

# The Level of The Educational Quality Improvement Indicators in Private Jordanian Universities from The Perspective of The Academic and Administrative Staff

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**Abstract---** This study aimed at identifying the level of educational quality improvement indicators in Jordanian private universities from the perspective of the academic and administrative staff. To achieve the objective of the study, the researcher followed the descriptive-analytical approach, examined theoretical literature and previous studies that dealt with measuring the continuous improvement of educational quality in universities. The researcher built a questionnaire consisted of (20) items distributed in four dimensions: planning, implementation, evaluation, and correction. The researcher applied the study instrument to a random stratified sample of the academic and the administrative staff in private Jordanian universities working in the universities of (Irbid National University, Jerash University, Al-Ahliyya Amman University, and ASU University) who are ( 1138), including (396) academic member, and (742) from the administrative staff. The results of the study showed that the level of the educational quality improvement indicators in private Jordanian universities came at a high degree on the overall performance and that the dimension of planning came first. The results also showed that there is a statistically significant difference at the level of statistical significance ( $\alpha = 0.05$ ) between the two means for the participants responses on the overall items of the study instrument “ the improvement indicators” attributed to the accreditation attribute variable, in favor of universities that have quality assurance. The results also indicated that there is no a statistically significant difference at the level of statistical significance ( $\alpha = 0.05$ ) between the two means for the responses of the study sample on the overall items of the study instrument “the improvement indicators” due to the variable of the job title (academic staff, administrative staff).

**Keywords---** Improvement Indicators, Private Universities, Academic Staff, The Administrative Staff.

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## I. INTRODUCTION

Higher education has globally witnessed several changes and developments as a result of social, economic, cultural and technological transformations that required universities to adopt modern administrative models that contribute to the development and achievement of their multiple goals. Undoubtedly, the attention to improving performance indicators was one of the administrative methods that contributed to achieving high-performance quality in higher education.

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In Jordan, Higher education began with the establishment of the first Teachers' House in 1958, which was later called the Institutes of Teachers, and then in the 1990s, it was upgraded to community colleges. As for university education, it started in 1962 by establishing the University of Jordan, then the number of public universities increased to reach ten universities.

In 1989, the first private university was established in Jordan, which is called Al-Ahliyya Amman University. The nineties have witnessed a significant increase in the numbers of private universities as (18) private universities were constructed with (3016) academic members and (4324) administrative staff. Universities have played a significant role in providing strong support for higher education in Jordan as they bring about a qualitative leap in education with the partnership of the public universities (Ministry of Higher Education and Scientific Research, 2016).

Four private universities received the Jordanian quality assurance certificate of a total of eighteen universities: The University of Petra, ASU, Al-Ahliyya Amman University, and the Middle East University. Other private universities received the quality assurance certificate at the level of the academic program, that are Al-Zaytoonah University, and Zarqa University. While four public universities received quality assurance at the level of the academic program, the University of Jordan, the University of Science and Technology, the University of Muthah, and the Hashemite University (Council of Higher Education Accreditation Jordan, 2018). One of the key factors in improving the quality of goods and services is developing performance standards, as what can not be measured can not be improved, and it is not possible to identify the extent of productivity or service efficiency improvement unless we implement one or more measurement instruments.

The idea of a continuous improvement process depends on creating a system of operations documentation or what is called a comprehensive quality management system guide, which are texts of the quality policy, objectives, all procedures and documents, and the locations of records required to implement the system. In addition to its preparation methods (Majeed and Ziadat, 2007).

Perhaps the basis of the philosophy of continuous improvement is the belief that any aspect of the process can be improved, and that individuals are very closely associated with the process, and it is not necessary to wait for the problem to worsen before action is taken (Al-Haddad, 2009). Idris et al. (2012) indicated that the purpose of the improvement program is to evaluate, supervision and care about the outputs or learners in educational institutions and this would focus on the weaknesses in the processes to find and address them to provide a better service to society and customers. In education, the principle of continuous improvement can be achieved by conducting a brainstorm for improvement and eliminate all aspects of ineffective activities in the educational process, discussing the results of brainstorming, choosing and applying the best solutions and improvements to develop the education process (Dudin and Musaada, 2012).

Martins and Toledo (2000) emphasized that the process of continuous improvement must not be separated from the comprehensive quality management if the organization wants to continue to achieve the best results and provide the best services to customers and that quality or product quality is not seen as the best thing for the beneficiaries. One of the pioneers of TQM, Crosby pointed out that continuous improvement is the improvement that must be a

habit or year in which the organization continues to continuously maintain the quality of inputs, processes and outputs. (Aqili, 2009).

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Continuous improvement (kaizen) according to the Japanese language, rooted back to Japan. After the damages caused during the Second World War, Japan sought to start the process of launching construction. Therefore, many Japanese companies adopted continuous improvement (Dysko, 2012). Among the first companies to adopt the process of continuous improvement, was Toshiba in 1946 and, Toyota in 1951. The spiritual father of the philosophy and the director of the Institute "Emaq Mas aqki" believed that continuous improvement that was adopted by Japan, was the secret of their success in competing and achieving the best results (Idris, Ahmed and Al Akhtar, 2012).

Hussein (2016) pointed out that the Japanese method, which is called kaizen administrative system, is the first continuous improvement method, which consists of two parts (kai), means change and, (zen) means good or better. This method seeks to improve different aspects including the improvement of these factors; customer, teamwork, quality workshops, required timing, the relationship of management with workers, and the use of technology in the work. The second way is the American way, it is completely different from the Japanese way, as it focuses on inventing new things to replace the traditional ones, and they see that the process of replacement is the process of improvement.

### ***The Problem of the Study***

The world is witnessing many rapid changes and developments in various aspects of life; thanks to the great scientific progress achieved by man and thanks to the technology that has made the globe a small screen, This requires keeping abreast of all developments, especially in the educational and administrative fields. Universities that can keep pace with the developments can be pioneering and distinct. Continuous improvement is one of the important aspects of universities because proper planning achieves the desired results. Private Jordanian universities realized the importance of excellence in enhancing performance and achieving qualitative leaps. Hence, this study came as an attempt to reveal the level of continuous improvement therein.

### ***Study Questions***

The study problem was identified in the following main question: What is the level of indicators of improving educational quality in private Jordanian universities from the perspective of academic and administrative staff? From this main question, the following sub questions are derived:

1. What is the level of the educational quality improvement indicators in private Jordanian universities that received accreditation and non-accreditation from the perspective of academic and administrative staff therein?
2. Are there statistically significant differences at the level of ( $\alpha= 0.05$ ) between the responses of the participants about the improvement indicators in Jordanian private universities due to the quality of the accreditation variable (accredited / non-accredited)?
3. Are there statistically significant differences at the level of statistical significance ( $\alpha= 0.05$ ) between the arithmetic mean for the participants' responses on the overall items of the study instrument related to the improvement indicators and each of its fields attributable to the variable of the job position (academic staff, administrative staff)?

### ***Objectives of the Study***

1. Revealing the level of improvement indicators in Jordanian private universities from the perspective of academic and administrative staff.
2. Revealing if there are statistically significant differences in the attitudes of the study sample towards the levels of improvement of comprehensive quality management attributed to the job description.
3. Revealing if there are statistically significant differences in the attitudes of the study sample towards the levels of improvement of comprehensive quality management attributable to the university's accreditation from the Jordanian Quality Accreditation Authority or not.

### ***The Importance of Study***

The importance of the study stems from the importance of developing and improving performance and its role in achieving a highly competitive advantage. And what the study can reveal about the level of performance improvement in private Jordanian universities. What the results of this study will benefit officials in private universities in developing and improving performance indicators therein. It also provides a new addition to previous studies that dealt with this aspect.

### ***The Limits of the Study***

- The objective limit: The current study addresses performance improvement indicators in private Jordanian universities.
- Human limit: academic and administrative staff in private Jordanian universities.
- Spatial limit: The study is limited to the four private Jordanian universities in northern Jordan, which are: Al-Ahliyya Amman University, ASU, Jerash University, and the Irbid National University.
- Time limit: the study was applied in the first semester of the 2019/2020 academic year.

### ***Study Terms***

**Continuous improvement:** Fathia (2015) defined it as: a process that focuses on preventing errors or differences in the level of product delivery and eliminating their causes in advance, and this requires continuous monitoring of each stage of operations, and constantly looking for better ways to present the product in a way that

keeps pace with changes in Customer requirements. Adam (2001) defined it as improving the quality of products or services through applying a specific strategy of high value, through which the organization can compete in the field of business.

**Improvement indicators:** They are the implementation and growth of services in institutions to achieve efficiency and effectiveness, and to maintain transparency and accountability (Mohamed, 2012). They are the desires and needs of individuals to work, and competition to face changes (Al-Zoman, 2007). The researcher defined it as: an administrative philosophy that aims to develop the processes and activities related to machines, materials, individuals and production methods continuously to reach perfection. And it is procedurally measured in the current research through an arbitrated questionnaire provided to members of the academic and the administrative staff of universities in Jordan.

## II. THEORETICAL FRAMEWORK

Al-Otaibi (2012) stated that many expected and urgent changes imposed on the organization, its management, and its employees required continuous improvement. The emergence of modern technologies requires changing the methods of carrying out business and the implementation of its activities to be in line with modern technologies, the constant change, and to meet the demands of the customer. The difference between businesses requires reviewing the procedures and legislation to be consistent with the nature of the new business and the difficulty of achieving perfection and mastery in the business. The continuous development must seek either better growth or rectify errors (Al-Ta'i and Qadada 2008).

Rahma (2019) indicated that the importance of the process of continuous improvement in any institution lies in: predicting mistakes before they occur to prevent them from occurring, identifying day-to-day work problems, identifying appropriate methods or means to solve them, identifying any defects during the implementation of operations, and finding a system that aims to motivate workers to double their efforts.

Bakr (2016) believes, through the Kaizen methodology, that continuous improvement has positive effects on the organization by enabling human resources, accessing new capabilities and creativity, teamwork, reducing errors and waste in cost, money, and effort. In addition to improving productivity, motivating individuals to form friendly relations with their association, removing all administrative obstacles and routine procedures for clients and beneficiaries.

Samurai and Kanani (2014) believe that integration between improvement planning and strategic organization planning puts quality in the organization in a strategic position. It is carried out by rooting the concept of quality in the organization's culture and its daily activities and encouraging the culture of the organization that is committed to improving quality and making it a major focus in its daily plans.

Dawood (2011) and (Attia, 2007) summarized the steps for continuous improvement with the following steps:

1. Identification: a. in this step, what will be improved is determined by defining the objectives, processes, roles, responsibilities and initial assessments of the plan and the goal of the improvement. b. Realizing the educational departments' need to change and improvement. c. Reviewing and examining various methods and concepts of total

quality management and searching for modern improvement concepts and mechanisms. d. Preparing an integrated plan for training the educational institution and that the identification process must be based on accurate scientific field study and careful analysis that makes the goals that the institution will adopt correct.

2. Analysis: This includes analyzing what we need to know before changing it. The aim of the analysis is to:

a. Explain the reason for the effects of the system that we wish to improve.

b. Measuring the performance of operations and the system.

c. Setting research questions, such as: How does the problem occur? When did it occur? And why did it occur? And why did it occur?

e. Data collection and use in the process of continuous quality improvement that has been improved.

3. Development: The data are used to indicate the changes that will be accompanied by continuous improvement. The results are tested with assumptions about changes and solutions that will reduce the problem.

Based on Deming cycle for continuous improvement (Aqili, 2009) and (Peter, 2015) mentioned these steps for improvement:

- Plan: Plan any improvement you want to make in any area (product design, product manufacture) and use Pareto analysis to identify the areas that need more improvement.
- Do: The work is carried out according to the prepared plan. During the implementation, errors and possible causes are revealed, and the most likely ones to occur.
- Check: Check and detect whether your ideas and solutions are correct and workable.
- Act: If you achieve success, implement the solutions quickly and leave everything unsuccessful. Everything must be set as criteria to benefit from it and make it part of the organization's strategy.

### III. PREVIOUS STUDIES

Qaliwan (2019) conducted a study aimed at evaluating the continuous improvement in the colleges of the University of Mossadakh. The descriptive approach was followed by applying a questionnaire to (125) male and female students. The results showed that the colleges do not have much interest in the process of continuous improvement according to the students' point of view, and that the college is very interested in conducting competitive competitions among students.

Othman (2017) conducted a study that aimed to reveal the effect of using the kaizen strategy on the performance of Bisha University in the Kingdom of Saudi Arabia. To achieve the study objectives, the descriptive analytical approach was followed through applying a questionnaire to (80) academic members. The study results showed a positive relationship between applying the kaizen strategy, improving the educational process at the university, improving the administrative process, and improving the university's social outcomes.

Khazaaal and Jasim (2017) conducted a study aimed at evaluating the performance of the internal departments in the Technical College in Kirkuk from the students' point of view in light of the elements of organization, arrangement, hygiene, maintenance, discipline and safety by applying a questionnaire consisting of (30) items, to a

sample of (104) students. The results of the study indicated that the degree of evaluation of the performance of the internal departments from the students' point of view came at a low degree in all fields, and that the evaluation of female students came higher than the evaluation of male students in all fields. The results also revealed that there were significant differences in the responses of students according to the gender variable and the differences came in favor of female students.

Mohsen (2017) conducted a study aimed to reveal the role of the environmental sustainability strategy of the university educational institution in achieving continuous improvement in its performance. The study was applied in several university colleges in Basra Governorate in Iraq. The study was applied to (50) faculty members in private and government colleges in Basra Governorate. The results of the study showed that the participants lacked the clear and practical knowledge of the concept of a strategy for sustaining the university environment and its role in influencing the improvement of its internal processes and activities.

Bughlita (2017) study aimed at identifying the possibility of applying the Six Sigma model to improve the quality of higher education. The descriptive approach method was used by applying a questionnaire to (35) academic members in the Faculty of Economic and Commercial Sciences at the University of Skikda. The results of the study showed that the degree of application of the total model came with a moderate degree within the field of support of higher management to improve the quality of education, and a low degree in the field of feedback, and human resources.

Haramsha (2015) study aimed to identify the level of continuous improvement in teaching and learning for quality insurance in Jordanian and new techniques to ensure the quality of higher education. (100) questionnaires were applied to the members' faculty of Zarqa University, Hashemite University, Al Balqa University. The results revealed that higher education institutions use continuous development and improvement at a moderate degree and that the most important obstacles facing continuous improvement are the literal adherence to the study plan.

Bani Ahmad and Hawamdeh (2015) conducted a study aimed at identifying the reality of continuous improvement in advanced Jordanian universities to obtain a quality assurance certificate. A questionnaire consisting of (45) paragraphs was distributed to (59) department heads in the Zarqa University, Petra University, and Philadelphia University. The results of the study showed that the level of continuous improvement came to a moderate degree and that the most important obstacles that prevent continuous improvement are: the incentives and rewards are not related to the efforts of continuous improvement and the lack of training for officials on methods of continuous improvement.

Dahleez (2015) studied the link between internal service quality (ISQ) and customer service quality (SQ) and the effects of demographics (gender, age, education, affiliation, and position) on that link. The sample of the study consisted of (543) academic and administrative staff in three universities and three university colleges in Gaza Strip. The results supported the availability of direct and positive relationships between three dimensions of ISQ (tangibles, assurance, and responsiveness) and SQ.

Feijoo et al (2014) conducted a study aimed at introducing the Kaizen strategy and its methods of employment to improve total quality management in higher education. The researchers followed the descriptive approach. The

study concluded that the application of work with team spirit, personal discipline, morale, quality measures, and suggestions Continuous improvement contributes to changing administrative and academic practices in universities, as well as improving and developing quality management for its operations and activities.

Dudin and Msaeda (2014) conducted a study aimed at identifying the extent of the use of (Six Sigma) concepts in Jordanian public and private universities and their role in the continuous improvement of services and operations in those universities. A questionnaire consisting of (32) items was applied to a sample of (269) academic staff. The results of the study revealed that the Sigma model is new in Jordanian universities and that there are obstacles that prevent proper application, including the weakness of qualified human cadres, and the weak financial resources needed for the application. It also indicated the lack of academic leaders' desire to apply the process.

Santarisi and Tarazi (2010) conducted a study aimed at examining the relationship between the six TQM practice element, that are presented in the Baldrige Education Criteria for Performance Excellence framework and the performance results in the Faculty of Engineering at the University of Jordan from the viewpoint of its faculty members. The results of the study showed that the standards of leadership and focus on students and the market have the most positive effects on operational and financial performance.

#### **IV. STUDY METHODOLOGY**

This study followed the descriptive analytical approach, as it examined the level of performance improvement indicators in private Jordanian universities.

##### ***Study Population***

The study population consisted of all academic members working in private Jordanian universities (Irbid National University, Jerash University, Al-Ahliyya Amman University, and ASU) including (757) academic members. The study population consisted of all the (1515) administrators working in those private universities according to the statistics of those universities in the first semester of the academic year 2019/2020.

##### ***Study Sample***

The researcher applied the study to a random stratified sample of academic members, and members of the (1138) administrative cadre in private Jordanian universities (Irbid National University, Jerash University, Al-Ahliyya Amman University, and the ASU) of whom (396) academic members, and (742) administrative members. Table (1) shows this.

Table 1 : Distribution of Study Sample Individuals According to their Variables

Variable	Category	No.	Percent
Accreditation attribute	Not certified with quality	358	31.5
	certified with quality	780	68.5
	Total	1138	100.0
Job position	Academic member	396	34.8
	Administrative member	742	65.2
	Total	1138	100.0

### ***Study Instrument***

To achieve the objectives of the study, the theoretical literature and previous studies that dealt with continuous improvement in universities were examined. A questionnaire was constructed of (25) items distributed in four dimensions: planning, implementation, review and correction.

### ***The Content Validity of the Instrument***

To check the validity of the study instrument, it was presented to (14) arbitrators from the academic members at Yarmouk University in the Department of Management and Foundations of Education and Al-Balqa Applied University to examine the suitability of the paragraphs and to examine their language formulation, deleting inappropriate paragraphs, or suggesting any modifications. The arbitrators' suggestions were considered, and the last copy of the questionnaire consisted of (20) items.

### ***Statistical Standard for Analyzing Sample Responses***

To determine the degree of improvement indicators in private Jordanian universities and for each field, the following statistical standard was used as shown in Table (2).

Table 2 : Statistical Standard for Analyzing Sample Responses

<b>Mean</b>	<b>Level</b>
1.00-1.80	Very low
1.80-2.60	low
2.60-3.40	moderate
3.40-4.20	high
4.20-5.00	Very high

### ***Study Variables***

The study included the following variables:

*Accreditation attribute:* Not certified with quality and certified with quality

*Job position:* It has two categories: (an academic member, an administrative member).

The overall improvement indicators in private Jordanian universities: represented by the arithmetic mean of the responses of the participants on the paragraphs and fields of overall improvement indicators in private Jordanian universities.

## **V. RESULTS**

**Results of the first question:** "What is the level of the educational quality improvement indicators in private Jordanian universities that received accreditation and non-accreditation from the perspective of academic and administrative staff therein?"

To answer this question, means and standard deviations for the responses of the participants are calculated on the study instrument paragraphs related to the overall indicators of improvement, and each of its fields (planning, implementation, review, and correction) as shown in Table (3).

Table 3: Means & SD of the Responses of the Participants on the Study Instrument Paragraphs Related to the Overall Improvement Indicators and its Fields

No.	Improvement indicator	*mean	SD	Rank	Level
1	planning	3.58	1.07	1	high
3	review	3.46	0.93	2	high
4	correction	3.45	0.92	3	high
2	implementation	3.37	0.96	4	moderate
	<b>Overall</b>	<b>3.47</b>	<b>0.86</b>		<b>high</b>

Table (3) showed that the overall level of the improvement indicators was (high) with the mean (3.47) and SD (0.86). The first field (planning) ranked first with the mean (3.58) and a (high) degree, followed by the third field (review) with the mean (3.46) and a (high) degree. The fourth field (correction) came in third position with the mean (3.45) and a (high) degree also, while the second field (implementation) came in last rank with the mean (3.37) and a (moderate) degree.

The researcher believes that the pursuit of private universities to develop academic and administrative performance by adopting the philosophy of comprehensive quality and applying quality standards and principles set by the Higher Education Institutions Accreditation Commission in Jordan and its indicators related to academic members, students, leadership, study programs, and teaching methods contributed to raising the level of continuous improvement as they recognize that obtaining golden, silver, and bronze quality certificates contributes to raising their level and obtaining advanced rankings in comparison with other Jordanian public and private universities, and because the application of quality strategy is an unavoidable requirement. It also contributes to attracting Jordanian and Arab students to study in these universities. And all of that requires those universities to start from sound strategic planning that is based on the reality of universities and its outlook. Therefore, these plans are extended to include every member of the university. For this purpose, those universities seek to continuously review the plans that are developed and implemented, and then correcting the deviations associated with students, academic and the administrative staff.

This result of this study differs with the results of the Bani Ahmed and Hawamdeh (2015), which indicated that the level of continuous improvement in Jordanian universities that applied for a quality assurance certificate came with a moderate degree. It differs with the results of the Haramsha (2015), which showed that the extent to which higher education institutions in Jordan have applied for continuous improvement and development to ensure the quality of higher education is of a moderate degree. It also differs with the results of the Khazal and Qasim (2017), which showed that the level of the elements of organization, hygiene, maintenance, and discipline in the Technical College in Kirkuk came with a low degree. In addition to its difference with the results of the Qaliwan (2019) study, which showed that the level of continuous improvement at the University of Amsada in Algeria is not within the desired level.

**Results of the second question:** "Are there statistically significant differences at the level of statistical significance ( $= 0.05 = \alpha$ ) between the arithmetic mean of the responses of the study sample on the overall items of the study instrument related to the improvement indicators and each of its fields attributable to the variable of accreditation characteristic.?"

To answer this question, the overall arithmetic means and the standard deviation of the study sample's responses were calculated on the study instrument items related to the indicators of improvement as a whole, according to a variable (accreditation attribute), and Table (4) shows that.

Table 4: The Overall Means and the SD of the Responses of the Participants on the Items of the Study Instrument According to the Variable (Accreditation Attribute)

Accreditation attribute	Mean	SD
Non-accredited	2.23	0.27
Accredited	4.04	0.15

Table (4) showed that there is a apparent difference between the means of the study sample responses on the study instrument's items related to the overall indicators of improvement according to the variable (accreditation attribute), and to determine the statistical significance of these apparent differences, a t-test was applied as indicated in Table (5).

Table 5: The Results of the t-test for the Means of the Study Sample Responses for the Study Instrument Items Related to the Overall Indicators of Improvement According to the Variable (Accreditation Attribute)

Variable	accreditation attribute	Mean	SD	T value	df	sig
	Non-accredited	2.23	0.27	<i>*145.967</i>	<i>1136</i>	<i>0.000</i>
	Accredited	4.04	0.15			

Table (5) showed that the value of the statistical significance of the accreditation attribute variable was (0.000), which is less than the level of statistical significance ( $\alpha$ - 0.05) ; which indicates that there is a statistically significant difference at the level of statistical significance ( $\alpha$ - 0.05) between the two arithmetic mean for the responses of the study sample on the items of the study instrument related to the overall indicators of improvement attributed to the variable of the accreditation attribute. Table (5) shows that the statistically significant difference is shown in favor of (universities that have accredited quality).

The researcher believes that this result is logical, as obtaining accreditation and golden, silver and bronze quality assurance certificates are the results of applying the principles and standards of the accreditation body in Jordan, and this also indicates the increase in the level of improvement of performance indicators because it focuses on developing university performance in various fields. The researcher did not find a previous study that dealt with the accreditation attribute variable to compare its results with the results of the current study.

The means and standard deviations for the study sample responses for each field of study instrument related to indicators of improvement (planning, implementation, review, and correction) were calculated according to the variable (accreditation attribute) as shown in table (6).

Table 6: Means and SD of the Participants Responses on each Field of the Improvement Indicators, According to the Variable (accreditation Attribute)

Improvement indicators	Accreditation attribute					
	Non-accredited		Accredited		Total	
	Means	SD	Means	SD	Means	SD
Planning	2.14	0.44	4.24	0.44	3.58	1.07
Implementation	2.26	0.52	3.88	0.63	3.37	0.96
Review	2.21	0.43	4.03	0.38	3.46	0.93
Correction	2.28	0.45	4.00	0.45	3.46	0.92

Table (6) indicates that there are apparent differences between the means of the participants responses on each field of the improvement indicators (planning, implementation, review, and correction), according to the variable (accreditation attribute), and to determine the statistical significance of these apparent differences, one way MANOVA was applied as shown in Table (7).

Table 7: MANOVA of the Means for Study Participants Responses for each Field of Study Instrument Related to Improvement Indicators, According to the Variable (Accreditation Attribute)

Source of variance	Improvement indicators	SS	DF	MS	F value	sig
<b>Accreditation attribute</b> <b>Hotelling's Trace=22.685.</b> <b>Sig=*0.000</b>	planning	1076.758	1	1076.758	<b>*5508.689</b>	<b>0.000</b>
	implementation	645.874	1	645.874	<b>*1790.223</b>	<b>0.000</b>
	review	809.790	1	809.790	<b>*5263.227</b>	<b>0.000</b>
	correction	726.476	1	726.476	<b>*3533.106</b>	<b>0.000</b>
<b>Error</b>	planning	222.049	1136	0.195		
	implementation	409.845	1136	0.361		
	review	174.783	1136	0.154		
	correction	233.584	1136	0.206		
<b>Modified total</b>	planning	<b>1298.807</b>	<b>1137</b>			
	implementation	<b>1055.719</b>	<b>1137</b>			
	review	<b>984.572</b>	<b>1137</b>			
	correct	<b>960.060</b>	<b>1137</b>			

Table (7) shows that the value of the statistical significance according to the variable (accreditation attribute) reached (0.000) which is less than the level of statistical significance ( $\alpha= 0.05$ ) which indicates a statistically significant difference in at least one of the areas of the study instrument related to the improvement indicators (planning, implementation, and correction). It also shows that the statistical significance values for all fields according to a variable (accreditation attribute) are less than the level of statistical significance ( $\alpha= 0.05$ ) which indicates a statistically significant difference at the level of statistical significance ( $\alpha= 0.05$ ) between the arithmetic mean of the participants' responses on the field (planning, implementation, and correction) attributed to the variable of the accreditation attribute. Table (7) shows that a statistical significance difference that is in favor of (universities that accredited quality insurance).

**Results of the third question:** "Are there statistically significant differences at the level of statistical significance ( $\alpha= 0.05$ ) between the arithmetic mean for the participants' responses on the overall items of the study instrument related to the improvement indicators and each of its fields attributable to the variable of the job position?"

To answer this question, the means and the standard deviation of the study sample responses for the overall items of study instrument related to the improvement indicators were calculated according to a variable (job position) as shown in Table (8).

Table 8: The Means and the SD of the Study Sample Responses on the Overall Items of the Study Instrument, According to the Variable (Job Position)

Job position	means	SD
Academic member	3.46	0.86
Administrative member	3.47	0.87

Table (8) indicates that there is a apparent difference between the means for the study sample responses on the overall items of study instrument related to the improvement indicators, according to the variable (job position), and to determine the statistical significance of these apparent differences, a t-test was applied as indicated in Table (9).

Table 9: The Results of the t-test for the Means of the Study Sample Responses for the Overall Items of the Study Instrument Related to the Improvement Indicators, According to the Variable (Job Position, Years of Experience)

Variable	Job position	Means	SD	t value	Df	Sig
	Accredited	3.46	0.86	-0.113	1136	0.910
	Non- accredited	3.47	0.87			

Table (9) shows that the value of the statistical significance of the variable “ job position” was (0.910), which is greater than the level of statistical significance ( $\alpha= 0.05$ ) which indicates that there is no statistically significant difference at the level of statistical significance ( $\alpha= 0.05$ ) between the two means of the participants' responses on the overall items of study instrument related to the improvement indicators attributed to the variable of the job position.

This result indicates that the academic and administrative staff agree that the level of the performance indicators in private universities within the areas of planning, implementation, correction, and review came to a high degree. This also indicates the actual reality in those universities, which may be attributed to the adoption of a comprehensive quality philosophy and the pursuit of quality assurance certificates from the Jordanian Higher Education Accreditation Authority, which requires the actual application of these principles in all aspects of the educational institution. The actual application of improvement indicators reflects positively on the reality of university, and this what the academic and the administrative staff realize. Means and standard deviations for the study sample responses for each field of the study instrument related to the improvement indicators (planning, implementation, review, and correction) were calculated according to the variable (job position) as shown in Table (10).

Table 10: Means and SD of the Responses of Study Sample on each Field of the Study tool Related to the Improvement Indicators, According to the Variable (Job Position)

Improvement indicators	Job position					
	Accredited		Non- accredited		Overall	
	Mean	SD	SD	Mean	SD	Mean
Planning	3.58	1.04	3.58	1.08	3.58	1.07
Implementation	3.37	0.96	3.37	0.97	3.37	0.96
Review	3.44	0.94	3.47	0.92	3.46	0.93
Correction	3.47	0.94	3.46	0.91	3.46	0.92

Table (10) indicates that there are significant differences between the means of the study sample responses on each field of the study instrument related to the improvement indicators (planning, implementation, review, and correction), according to the variable (job position), and to determine the statistical significance of these significant differences, One way MANOVA was applied as indicated in Table (11).

Table 11: MANOVA of the Means of the Responses of Study Sample on each Field of the Study Instrument Related to the Improvement Indicators, According to the Variable (Job Position)

Source variance	Improvement indicators	SS	Df	MS	F value	Sig
<b>Job position Hotelling's Trace=0.002.Sig=0.786</b>	<b>planning</b>	0.002	1	0.002	0.002	0.969
	<b>implementation</b>	0.001	1	0.001	0.001	0.985
	<b>review</b>	0.311	1	0.311	0.359	0.549
	<b>correction</b>	0.051	1	0.051	0.060	0.806
<b>Error</b>	<b>planning</b>	1298.805	1136	1.143		
	<b>implementation</b>	1055.718	1136	0.929		
	<b>review</b>	984.261	1136	0.866		
	<b>correction</b>	960.009	1136	0.845		
<b>Modified total</b>	<b>planning</b>	<b>1298.807</b>	<b>1137</b>			
	<b>implementation</b>	<b>1055.719</b>	<b>1137</b>			
	<b>review</b>	<b>984.572</b>	<b>1137</b>			
	<b>correction</b>	<b>960.060</b>	<b>1137</b>			

As shown in Table (11) the value of the statistical significance according to the job position variable reached (0.786) which is greater than the level of statistical significance ( $\alpha= 0.05$ ), which indicates that there is no statistically significant difference at the level of statistical significance ( $\alpha= 0.05$ ) between the two averages The means of the participants responses on the field (planning, implementation, and correction) is attributed to the variable of job position.

## VI. RECOMMENDATIONS

Considering the results, the researcher recommends the following:

- Encouraging officials in non-accredited private Jordanian universities to take advantage of the experiences of accredited private Jordanian universities with accreditation and quality certificates in the area of improving performance indicators.
- Encouraging officials in private Jordanian universities to pay attention to the implementation of academic development programs, students, plans, and programs.
- Encouraging private Jordanian universities to benefit from the experiences of some international and Arab universities in the field of improving performance indicators.

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