.	Sigma9	.659

.	Sigma14	.584

Table 04,, Through which represents the matrix loading Sigma of the Six



methodology factors (before rotation) using exploratory factor analysis with principal axis factoring and after oblique rotation using Promax (n = 175), where items with loadings less than 0.40 were removed, we observe that the matrix is composed of one factor and is loaded with 19 items, with values ranging from 0.584 to 0.887, which are good values.

Figure 01 shows the slope curve of the Six Sigma methodology factors.

In the scree plot, the horizontal axis represents the component number, while the values of the eigenvalues are represented on the vertical axis. The scree plot is the second criterion for determining the number of eigenvalues, as it involves keeping the factors that appear in the very high regression part of the curve before it levels off. The plot shows that two factors were rotated.

8.2.2 .Reliability:

Table 05 illustrates the value of reliability using the StratifiedCronbach's alpha equation

	Dimension 1	Dimension 2	
Items number	6	5	
variance	126,310	6,461	166,434
Reliability (Cronbach)	.954	.686	/
Stratified alpha			.95

The table shows that the reliability coefficients for the study variables ranged between 0.687 and 0.954, indicating that the tool developed for this study reflects reliability in the stability of the results. The Cronbach's alpha coefficient ranges between 0 and 1, and the closer it gets to 1, the higher the reliability. This indicates that if the measurements and research were repeated and used again under the same conditions, the values considered by the researcher would be deemed suitable for the purposes and objectives for which these fields and items were created.

On the other hand, the calculation of the reliability for the soft skills questionnaire using the stratified alpha equation resulted in a high reliability coefficient, which enhances the quality and reliability of the questionnaire. The value of the stratified alpha coefficient was 0.95.

9. Presentation and discussion of study results:

9.1. Study resultspresentation:

Hypothesis text: Occupational professionalism skill affects the implementation of the Six Sigma methodology in higher education institutions. This hypothesis was tested using the simple linear regression coefficient to determine the effect of the independent variable, which is soft skills, on the dependent variable, which is the Six Sigma methodology. The results were as follows:

Table 06: Model summary

Model	correlation coefficient	determination coefficient	Adjusted determination coefficient	estimation error
1	040	.002	-.004	12.92442
				Occupational professionalism skill

The correlation between the independent and dependent variables is : 0.040.

The coefficient of determination R^2, which is the proportion of variance in the dependent variable explained by the independent variable, is 0.002 (0.2%).

The adjusted R^2 is -0.004.

The ANOVA test resulted in $F(1, 189) = 0.310$, $p > 0.05$.(0.578)

Table 06: Degree of the independent variable's effect on the dependent variable

	Regression coefficient	Standard error	Standard regression coefficient	T calculated	Significance level
Constant	35,884	7,110		5,047	.000
Occupational professionalism skill	.220	.394	040	.557	**.578**
Dependent variable: Six Sigma methodology					

The determinant coefficient is used to explain the variance of one factor that can occur due to its relationship with another that is heavily relied on in trend analysis. It is represented as a value between 0 and 1, where the determinant coefficient (R-squared) represents the percentage of variance in the dependent variable (Sigma Six methodology) explained by the independent variable (occupational professionalism skill), which is 0.002 or 0.02%, while the remaining 99.8% is attributed to other factors. Similarly, the value of the adjusted determination coefficient (R-squared) is 0.004, which represents 0.04% of the variance that can be explained in the case where the analysis is conducted on data that represents the study population. It is observed that the difference between the determination coefficient (R-squared) and the adjusted determination coefficient (R-squared adjusted) is estimated at -0.2, indicating the inability of the independent variable (occupational professionalism skill) to predict the values of the dependent variable (Sigma Six methodology). The correlation coefficient value (R) is 0.040, which is a very weak value, indicating that there is no significant relationship between the variables at a significance level of 0.05. The regression significance test results showed a p-value of 0.578, indicating that the standard regression coefficient (0.040) is not statistically significant as the p-value is greater than 0.05. Additionally, the $p>0.05$ and the calculated t amounted to $t = 3.10$, which is smaller than the tabulated t, which amounted to $t = 5.047$ at a significant level of 0.000, which is a non-significant value. This means that the research model is not significant. The effect of regression coefficient B was 0.220, indicating that a one-unit increase in occupational professionalism can affect the implementation of Six Sigma methodology in higher education institutions. Therefore, we conclude that there is no effect of occupational professionalism skill on the Six Sigma methodology, which means that the hypothesis that there is a statistically significant effect of occupational professionalism skill on the application of the Six Sigma methodology in higher education institutions is null. Hence, we say that the hypothesis is not realized.

9.2 .Discussion of study results:

The study revealed no statistically significant effect of occupational professionalism on the implementation of the Sigma Six methodology in higher education institutions. This is most likely due to administrative employees' inability to work under pressure and their dissatisfaction with the tasks assigned to them. Whereas a safe environment within the organization allows individuals to freely express their problems and concerns. A sense of accomplishment and a secure environment are critical for the successful implementation of the Sigma Six methodology in higher education institutions. In addition to the loss of desire to be creative at work, the implementation of the Sigma Six methodology in higher education institutions is required. Furthermore, continuous encouragement and motivation of individuals to continue their work and contribute to achieving global quality in higher education products and services, as well as identifying potential opportunities and improvement projects through the contributions of all university members with new and creative ideas and opinions, Also among the reasons is the absence of a development and self-learning system, which requires the implementation of the Six Sigma methodology in higher education institutions by improvement teams, considering that continuous improvement is linked to the continuous development of knowledge about the dimensions of the administrative process and taking measures for this development. Furthermore, the reasons stem from the absence of integrity and the disclosure of professional secrets, as this phenomenon contributes to weak job performance. As a result, quality is not achieved, and the Six Sigma methodology is ineffective. This contradicts the findings of the Polh-Lepson Research Group-York study (2013), which concluded that professionalism in the workplace has improved in Pennsylvania, USA.

Professionalism in the workplace is an important aspect of motivation and organizational culture, encompassing values, skills, and a sense of belonging to the organization. It also aims to create a spirit of cooperation among employees, increase job satisfaction, and increase creativity, leading to a competitive advantage and implementing the Six Sigma methodology in higher education institutions. Among the skills of professionalism are pre-planning work, knowing general work methods, maintaining professional confidentiality, collaborating with employees, using appropriate initiative to achieve quality, applying the Six Sigma methodology in higher education institutions, participating in problem-solving, setting clear and specific goals, committing to the university administration's mission and values, being prepared to accept responsibility and risk, and demonstrating innovation and success in promoting a spirit of friendship and informal treatments between employees to achieve quality and implement the Six Sigma methodology. Besides, excellence in performance represents an important point for achieving the Six Sigma methodology system in higher education institutions through experience and interaction among members of the organization and commitment to ethical rules. However, continuous lifelong learning is a good indicator for implementing the Six Sigma methodology in higher education institutions because it contributes to keeping up with modern developments in the field of management. Furthermore, the impact of professional proficiency skills lies in applying the Six Sigma methodology in higher education institutions by adhering to high ethics, professional conscience, achieving professional safety, creative thinking, ethical leadership, and feeling a sense of belonging to the organization to achieve service quality, reach a high level of performance, and continuous improvement. According to a study by Hadjaj (2014) on the importance of professionalism in the workplace, it is a distinctive skill that employers seek in job applicants,

especially for administrative positions that require the employee to be professional in their work and to master specific skills that enable him to excel and achieve goals.

Conclusion:

This study was initiated to address the problematic role of occupational professionalism in the implementation of the Six Sigma methodology among administrative employees in higher education institutions. It emphasizes the importance of this skill in increasing employee efficiency and contributing to improved performance and quality through teamwork, strategic planning, time management, compliance with work rules and regulations, commitment to mastering work, and developing future plans and visions. Through teamwork, time management, strategic planning, flexibility, problem-solving, occupational professionalism, leadership, communication, and effective communication, occupational professionalism represents an important point in today's work environment, particularly in higher education institutions, to achieve quality and contribute to the implementation of its methods, such as the Six Sigma methodology.

Based on the results of this study, a set of recommendations can be suggested, including:

•The necessity of working on developing leadership skills and occupational professionalism skills among administrative employees in higher education institutions.

•Embedding the concepts of occupational professionalism and the Six Sigma methodology in higher education institutions.

•Relying on exploratory factor analysis in academic studies.

•Making soft skills a part of the organizational culture of higher education institutions.

•Encouraging employees to acquire soft skills and employ them in the work environment.

References List:

*- Aybash Rasim Bouzan (2014: **Factors supporting the use of Six Sigma and its role in improving the quality-of-communicationsservice outputs:** A field study in telecommunications companies, PhD thesis in Business Administration, Faculty of Economics, University of Aleppo, Syria).*

*- Bouhouche Ammar et al. 2019): **Scientific Research Methodology and Techniques in the Social Sciences,** 1st Edition, The Arab Democratic Center for Strategic, Political, and Economic Studies - Berlin, Germany.*

*- Hafez Abd al-Rashid Ibn Abd al-Aziz (2012): **Fundamentals of Scientific Research**, 1st Edition, Scientific Publishing Center, King Abdul Aziz University, Jeddah, Saudi Arabia*

- *Channaf Khadidja, Belkhiri Mourad (2017):* ***Standards for Quality Assurance of Higher Education****, Journal of Social Studies and Research, Martyr Hama Lakhdar University, Al-Wadi, Issue 24.*

- *AlIc B (2017)****: Evaluation of professionalism in human resources management in the Republic of Moldova****, Academica Brancusi Publisher.*

- *Barjak Tarovic, Dejan Jecmenica (2011),* ***Six-Sigma Concept for Acta Technica Convenience's Bulletin of Engineering in Romania***

- *Quamrul H,Mazunder (2014),* ***Applying six sigma in higher education Quality improvement*** *21st Asee annual conference & exposition Indianapolis in June 15,18,2014, American society for engineering education.*

- *Tanang H. and Abu B. (2014):* ***Teacher Professionalism and***