University leadership styles using the Kaizen approach

Estilos de liderazgo académico utilizando la metodología Kaizen

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Abstract

The current research seeks to enhance current university leadership styles by using the Kaizen approach from a university leadership point of view it also highlights the requirements needed to improve university leadership by applying the Kaizen approach. To achieve these objectives, the research uses the questionnaire as a tool to collect research data and applies this to the leaders, faculty, and staff of four universities in the MENA area. The research sample consists of 160 individuals (including deans, co-deans, department heads, faculty, staff, and employees) from four different universities. The research concluded with several results, from which the majority of the sample first agreed that there is a lack of a Kaizen approach culture among university leadership, and also agreed on the importance of applying Kaizen principles as a model for enhancing university leadership.

Keywords: Kaizen, universities, leadership, Higher education, management, enhancement.

Resumen

La investigación tiene como objetivo mejorar los métodos de liderazgo universitario utilizando el enfoque Kaizen desde el punto de vista de los empleados universitarios, y también destaca los requisitos para mejorar el liderazgo universitario mediante la aplicación del enfoque Kaizen. Para lograr estos objetivos, la investigación utilizó el cuestionario como herramienta de recolección de datos de investigación, y se aplicó a líderes, docentes y empleados de cuatro universidades de la región de Medio Oriente y África del Norte, donde la muestra de investigación estuvo conformada por 160 individuos. (incluidos decanos, jefes de departamento, profesores y empleados) de cuatro universidades diferentes. La investigación concluyó con varios resultados, la mayoría de la muestra coincidió en la débil aplicación de la metodología Kaizen entre los líderes universitarios, así mismo coincidieron en la importancia de aplicar los principios Kaizen como modelo para el fortalecimiento de los líderes universitarios.

Palabras clave: Kaizen, universidades, liderazgo educativo, estilos de liderazgo, desarrollo, educación superior.

Introduction

Organizations often seek to improve the quality of their management, and in this context, they search for the most effective and newest methods to support their institutional system. Currently, universities wish to be acknowledged as a source of good-quality higher education. As such, they constantly strive to discover innovative ways of performance enhancement.

Universities, as an educational sector, are currently one of the most dynamic sectors today and, as such, need tools to create and monitor quality improvement for each aspect of their managerial processes. Relying on this, many developing countries have recognized the importance of higher education and have committed themselves to the development of the workforce by providing policy support and substantial funds to create one of the world's largest systems of higher education (Naik, 2004). The challenges faced by universities, such as students demanding continuous excellence in

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higher education, raising standards of accreditation, and competitiveness between universities, mean that traditional styles for the quality management of education, administration, and modern strategies of universities must be altered (Khayum, 2017). One of the more recent trends in university leadership is the methodological Kaizen approach, with its essence emphasizing the encouragement of innovation and change, demonstrating confidence in the ability and participation of staff in defining the objectives of the organization, and empowering them administratively; thus, it contributes to making them more aware of the tasks that they are assigned, and more capable of completing them, thus increasing the global competitiveness of universities (Thessaloniki, 2006).

The Kaizen model also contributes to the enhancement of the performance of the university and goes forward with the process of improvement in every aspect of their operations. Thus, the desired improvement of universities as educational institutes can be very well fulfilled by applying Kaizen. What is the meaning of 'Kaizen'? Kaizen is a Japanese word consisting of two phrases: Kai meaning changing and Zen meaning for the better; that is, the whole word means changing for the better (Eteir, 2007). Kaizen is a Japanese philosophy that refers to continuous and gradual improvement. It focuses on all institute management aspects, social, personal, and practical, and connects quality and improvement (Imai, 1989); therefore, it is a suitable leadership approach for organizations that need quality, change, and improvement. This type of management, which one could call Japanese management, has emerged as a new, organized, and effective management style that has proven its effectiveness in changing management for the better.

In the context of the continuity of improvement, and regarding Japanese management, *kaizen* means "continuous improvement", involving the entire workforce from top management, to middle managers and workers (Lindell, 2014). Kaizen philosophy emphasizes continuous and gradual improvement, which allows major change and provides a basis for collecting the factors of success, such as the key concepts of strategic planning, assessment, and total quality management (Muffo & Krallman, 1992); therefore, it is a way to create leadership change within the university community. This has given the researcher the motivation to conduct this research, with the hope of contributing some of this research to highlight Kaizen as an efficient,

effective, and systematic approach for university leadership change, which is needed.

This research aims to:

- Identify university leadership regarding the Kaizen approach from the perspectives of university leaders and staff members.
- Highlighting the requirements for improving university leadership by applying the Kaizen approaching light of its principles.

The research seeks to answer the following questions:

1. How does the Kaizen approach to leadership relate to higher educational institutions in the MENA area?
2. What are the requirements for improving university leadership by applying the Kaizen approaching light of its principles?

This research contributes significantly to extending the current literature relating to improving university management by reviewing previous studies that have processed Kaizen as a leadership approach at universities or higher education institutes all over the world. It attempts to close the gap in the current literature regarding applying Kaizen in the educational sector. The research also emphasizes universities' need for changing their traditional leadership styles and approaches, to the present time that is characterized by scientific and economic change. The research thus stresses the necessity of transformation towards modern styles of leadership, especially in universities, as they are a resource for future workforces. The current research, therefore, highlights Kaizen as a proposed approach. This is a Japanese strategy that aims to create major changes in university leadership and continuous improvement over all aspects of university leadership. The research also highlights the leadership styles regarding Kaizen in the MENA area, where leaders are usually resistant to changes and are used to depending on traditional leadership styles.

Literature Review

The Kaizen Concept

Kaizen literally means continuous improvement, which can be applied to steadily enhance our personal, family, social, and work lives. Concerning organizations, Kaizen means continuous improvement for all human resources, leaders, and employees alike (Imai,

1997). We can also define Kaizen in a strategic context as systematic actions that have been taken to accumulate improvements and enable organizations to beat their competition. (Macias et al, 2017).

Kaizen is a system that calls for teamwork and cooperation; it comprises human aspects, such as self-esteem and creativity. It is a strategic approach that is used to achieve the aims of an organization (Keijiro, 2018). For some researchers, Kaizen is a kind of philosophy for management that creates changes or gradual improvements in work systems or processes, reduces waste, and thus improves work performance, Salah, S. A., & Sobhi, N. (2018) It must also be mentioned that Kaizen, within the literature review, means quality management, and relates to lean management.

The Kaizen approach has been given many definitions during its development phase; however, they all focus on continuous improvement.

Within the Kaizen approach study, there are many concepts, the most important of which are as follows:

- KAIZEN - continuous improvement
- KAI – change
- ZEN - good (do better)
- GEMBA – the actual physical place where each employee works, the place where we add value
- GEMBUTSU – the unconformable physical/touchable element (out-of-order equipment, scrap)
- MUDA – loss, scrap, scantling, any activity or process that is not worthy
- PDCA – the cycle of 'Plan, Do, Check, Act' to standardize and prevent the recurrence of nonconformities (Titu, 2010)

The previous concepts must be realized by leaders for the successful application of Kaizen, in addition to the key points of Kaizen, which will be illustrated in the following section.

The main principles of Kaizen

For Imai, who established Kaizen, advancement and continuous enhancement correspond to the basic thought of a procedure in progressive improvement. Kaizen arrangements underline good judgment, ease, change, and continuous improvement. This philosophy advocates the utilization of normal sense and straightforward arrangements.

Kaizen philosophy refers to the ability to step back from all activities, observe the current situation, and propose appropriate improvements or solutions to problems (Abdulmouti, 2018).

There are five primary principles for Kaizen. Contingent upon collaboration, as every opinion is esteemed and considered, and utilizing each contribution as a prop to accomplish constant enhancement, Kaizen rationality perceives that there is dependably an opportunity to get better. Last, the Kaizen methodology depends on the quality of circles and workgroups that cooperate to take care of issues and can finish with creative changes.

The application process of a Kaizen event contents of:

1. Definition of the area to be improved
2. Key problem analysis and selection
3. Identification of the cause for improvement
4. Improving project implementation
5. Measuring, analyzing, and comparing results
6. Standardizing systems.

On the one hand, the application of the Kaizen principles supposes a continuous dialogue between the manager and the employees (vertical communication); on the other hand, it supposes a dialogue between the employees on the same hierarchical level (horizontal communication) (Titu, 2010).

The Kaizen concept also incorporates three key principles in one work method:

- *Commitment and persistence*: Improvement will not be achieved if there is no clear and strong motivation to seek and implement improvement, or if this effort is not sustained in the long term. The approach is a philosophy that should be adopted at work.
- *Small and incremental processes*: The Kaizen approach is against radical change, and its key methodology is to proceed by frequent small, but controlled attempts at improving practice.
- *Participative*: In an organizational context, the adoption of the philosophy by one employee alone would be pointless. Thus, it is important that all employees and departments within an organization adopt and practice the Kaizen work method (Leseure, 2010, p.192).

Kaizen and university leadership

According to the development of leadership and its theories, there has been a growing interest in the role of leaders, especially within higher education (HE) institutions, in recent years. This interest has been driven both by the influence of HE institutions in developing learners who will later act as leaders in the wider society and by the changing shape of HE leadership itself in the face of global challenges in the sector. In this context, Kaizen appears to be a suitable method to use for university leadership; hence, one of the main elements of implementing Kaizen is the serious commitment of the leader (Swartz and Graban, 2013).

Kaizen is a system of continual procedures undertaken by an institute to improve its activities and processes, with the objective of improving the quality of educational and managerial aspects so that universities can meet their full potential (Reddy and Karim, 2014).

This approach has its origins in the fifth of W. Edwards Deming's 14 management points: "Improve constantly and forever the system of production and service" (Deming, 1982). It is commonly expressed as "continuous improvement." Deming represented continuous improvement as the repeated application of the cycle of Plan, Do, Study, Act (PDSA) to all activities in higher education institutions, in the pursuit of making them even better in terms of delivering value to society. Thus, according to the meaning and principles of Kaizen as mentioned in the previous section, the suitability of this approach to lead universities successfully becomes clear. However, the question that arises here is, what can the Kaizen approach introduce to the university leader? let us discuss the answer briefly in the next section.

The need for the Kaizen approach in university leadership

The difficulties experienced in HE over recent decades have promoted the emergence of several leadership approaches which can be observed in many universities within the educational sector, including hierarchical models, individualistic models, collegial models, collaborative models, and transformative models (Black, 2015).

The leadership style that continues to prevail in universities can be criticized on two main grounds – first, that it fails to sufficiently develop robust styles of professional management (and can even be accused of perpetuating a 'cult of the amateur'); and second, that it encourages conventional thinking and behavior that goes unchallenged because most university leaders have been bred within the system (Khayum, 2017).

Thus, universities need to develop new models of leadership to provide the increased intellectual resources that they need to make sense of the highly complex political, economic, social, and cultural landscapes of the modern 21st-century world (Khayum, 2017).

It is worth mentioning that the Kaizen model has already been used in various universities and higher education institutes all over the world and has proven its validity regarding continuous improvement and maintaining success in both academic and managerial aspects. For example, it has been used in Ireland (Irish University with over 20,000 students and over 2,700 staff members) as a tool for continuous improvement (O'Reilly, Seamus, et al, 2017). Additionally, in the USA, for example, Kaizen is used to improve graduate business school degree programs. The study has suggested that Kaizen can help higher education institutions compete more effectively against both traditional non-profit, and newer for-profit sources of higher education (Emiliani, 2005).

In Germany, there is an example of Kaizen being used to evaluate teaching quality in terms of time, and to facilitate the short-term reaction of lecturers (Kregel, 2017).

In the Kingdom of Saudi Arabia, a study was conducted at 19 public universities to study the performance levels of Saudi universities in light of visual management and Kaizen concepts in different aspects (administrative, social, economic, and political), where the study recommended using Kaizen to measure university performance (Barhamin, 2012).

Based on the previous models, Kaizen, as a model for leadership, has proven its ability for continuous progress.

Implementing the Kaizen approach in universities

Many factors help to attain successful change, which leads to continuous improvement through the Kaizen approach. Antony et al. (2012) identified seven critical success factors for the successful deployment of Kaizen in universities: (i) leadership support and commitment; (ii) effective communication at all levels; (iii)

strategic and visionary leadership; (iv) develop readiness within the university; (v) be sure about available resources and skills to facilitate implementation; (vi) selection of programs and prioritization; and (vii) change organizational cultures.

Salewski and Klein (2009) developed five steps to launch Kaizen in universities, which are mentioned, in brief, below:

Step one: Find early adopters who have an initial interest or need to improve their processes.

Step two: Make it clear that "transactional lean" is different and sometimes more difficult than "manufacturing lean".

Step three: Create and use a central improvement office that will support departmental leaders and early adopters in their efforts to launch continuous improvement activities.

Step four: Once a department is selected to undertake the initial launch of lean processes at the university, determine what the initial trial *Kaizen* events should be.

Step five: Spread the effort to other university areas after the first event is completed, and identify additional university departments that show an interest in starting a lean initiative.

Al-Harbi, 2017 proposed a further system to implement Kaizen in universities. He proposed steps and then illustrated them through the following shape:
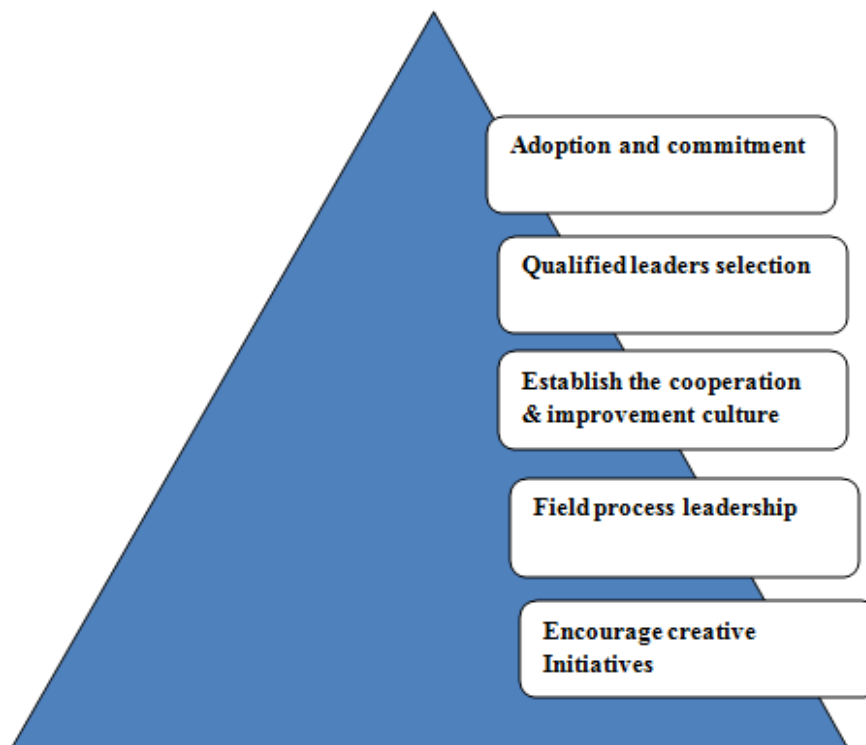

Figure 2. Requirements for university leadership improvement Al-Harbi 2017, p. 254

Research methodology

This research uses the analytical descriptive approach, as it is the most suitable approach for the nature of the current research. This approach is used for quantitative data that require statistical assistance to extract information from them (Leedy, 1981, p.124). This helps to describe the perspectives of the research sample, identify prominent patterns of the studied subject, and then facilitate the analysis of the data.

Overview of selected Arabian universities

This research selected four universities located in the MENA area in four different countries (Egypt, Tunisia, Jordan, and Saudi Arabia), with two of them being located in Asia and the other two in Africa. These are the most well-known universities in the region. The next section introduces a brief description of each university.

University of Kairouan: The University of Kairouan was established in 2004 and is located in Kairouan city. It is officially accredited by the Ministry of Higher Education and Scientific Research, Tunisia, with a rank enrolment range of 10,000-14,999 students. It offers programs that lead to many academic degrees that are granted by the university, such as pre-bachelor's degrees (that is, certificates, diplomas, and associate's or foundation degrees), as well as bachelor's, master's, and doctorate degrees in several study fields. These higher-education institutions have a selective admission policy depending on entrance examinations. The rate of admission ranges from 60% to 70%, making this Tunisian university a selective institution to some extent. It allows enrolment for international applicants.

Northern Border University: Northern Border University was built in 2007. It is located in Saudi Arabia in the city of Arar. The university comprises 12 colleges granting many degrees, such as bachelor's and master's degrees. Northern Borders University represents the last competing university of education blocks, in terms of the coverage of all regions. It receives approximately 3,000 applications from across the globe annually. The university started with seven different schools of learning, including Historical Studies, Environment, and Ecological Studies, Buddhist Studies, Philosophy, and Comparative Religion, Languages and Literature, International Relations and Peace Studies, Information Sciences and Technology, and Business Management schools. It also comprises many colleges in different specializations, such as the Faculty of Medicine, Faculty of Business Administration, Faculty of Science, and the Faculty of Arts and Education. It also includes several Deanships that serve both students and staff, with the most important of them being the Higher Education Development Deanship, which works on advancing education at the university o keep up with global developments. Continuous Learning and Community Service Deanships help the community thrive.

The University of Jordan: The University of Jordan was established in 1962. It was chosen to be a distinctive university in all aspects, especially academic and research, seeking to keep up with international standards. It introduced and placed a wide range of academic programs in the hands of its students, allowing them to choose from more than 250 academic programs offered by 24 colleges. In various disciplines, it introduces 94 different programs in Medicine, Dentistry, Pharmacy, Nursing, Rehabilitation, Science, Agriculture, Engineering, Information Technology, Arts, Business Administration, Sharia, Law, Physical Education, Arts and Design, International Studies, Foreign Languages, Tourism, and Archaeology. At the postgraduate level, the university presents 38 Ph.D. programs, representing more than 50% of the Ph.D. programs in Jordan, and 111 Master's programs, representing approximately 25% of the Master's programs in Jordan, with the number of graduates reaching more than 200,000 globally. The graduates of the University of Jordan rank at 267 in the world in terms of employment reputation, according to QS 2018.

Cairo University: Cairo University is the second oldest university in Egypt and the third oldest in the Arab world. Its various faculties were established during the reign of Muhammad Ali (approximately 1820). After a popular campaign to establish a modern university, Cairo University was founded on 21 December 1908 under the name Egyptian University. It was later renamed the University of Fouad I and finally Cairo University after the revolution of 23rd July 1952. It includes a large number of university colleges. The university is located in the city of Giza, west of Cairo. Three Nobel laureates belong to Cairo University. In 2004, it was globally ranked among the top 500 universities worldwide and has over 155,000 students annually. This ancient university is known globally as the most famous among Arabian universities. It is one of the 50 largest institutions of higher education in the world by enrolment and offers all academic degrees at the postgraduate level. Several globally famous scientists have graduated from this university, including the well-known surgeon Magdi Yaqoub.

Research sample and population

The population of this research was made up of 160 leaders and employees of the selected four universities in the Arab region. The research sample was purposefully selected, as they are from the most famous universities in the region. The research sample's individuals were then chosen by sending e-mails to the selected universities' staff members, including the Dean, Co-dean, Department Heads, and other employees. There was a total of 160 leaders: 98 males, and 62 females. The following table explains the sample distribution:

Table 1.
Sample distribution of the selected universities.

List of universities, the population of academic leaders, and sample size				
Universities	**Country**	**Sample size**		
Cairo University	Egypt	40		
North border University	Kingdom of Saudi Arabia	54		
Qurawan University	Tunisia	29		
Jordan University	Jordan	37		
Total		**Male** **98**	**Female** **62**	**Total** **160**

Data Collection Tools

A questionnaire was developed as the main tool for collecting data and consisted of closed- and opened-ended questions derived from the research questions and their objectives. The questionnaire comprises three sections. Section (A) relates to the personal information of the respondent, and sections B and C are questionnaires on leadership styles in light of the Kaizen approach, and the requirements of applying the Kaizen approach to enhance leadership in Arabian universities, respectively. The first axis consists of 17 items that have been drawn from the previous literature and studies that are related to Kaizen principles, the second axis consists of 20 items that have also been developed, depending on previous studies.

The questionnaire consisted of statements to which participants responded by assigning a grade from 1 to 5, following the Likert scale.

Questionnaire reliability and validity

The reliability and validity of internal consistency were calculated as follows:

A. The Pearson correlation coefficient was used between the scores of each phrase and the total score of the topic to which it belongs.
B. The Pearson correlation coefficient was used between the scores of each topic and the total score of the questionnaire.

As the results of the Pearson correlation coefficients between all the questionnaire phrases and their totals are statistically significant at a level less than (0.01), which indicates the phrase's coherence, they are valid for the study sample application.

The researcher also calculated the consistency coefficient of the questionnaire to verify the validity and constancy of the content by calculating the internal consistency between its paragraphs (Cronbach's alpha coefficient). The questionnaire recorded a coefficient with a value of 0.871, which indicates the stability of the tool.

Data analysis

For the objective of processing and analyzing the research data, the SPSS program was used. The analysis was conducted depending on the correlations, frequency, and percentages of the research sample opinions, after which the means and standard deviations are presented in the next tables to illustrate the results of these analyses.

Results and discussions

This research identifies university leadership in terms of the Kaizen approach and highlights the requirements for improving university leadership by applying the Kaizen approach.

This section presents the analysis of the data collected to answer the research questions to achieve the mentioned goals.

A total of 160 respondents completed the questionnaire; thus, these data were used in the analysis. Regarding experiences, the results showed that the majority of the sample(40%) had between 5 and 10 years of experience, 31.25% of the sample had between 0 and 5 years of experience and 22.5% had more than 10 years of experience. The results further indicated that 56.2% of the individuals had a doctoral degree, followed by 37.5% who held a master's degree. The data analysis also indicated that the majority of the research sample was staff members, followed by Department Heads at 23.1%, while the lowest percentage was among the College Deans (see Table 2).

Table 2.
Description of the study sample according to research variables.

Variable	Category	Number	Percentage
Gender	Male	98	61.2%
	Female	62	38.7%
Experience	0-5	50	31.25%
	5-10	72	45%
	More than 10 years	36	22.5%
Position	Dean	20	12.5%
	Co-dean	30	18.7%
	Department chief	37	23.1%
	Staff member	63	39.3%
	Other	10	6.2%
Qualification	Doctoral	90	56.2%
	Master	60	37.5%
	Other	10	6.2%

The Statistical methods used in the analysis were:

Lower degree - scores arithmetic mean ranging from 1.00 to 2.49

Medium degree - scores arithmetic mean ranging from 2.50 to 3.49

High degree - scores arithmetic mean ranging from 3.50 to 5

For Toentify the reality of university leadership in light of the Kaizen approach (principles and dimensions of Kaizen), the arithmetic means and standard deviation ranking have been set out in Table 3to illustrate the results.

Table 3.
Leaders' perspective about the reality of university leadership regarding the Kaizen approach.

Rank according to the questionnaire	Item	Mean	Standard Deviation	Rank
11	The university seeks to enable workers, and maintain previous successes	3.99	0.85	1
9	University leadership always seeks change	3.98	0.99	2
6	Leaders present themselves in the workplace daily	3.99	0.98	3
17	Work procedures and the exchange of tasks inside the university depend on electronic webs or PCs, rather than paper, to avoid wasting time with moving between offices, and poor storage of important files	3.85	0.90	4
7	Leadership seeks to participate in all parts (for example, staff and employees) of the decision-making processes.	3.62	1.00	5
3	University leadership always measures the variables and analyses the data that are related to the problems in a regular way	3.24	1.08	6
14	University leadership focuses on reducing MODA, in its processes, resources, time, etc.	3.22	1.00	7
15	University leadership focuses on the processes more than the results	3.11	0.82	8
2	Problems and issues that need to be solved or changed are regularly identified within the university's departments	3.17	1.02	9
9	University leadership works to resolve problems immediately	3.5	0.71	10

16	University leadership tends to identify all issues and objectives that have no added value within the university, to overcome or eliminate them later	2.71	1.18	11
4	University leadership usually develops several solutions cooperatively to seek to experiment with a valid solution	2.3	1.51	12
8	University leadership accepts suggestions and ideas that benefit their work, regardless of their resources	2.1	0.89	13
12	The university staff and employees have the right to change in their field of work	2.1	0.80	14
5	University leadership seeks to apply the best solutions after experimenting with their validity regarding two aspects - academic and managerial	2	0.25	15
6	University leaders present themselves in the workplace daily	1.9	0.1	16
13	University leadership uses more thoughtful and creative methods and does not depend only on increasing effort	1.88	0.13	17
	Total	**2.4**	**0.82**	

Regarding leaders' perspectives about the reality of university leadership in light of the Kaizen approach, the previous table shows that the arithmetic means for the leaders' opinions is 2.4, which represents a weakness in the reality of university leadership in light of Kaizen, according to leaders' opinions. This also reflects those leaders still use traditional leadership styles in leading and managing university departments; this ensures the need for applying the Kaizen approach to maintain success and striving for continuous improvement for the university. These results are in agreement with Omar, 2018, who showed that the university staff at Menia University (Egypt) were not very knowledgeable about Kaizen as a style for leadership at the university. Additionally, a study by Al-Shareif and Al-Sahat (2014) in Tabuk (Kingdom of Saudi Arabia) emphasized the lack of knowledge regarding Kaizen among university staff and identified the need to disseminate Kaizen culture.

This agrees with Al-Salami 2017, who conducted a study to improve educational leaders' performance in Jeddah (Kingdom of Saudi Arabia), where the most important results of the study were the requirements for the development of educational leaders' performance, in light of Kaizen, are very important.

Identifying the requirements for applying the Kaizen approach to enhance university leadership

To achieve this objective, the data analysis of leaders (research sample) is presented in the next table.

Table 4.
Leaders' Perspectives about Requirements for Applying the Kaizen Approach.

Questionnaire No.	Item	Mean	Standard Deviation	Rank
1	Dissemination of Kaizen culture among university staff, and identifying its principles	4.25	1.02	1
3	Apply the QUAD model of Kaizen (identify the problem, find the solution, test the solution's feasibility, apply the solution)	4.17	0.90	2
2	Formwork teams to enhance performance rather than depending on one expert according to Kaizen principles	4.16	0.89	3
4	Measure the variables and analyze the data of problems and issues that are required for improvement and change	4.13	0.85	4
5	Continuing improvement through daily follow-up inside the university, physically, rather than through the office	4.09	0.84	5

6	Take Immediate solutions for small problems, which may cause more problems when neglected	4.13	0.90	6
7	Study all aspects (administrative, technical, academic) to discover what has no value and causes consumption of money and effort	4.12	0.88	7
9	Determine the time-wasting aspects (such as students waiting for lectures, waiting for research approval from academic supervisors, etc.), and then develop suggestions to overcome this problem of time-wasting	3.99	0.85	8
8	Determine waste in an academic aspect that represents elongated instruction, repetition, approval of repeated topics for research, etc.	4.1	0.80	9
10	Depending on computers in transcriptions, and recording staff and student data to avoid time-wasting as well as damage of paper files in storage	3.98	0.99	10
13	Depending on thinking and wisdom, and not on effort and money	3.88	1.094	11
14	Adopt an accountability policy for those who are reasonable for any mistakes, according to Kaizen principles	3.98	1.00	12
15	Concern about regulations and organization in all aspects, such as the admission of students and employment	3.85	0.88	13
11	The necessity for focus on processes, and manage from the event's location, as this is more positive than focusing on results, according to the Kaizen approach	3.85	0.80	14
12	Use the data and facts available instead of developing theories	3.62	1.00	15
16	Meet academic, technical, and financial requirements	3.66	1.1	16
17	Being mindful of human relationships and spreading the spirit of teamwork	3.64	1.015	17
18	Contributing to professional developments for university staff and adopting creative capabilities and talents	3.65	0.77	18
19	Providing the opportunity for university staff to make changes without the need for administration approval	3.63	0.99	19
20	Partnership in developing plans and programs of study, developing curriculum, and others which contribute towards continuous improvement	3.56	0.81	20
Total		**3.8**	**0.91**	

From the results of the data analysis (university leaders' opinions), it was found that there is an agreement by the leaders regarding the need to apply the Kaizen approach in university leadership; hence, the total axis shows the arithmetic mean (3.8); thus, the leaders tend to apply previous items from the second axis that indicate the Kaizen principles. These results are in line with Omar's 2018 study, which revealed the need to develop a proposed scenario in light of a particular method that had proven successful in improving performance, the Japanese method (Kaizen). These results are in line with the results of Youssef (2013), which suggested the importance of applying the Kaizen approach, especially the four stages *(Plan-Do-Check-Act)*, for the enhancement of leadership in Egyptian universities. In a study by Emiliani (2005), Kaizen was found to be an effective leadership style that improves higher education institutions.Kaizen can help higher education institutions compete more effectively.

Alharby's (2017) study also emphasizes Kaizen as a style that is needed by Arabian university leaders. It found that Kaizen meets modern requirements to enhance university leadership, and it is necessary to adopt the Kaizen approach with a real commitment to applying it; however, in Al-Kaser's (2016) study, the respondents strongly agreed on the importance of the requirements of the Kaizen strategy for the administration at Shaqra University, Saudi Arabia.

Discussion

This research seeks to achieve specific objectives – to identify the university leadership style regarding the Kaizen approach from the university leaders' and staff's perspectives – and to illustrate the requirements to improve university leadership by applying the Kaizen approach. The results revealed that the majority of the leaders at the four chosen Arabian

universities agreed on the weakness of using the Kaizen approach for enhancing leadership and administration, seeking changes for the best, and keeping up continuous improvements.

The results of the perspectives of the university leaders about applying the Kaizen approach for the enhancement of leadership, administration, and management of all aspects (managerial, financial, academic) showed that they are all in agreement about the needs of Arabian universities. Although there are differences in their locations, they all agreed that using traditional leadership styles makes change and keeping up with globalism very difficult. The results also revealed the importance of applying Kaizen principles to enhance leadership at their university, such as applying the ngQUAD model of Kaizen (identifying the problem, finding the solution, testing the solution's feasibility, applying the solution), avoiding time-wasting, continuing improvement through daily follow-up within the physical location rather than from within their offices, and Kaizen principles.

Conclusions and recommendations

The study concluded that although there is a success with Kaizen as a leadership approach and its strategies and principles are strongly beneficial for supporting and enhancing leaders in the management of their university's departments, it is still not applicable by university leaders, and they also have very little information about this approach.

The leaders of the different Arabian universities (University of Kairouan, Northern Border University, the University of Jordan, and Cairo University) all agreed on the need to apply Kaizen in university leadership.

The principles of Kaizen, which have been placed in the research tool (the questionnaire), seemed to be very necessary from the perspectives of the university leaders.

The research contributes to raising awareness about implementing the Kaizen approach, targeting the increase in efficiency, and quality of university leadership. The research is considered small work to meet the needs of time and evolution in higher education. Although the current research is important, it does have several limitations, such as the low number of examined universities (four), and it would also be better if postgraduates and new members of staff were asked about leadership styles. However, the problem that the researcher mainly faced was a lack of previous research relating to Kaizen. Thus, there is a need for further studies in the respective field to avoid limitations in this research.

In light of this research, the authors recommend using the Kaizen approach and its strategies and principles as a method for the enhancement of university leadership and emphasize conducting further studies about Kaizen.

Bibliographic references

Abdulmouti, H. (2018) Benefits of Kaizen to Business Excellence: Evidence from a Case Study. Ind. Eng. Manage, 7, 251. DOI: 10.4172/2169-0316.1000251

Al Sharif, R.M & Al-Sahat, M.Z.A. (2014). Developing the quality of education at the University of Tabuk in light of the (KAIZEN) strategy for continuous improvement. Journal of the Faculty of Education, Tanta University - Faculty of Education, Egypt, 6, 1 – 38. Retrieved from https://search.mandumah.com/Record/740385

Al Harbi, M.M.A. (2017). Requirements for improving university leadership in light of the Gemba kaizen methodology. Journal of Educational Sciences, 25 (1-Parte 2), 233-262. Retrieved from searchshamaa.org.

Al Kaser, S. (2016). Kaizen theory and its applicability in the Faculty of Education for Girls in Shaqra, Saudi Arabia from the point of view of the administrative body. IUG Journal of Educational and Psychology Sciences, 26(2), 154 -187 Retrieved from https://journals.iugaza.edu.ps/index.php/IUGJEPS/article/view/3028

AL Salami, A. (2017). Development of the performance of educational leaders in secondary schools in Jeddah in light of the Kaizen methodology. Journal of Research in the Field of Specific Education, Faculty of Specific Education, Minia University, Egypt. Retrieved from https://jedu.journals.ekb.eg/?_action=press

Antony, S. et al., (2012). Critical failure factors of Lean Six Sigma: a systematic literature review. International Journal of Quality and Reliability Management, 31(9), 1012 – 103. Retrieved from https://www.emerald.com/insight/content/doi/10.1108/IJQRM-09-2013-0147/full/html

Arbeláez-Campillo, D. F., Rojas-Bahamón, M. J., & Arbeláez-Encarnación, T. F. (2018). Notes for the debate of the categories universal citizenship, human rights and globalization. Cuestiones Políticas, 34(61), 139-161.

Black, S. (2015) Qualities of Effective Leadership in Higher Education. Open Journal of Leadership, 4, 54-66. DOI: 10.4236/ojl.2015.42006.

Barhamin, A. A. (2012) The performance level of the Saudi universities under visual management and Kaizen concepts as perceived by their director's/deputy directors. (Doctoral thesis), Umm Al-Qura University, Kingdom of Saudi Arabia. Retrieved from http://search.shamaa.org/FullRecord?ID=107800

Deming, W.E. (1982). Out of the Crisis. Cambridge, MA: MIT Center for Advanced Engineering Study. ECU (Equality Challenge Unit) (2015). Athena SWAN Charter. Retrieved from https://issuu.com/ijtsrd.com/docs/111_educational_leadership_implicat

Eteir, M.F. (2007) Studying the ability of Jordanian manufacturing companies to utilize the principles of continuous improvement (Kaizen). (Master's thesis) Faculty of Graduate Studies, University of Jordan.

Emiliani, M.L. (2005) "Using kaizen to improve graduate business school degree programs", Quality Assurance in Education, 13(1), 37-52.

Gupta, S., & Jain, S.K. (2014). The 5S and Kaizen concept for overall improvement of the organization: a case study, nt. J. Lean Enterprise Research, 1(1), 22-40

Imai, M. (1989). Gemba Kaizen a Common Sense Approach to a Continuous Improvement Strategy. McGraw-Hill eBooks

Imai, M. (1997). Gemba Kaizen: A Common Sense, Low-Cost Approach to Management. McGraw Hill.

Keijiro, O. (2018) Applying Kaizen in Africa: A new avenue industrial development. Palgrave Macmillan. Retrieved from https://www.amazon.com/Applying-Kaizen-Africa-Industrial-Development/dp/3030082431

Khayum, H.M. (2017). Quality of Higher Education: Implementation of Kaizen Philosophy. World Journal of Social Sciences, 7(1), 10–18

Kregel, I. (2017). Applying Kaizen to University Teaching Through Weekly Course Evaluation. International Conference on Lean Six Sigma for Higher Education, West Lafayette, Indiana, USA, 4.

Leedy, P. (1981). How to read research and understand it? Collier Macmillan

Leseure, M. (2010) Key Concepts in Operations Management, Kaizen chapter. London: SAGE Publications Ltd.

Lindell, J.T. (2014) Controller as Business Manager. United States: Chartered global management accounting, American Institute of Certified Public Accountants NC. Retrieved from https://www.bookdepository.com/Controller-Business-Manager-James-T-Lindell/9781940235639

Macias, M et al. (2017). Kaizen planning, implementing, and controlling. Published by Springer Nature. Retrieved from https://pdfcoffee.com/kaizen-planning-implementing-and-controlling-2017-pdf-free.html

Muffo, J.A. & Krallman, J.D. (1992). Kaizen and the Art of University Administration. TYPE Speeches/Conference Papers (150) Information Analyses (070) Viewpoints (Opinion/Position Papers, Essays, etc.) (120). Retrieved from https://ttu-ir.tdl.org/ttu-ir/bitstream/handle/2346/61223/31295008702176.pdf?sequence=1

Naik, B.M. (2004). Technological Innovation in Educational Institutes. J. Technical Education, 27, 59-61

O'Reilly, S, Healy, J., Murphy, T. & O'Dubhghaill, R. (2017). A continuous improvement journey in the higher education sector: a case study of a university in Ireland. 4th International Conference on Lean Six Sigma for Higher Education, May 25–26, 2017. Retrieved from https://www.researchgate.net/publication/319277289_A_Continuous_Improvement_Journey_in_the_Higher_Education_Sector_A_Case_Study_of_a_University_in_Ireland

Omar, A.M. (2018). A proposal to develop the performance of the staff of the Faculty of Education at Minia University, in light of the Kaizen style, Faculty of Education magazine, Assiut University. Retrieved from https://mfes.journals.ekb.eg/article_105346.html

Prošić, S. (2011). Kaizen management philosophy. International Symposium Engineering Management and Competitiveness, 2011 (EMC2011) June 24-25, 2011, Zrenjanin, Serbia.

Reddy, S.K., & Karim, S. (2014). Kaizen Approach for Enhancing Quality Management Practices in HEIs. Proceedings of the National Symposium on Establishing, Enhancing & Sustaining Quality Practices in Education. Retrieved from https://www.researchgate.net/publication/350973382

Salewski, A., & Klein, V. (2009). How to Launch Lean in a University. ASQ Higher Education Brief. Retrieved from

https://www.researchgate.net/publication/24
9007449_IMPLEMENTING_LEAN_IN_A_
HIGHER_EDUCATION_UNIVERSITY

Salah, S. A., & Sobhi, N. (2018). Productivity enhancement through lean implementation–a case study. In The International Conference on Applied Mechanics and Mechanical Engineering (Vol 18, No. 18th International Conference on Applied Mechanics and Mechanical Engineering., pp. 1-14). Military Technical College.

Scott, P. (2011). Leadership in universities. International Journal of Leadership in Public Services, 7(3), 229-234.

Swartz J.E. & Grabn, M. (2013). Healthcare Kaizen - engaging frontline staff in sustainable continuous improvements. CRC Press. Taylor & Francis Group. Retrieved from https://doi.org/10.1201/b12274

Thessaloniki, R. (2006) KAIZEN: Definition & principles in brief: A concept and tool for employees in evolvement. Michailolidis. Retrieved from www.michailolidis.gr

Titu, M.A. (2010). Applying the Kaizen Method and the 5S Technique in the Activity of Post-Sale Services in the Knowledge-Based Organization. International Multi Conferences of Engineers and Computer Scientists 2010, Vol. 3, Hong Kong

Youssef, D. (2013) How to use the Gemba Kaizen method in the development of Egyptian university education. Arabic studies in educational and physiological (ASEP) Journal, 35(4). Retrieved from https://jfe.journals.ekb.eg/article_129820_8a
6a95e9f6876b79276569be05853855.pdf