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The Use of the Continuous Improvement Technique (Kaizen) in Egyptian Hotels' (An Exploratory Study on a Sample of Five-star Hotels in Giza Governorate)

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الملخص:

تهدف هذه الدراسة إلى قياس استخدام تقنية التحسين المستمر (كايزن) في الفنادق المصرية دراسة استكشافية على عينة من فنادق الخمس نجوم في محافظة الجيزة. لتحقيق هذا الهدف ، تم تطوير الاستبيان وتوزيعه على عينة عشوائية من الضيوف في فنادق الخمس نجوم. تم توزيع عدد 450 نموذجًا وتم استلام 396 نموذجًا (88٪) فقط وصالحة للتحليل بواسطة SPSS .. V.25تم اقتراح بعض التوصيات ، والتوصية العامة هي استكشاف مدى معرفة الفنادق المصرية وتنفيذها وصلاحيتها. اتباع أسلوب كايزن للتحسين المستمر وهو أحد فروع إدارة الجودة الشاملة.

الكلمات المفتاحية: إدارة الجودة الشاملة ، كايزن ، التحسين المستمر.

Abstract

This study aims to Measure The Use of the Continuous Improvement Technique (Kaizen) in Egyptian Hotels' An Exploratory Study on a Sample of Five-star Hotels in Giza

Governorate. To achieve this objective, questionnaire was developed and distributed on a random sample of guests on Five-Star Hotels. A number of 450 forms were distributed and only 396 forms (88%) were received and valid to analyze by SPSS V.25..Some recommendations have been proposed, The general recommendation is to explore the extent to which Egyptian hotels know, implement and follow the kaizen continuous improvement technique which is one of the branches of total quality management.

Key words: Total quality management, Kaizen ,Continuous improvement,

Introduction

As pointed out this particular version, the term Kaizen was a combination of two Japanese (originally Chinese) symbols ideogram (Kanjis), Kai (改) meaning change, and Zen (善), which means good or better. Thus, kaizen means changing things and making them better, or simply improving them. Thus, Kaizen focuses on change for the better. Abdulmouti, (2018) considered that kaizen was not only a continuous improvement, but rather a means and an outcome of managing human and non-human resources in pursuit of business excellence. As such, , argued that the tools that distinctively support kaizen were action-oriented and human-based. Among the various methods applied in continuous improvement are: Total Quality Management, Six Sigma, Re-engineering, Strategic Management, and Kaizen. Each method mentioned uses different tools and techniques for improvement (Abdulmouti, 2018).

However, for the program to be successful, it was essential that employees participate**.**

Research's Problem

The research problem lies in asking the following question:

The problem of research lies in exploring the role of kaizen in hotels Is the use of kaizen effective?

Research's Aim

Accordingly, the research aims to examine the use of the continuous improvement technique (Kaizen) in Egyptian hotels'.

Research's Importance

The importance of the research lies in the use of the Kaizen technique and its application in five-star hotels to reduce waste and improve hotel performance.

Research Hypothesis

Based on the reading about the subject of kaizen, the research hypothesis suggested as follows:

- H1 : There are significant differences between the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees according to their demographical data ("H 1.1" gender, "H 1.2" age, "H 1.3" marital status, "H 1.4" educational level and H 1.5" years of experience).

- H2 : There are significant differences between the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees according to their object data ("H 2.1" Did have attitudes for using kaizen?, "H 2.2" what is kaizen?, "H 2.3" Did you know the definition of kaizen?, "H 2.4" Had you taken any training courses in kaizen?, "H 2.5" How many types of waste?).

Review of Literature

Kaizen concept, implementation and frameworks

Kumar *et al*., (2017) Kaizen achieved improvement through small steps and continuously, unlike the innovations that were dramatic and impressive, and required investment in new technology and equipment. It implied less radical changes which are the result of innovative ideas that take place over time without the investment of huge capital. Oropesa-Vento *et al*., (2015) Ideas for improvement are the output of many difficulties in a highly competitive and globalized environment. Thus, the elements that made Kaizen successful and still valid, while the competitive environment where speed and efficiency are crucial. Therefore, hotels can obtain significant competitive advantages by successfully implementing Kaizen.

Commitment and motivation of the team; Support from top management; Assigned resources; Leadership; developing a culture of Continuous Improvement; Set goals for improvement programs; Using an appropriate methodology; Standardization and process measurement; hotel of support equipment; Presence of a facilitator to support the program; Interdepartmental communication; Conflict between improvement approach and the existing culture; Employee attitude; Interdepartmental cooperation; follow the PDCA (plan-do-check-act) cycle; Training; Heterogeneity of the improvement teams; Evaluation system; Skills and experience; Establish policies, objectives and structure; and Clarify common goals and ideas of managers (Rivera-Mojica and Rivera-Mojica, 2014).

Kaizen, the CI (Continuous Improvement) could be defined as a planned and organized process of continuing change toward betterment. That related to Kaizen implementation framework revealed that did converge to support some standard paradigm of Kaizen frameworks practices. Factors affecting CI and converging ideas in based on the study by Rivera-Mojica, (2014), consisted of the following:

• Analyze and understand current situations and obtain sufficient data to select improvement activity and set goals for the Kaizen team from suggestions made by employees

• Modify and implement selected proposals, and measure production and productivity.

• Determine the root cause was necessary. Root causes were always identified by analyzing the data involved to develop and implement countermeasures.

• Confirm the effects of countermeasures to ensure that the measures taken had improved the outcome to the desired level.

• Implementation of new processes through the necessary modification in the current standardization process.

Critical success factors for Kaizen

Van Aken *et al*. (2010) cite the importance of employee awareness of hotel goals and strategies for the successful implementation of continuous improvement. Meanwhile, Bessant *et al*. (2001) as well as Van Aken *et al*. (2010) identified the distinction between the training of production employees versus managers. This suggests the importance of conducting training on a regular basis. Van Aken *et al*. (2010) further detailed the importance of having an internal facilitator or another individual coach small Kaizen team member in the Continuous Improvement problem solving cycle, including how to effectively gather data needed to make informed decisions.

Tortorella *et al*. (2020) provided a solid basis for understanding how Kaizen can be successfully transferred to different countries in the world. Based on the above results, the critical success factors for Kaizen Transformation are summarized as follows:

Tortorella *et al*. (2020) referred to the power distance affects the level of hierarchy, the degree of centralization and the participation of employees in decision-making. High energy centralization is a major barrier to kaizen transfer and bottom-up decision making enables transfer.

The hotel structure will influence the effectiveness of teamwork, cross-functional communication and collaboration which are positive elements of Kaizen success (Tortorella *et al*., 2020) Organically structured hotels tend to achieve successful Kaizen transition. Organizational culture overwhelms national culture for successful kaizen transmission (Xu, X., and Li, Y. 2016).

Tortorella *et al*. (2020) Studies have confirmed that employee discipline, employee initiative and participation in kaizen, and the need for managers to demonstrate leadership, (Tortorella *et al*., 2020) are very important to ensuring successful kaizen transfer, while the use of Japanese expatriates For hotels (as the highest level overseas) negatively affects the transition of kaizen (Xu, X., and Li, Y. 2016).

Some results demonstrate that long-term or life-long employment rather than short-term and temporary contracts ensures staff commitment to the hotel and maintains kaizen efforts (Brunet and New, 2003).

A well-structured pay and performance management system is necessary to encourage employees to participate in Kaizen on an ongoing basis and their contribution to Kaizen can be linked to employee performance and pay review (Brunet and New, 2003). Performance review greatly influences employees' attitude and commitment to Kaizen events (Glover 2010). Then after the performance review, the application of a reward and recognition system helps to reinforce employee behavior in continuous improvement (Besant *et al*. 2001). It is suggested that HR policies be reconstructed if they do not fit the need of kaizen culture. In order to maintain employee commitment and motivation in the long term, hotels should build a system that promotes intrinsic motivation such as intrinsic challenges as well as performance-based extrinsic rewards such as profit sharing schemes across the hotel to recognize and reward collective excellence (Xu, X., and Li , Y. 2016).

It was about applying organizational psychology to managing employee relations and motivating the transfer and implementation of kaizen in a different culture. Organizational psychology emphasizes building an organizational structure and culture to provide employees with a safe and satisfying work environment and motivate employees (Tortorella *et al*., 2020). Brunet and New (2003) found that Kaizen generates intrinsic psychological benefits to employees from work recognition and satisfaction. It was much easier for employees to receive psychological

acceptance of small but incremental improvements (Tortorella *et al*., 2020).

Barriers to Kaizen and Continuous Improvement

Bortolotti (2018) notes that Kaizen's events were too fast-paced and narrowly focused, which they see as ruling out the hotel's broader vision. If there is no ownership of the Kaizen event process and tasks, the tasks are unlikely to proceed. This may create perceived barriers to future kaizen events. Bortolotti (2018) cites other barriers to Kaizen events related to the ability to preserve Kaizen, including barriers not to influence cultural change and a return to traditional working practices. These findings suggest that if Kaizen events are not incorporated into a larger vision and culture of continuous improvement, and if hotel administrators do not pursue and maintain kaizen, managers and production staff are more likely to recognize the barriers to implementing Kaizen.

Some hotels fail to motivate their employees to participate in kaizen activities due to lack of compensation or reward, lack of proper training of staff and long delays in processing suggestions (Powell & Coghlan, 2020). Top management should develop a reward system that acknowledges the efforts that employees and managers make to ensure Kaizen's success (Jurburg *et al*., 2017). However, hotels that wanted to offer kaizen in their hotel should take extra precautions before starting kaizen. This is

because hotels tend to develop a strategic path that lacks good understanding between senior management and lower-level employees (Powell & Coghlan, 2020). Among the other challenges that Operations Management faced in implementing Kaizen in their hotel was managing continuous improvement itself (Perez *et al*, 2018). In addition, lack of resources to operate activities, lack of focus due to work pressures and lack of understanding of the need for change are also challenges to the implementation of kaizen. Managers, for example, do not know what to do to change their cultures or how to deal with the challenging and demanding nature of kaizen and fail to convince hotel staff that they need to change (Jurburg *et al*., 2017).

Muda, Muri, and Mura (wastes)

MURA: Mura refers to unevenness or fluctuation in work, usually caused by fluctuating production plans not caused by the customer. It is excited by variation in quality, cost or delivery. If activities are not standardized and don't go smoothly or consistently, Mura is the result. Mura consists of all the resources that are wasted when quality cannot be predicted, such as cost of testing, inspection, containment, rework, returns, overtime and unscheduled travel to the customer (Xiang and Krawczyk ,2016).

MURI: Muri means ''hard-to-do'' and can be seen as overburdening of people and equipment by demands that

exceed capacity. It might be the result by variations in production, poor job design or ergonomics, poor part fit, inadequate tools or jigs, and unclear specifications. From a Lean perspective Muri applies to the design of work and tasks: for example tasks or activities requiring movements that are harmful for the employee (Talib and Rahman, 2012).

MUDA: Muda means waste, which were further categorized into the seven wastes. Muda are all activities that consume resources without creating value for the customer. Type one Muda includes actions that are non-value-added, but that cannot be neglected for some other reason. Whereas type two Muda comprise all activities that do not add value and are not necessary. These activities are the first target for elimination (Xiang and Krawczyk ,2016).

Research Methodology:

The number of hotels in Giza Governorate is 11 five-star hotels, and the research sample was chosen as 4 five-star hotels for the study.
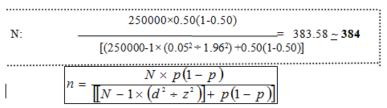
Table (5): The Investigated Hotels

No.	Hotels	Address
1	Pyramisa Hotel	Dokki, Giza
2	Safir Cairo Hotel	Al Misaha, Sq ،Dokki, Giza
3	Mövenpick 6th of October, City	First 6th of October, Giza

4	Sofitel El Gezirah Hotel	El Orman, Giza,

Source: Egyptian Hotel Guide (2016)

To achieve the research aim, employees in hotels were surveyed. Due to the difficulty of surveying employees in hotels, this study chosen in Giza Governorate as a representative sample of the five star hotel's society. The sample equation was applied to unlimited society (Thompson, 2012) as follows:

N:Sample size, **P**: Percentage of the purpose of this study 0.50, **d**: Percentage of the error limit allowed 0.05, **Z**:The standard degree used for giving general results is 95%. Thus, the standard degree = 1.96

$$N: \frac{250000 \times 0.50(1-0.50)}{[(250000-1 \times (0.05^2 \div 1.96^2) + 0.50(1-0.50)]} = 383.58 \sim \mathbf{384}$$

$$n = \frac{N \times p(1-p)}{[[N-1 \times (d^2 \div z^2)] + p(1-p)]}$$

The population of the study is unlimited due to the difficulty of determining a specific number of employees in Egyptian hotels, so the random sample size is an ideal method to apply in this study. According to Thompson, (2012) the lower limit of respondents, that suitable in this study are 384. 396 electronic questionnaires were designed and distributed from 3rd December, 2021 to 5th February, 2022. The questionnaire consisted of two sections. The first section intended to reveal the employees' demographic data. The second section intended to reveal the employees' perception of kaizen.

The respondents were asked to answer these statements by using a five-point Likert-type scale (Strongly agree = 5, agree =4, don't know = 3, disagree = 2 and strongly disagree = 1) to determine the levels of agreement with the statements investigated. The Statistical Package for the Social Sciences (SPSS) version 25.0 was used to analyze and compute the collected data. The range of each level of agreement was calculated as follow:

Table (1): Questions Answered Scale

Category	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Code	**1**	**2**	**3**	**4**	**5**
Range	1 – 1.80	1.81– 2.60	2.61- 3.40	3.41– 4.20	4.21 - 5

Results and Discussion

The results involved three main stages. Descriptive analysis was used to discover participants' responses, variance analysis for respondents' answers and regression analysis were conducted to examine the relationship between independent variables and dependent variable. The results obtained were computed and analyzed in the following tables.

Table (2): Respondents' Demographic Data

Attributes	Frequency	Percentage

			%
Gender	Male	275	69.4
	Female	161	30.6
Total		**396**	**100%**
Age	Less than 25 years old	114	28.7
	From 25 years to less than 40 years	206	52
	More than 40 years old	76	19.3
Total		**396**	**100%**
Marital status	Single	170	42.9
	Married	66	16.7
	Married with children	145	36.6
	Others	15	3.8
Total		**396**	**100%**
Level of Education	Intermediate education	112	28.3
	Under graduation	76	19.2
	University degree	208	52.5
Total		**396**	**100.0**
Years of experience	Less than 5 years	180	45.5
	From 5 up to 10 years	126	31.8
	More than 10 years	90	22.7
Total		**396**	**100.0**

From the statistical data shown in Table (2), it is clear that more than half of the respondents are male, with a percentage of 69.4%. While the percentage of females was 30.6%.

By observing the age group of the respondents, it becomes clear to us that more than half of the respondents, with a percentage of 52%, are of the age group of From 25 years

to less than 40 years, while 28.7% of the age group Less than 25 years old and More than 40 years old, as for the age group, their percentages were (19.3%).

Concerning the marital status of the respondents, it became clear that there were majority, with (42.9%), were single, while married with children represented with (36.6%),. while married with children represented with (16.7%). The lowest group (3.8%) was between widows and divorced.

From the data shown in the table above, it was clear that the most of the respondents are those with a university education level, at a rate of (52.5%), and then in the order of these intermediate education by (28.3%), while the group of under graduation with a percentage of 19.2%.

Concerning Years of experience, it could be founded that about (45.5%) of the total number of respondents have an experience of less than 5 years, , while about (31.8%) their experience ranges between 5 to 10 years .While the lowest percentages of respondents who belonged to the category (more than 10 years) with percentages of (22.7%).

Agree with Tortorella *et al*., (2020) it is about applying organizational psychology to managing employee relations and motivating the transfer and implementation of kaizen in a different culture. Organizational psychology emphasizes building an organizational structure and culture to provide

employees with a safe and satisfying work environment and motivate employees.

Table (3): Did have attitudes for using kaizen?

Attribute	Frequency	Percentage %
Yes	232	58.6
No	164	41.4
Total	**396**	**100.0**

Data in Table (3) revealed that the majority of respondent (100%) did not apply kaizen system inside the hotel, while (0%) no respondent apply kaizen system inside the hotel**.**

Disagree with by Rivera-Mojica, (2014) Kaizen, the CI could be defined as a planned and organized process of continuing change toward betterment. That related to Kaizen implementation framework revealed that did converge to support some standard paradigm of Kaizen practices. Factors affecting CI and converging ideas.

Disagree with Oropesa-Vento et al., (2015) Ideas for improvement are the output of many difficulties in a highly competitive and globalized environment. Thus, the elements that made Kaizen successful and still valid, while the competitive environment where speed and efficiency are crucial. Therefore, hotels can obtain significant competitive advantages by successfully implementing Kaizen.

Table (4): In your opinion, what is kaizen?

Attribute	Frequency	Percentage %

Quality system	227	57.3
Production system	169	42.7
Total	**396**	**100.0**

Data in Table (4) revealed that the majority of respondent (57.3%) kaizen was a quality system meanwhile 42.7% revealed that a production system.

Agree with Singh and Singh, (2015) among the various methods applied in continuous improvement are: Total Quality Management, Six Sigma, Re-engineering, Strategic Management, and Kaizen.

Table (5): Did you know the definition of kaizen?

Attribute	Frequency	Percentage %
Change good" Small scale improvements "	176	44.4
Radical system	220	55.6
Total	**396**	**100.0**

From the tabulated data, it could be noticed that the majority of respondents (55.6%) answered radical system. Meanwhile, 44.4% answered Change good" Small scale improvements ".

Agree with Suárez-Barraza *et al*., (2017), the term Kaizen was a combination of two Japanese (originally Chinese) symbols ideogram (Kanjis), Kai (改) meaning change, and Zen (善), which means good or better. Thus, kaizen means changing things

and making them better, or simply improving them. Thus, Kaizen focuses on change for the better.

Agree with Kumar et al., (2017) Kaizen achieves improvement through small steps and continuously, unlike the innovations that are dramatic and impressive, and require investment in new technology and equipment. It implies less radical changes which are the result of innovative ideas that take place over time without the investment of huge capital.

Table (6): Had you taken any training courses in kaizen?

Attribute	Frequency	Percentage %
Yes	69	17.4
No	327	82.6
Total	**396**	**100.0**

From the tabulated data, it could be noticed that the majority of respondents (82.6%) answered no. Meanwhile, 17.4% answered yes.

Agree with Van Aken *et al*. (2010) cite the importance of employee awareness of hotel goals and strategies for the successful implementation of continuous improvement. Meanwhile, case study research by Bessant *et al*. (2001) as well as Van Aken *et al*. (2010) identified the distinction between the training of production employees versus managers. This suggests the importance of conducting training on a regular basis.

Table (7): How many types of waste?

Attribute	Frequency	Percentage %
One	50	12.6
Three	162	40.9
Seven	184	46.5
Total	**396**	**100.0**

From the tabulated data, it could be noticed that the majority of respondents (46.5%) answered eight. Meanwhile, 40.9% answered three, and 12.6 answered one.

Agree with Xiang and Krawczyk, (2016) Muda means waste ,which were further categorized into the seven wastes.

Table (8): Descriptive Statistics

The Use of the Continuous Improvement Technique (Kaizen) in Egyptian Hotels'

Variable	Mean	Std. Deviation	Variance
Reasons of Applying of Kaizen			
1- The hotel had knowledge of continuous improvement strategies	2.87	1.234	1.519
2- Improving job satisfaction.	3.55	1.09	1.20

3- Improving service & product quality.	2.96	1.123	1.258
4- Improving hotel's efficiency.	3.09	1.337	1.785
5- Inventory reduction	3.52	1.05	1.11
6- Increasing customer satisfaction	2.65	1.320	1.739
7- Reduction of hotel's waste.	3.96	0.324	0.104
Important barriers in implementing CI activities			
8- Poor planning	2.64	1.208	1.456
9- Lack of management commitment	3.97	0.213	0.046
10- Resistance of the workforce	3.05	1.294	1.671
11- Lack of continuous training and education	2.86	1.280	1.634
12- Teamwork complacency	2.88	1.311	1.715
13- Lack of resources	2.94	1.389	1.926
14- Inability to change organizational culture	2.95	1.411	1.988

15- Inability to build a learning organization that provides for continuous improvement	3.02	1.413	1.991
16- Incompatible organizational structure and isolated individuals and departments	3.56	0.765	0.584
Employee awareness and training			
17- Employees search for information, new ideas, and technologies as a part of CI practices	3.23	1.281	1.639
18- The hotel had a clear statement of its goals	3.36	1.274	1.620
19- The hotel frequently communicated its business goals and strategies with employees	3.90	0.624	0.389
20- Production workers were encouraged to provide input on hotel goals and strategies	3.99	0.158	0.025
21-Managers received regular training in continuous improvement skills and strategies	2.83	1.341	1.795
22- Production workers were regularly trained in continuous improvement skills and strategies	3.04	1.573	2.469

23-Training sessions in continuous improvement had improved workers' and hotel performance	3.81	0.680	0.461
24- Employees were knowledgeable of other teammates' job duties and functions	3.03	1.259	1.581
25- Managers were knowledgeable of each employee's job duties and functions within a project team	3.47	0.961	0.921

As presented at table (8) it could be noticed that the average of Standard specification for the Reasons of Applying of Kaizen attributes ranged between 2.65 to 3.96 which mean that respondents' perceptions towards Standard specification for the Reasons of Applying of Kaizen ranged between neutral and agree.

They were neutral that:
1- The hotel had knowledge of continuous improvement strategies (2.87)

2- Improving service & product quality (2.96)

3- Improving hotel's efficiency (3.09)

4- Increasing customer satisfaction (2.65)

Sentences number one and three agree with Rivera-Mojica, (2014), consists of that Analyze and understand current

situations and obtain sufficient data to select improvement activity and set goals for the Kaizen team from suggestions made by employees, Modify and implement selected proposals, and measure production and productivity. Determine the root cause was necessary. Root causes are always identified by analyzing the data involved to develop and implement countermeasures. Confirm the effects of countermeasures to ensure that the measures taken have improved the outcome to the desired level. Implementation of new processes through the necessary modification in the current standardization process.

They were agreeing that:
1- Improving job satisfaction (3.55)

2- Inventory reduction (3.52)

3- Reduction of hotel's waste (3.96)

Sentences number two and three Agree with Xiang and Krawczyk ,(2016) Kaizen reduces Mura that refers to unevenness or fluctuation in work, usually caused by fluctuating production plans not caused by the customer. It is excited by variation in quality, cost or delivery. If activities are not standardized and don't go smoothly or consistently, Mura is the result. Mura consists of all the resources that are wasted when quality cannot be predicted, such as cost of testing, inspection, containment, rework, returns, overtime and unscheduled travel to the customer

As presented at table it could be noticed that the average of the Important barriers in implementing CI activities attributes ranged between 2.64 to 3.97 which means that respondents' perceptions towards the Important barriers in implementing CI activities ranged between neutral and agree.

They were neutral that:

1- Poor planning (2.64)

2- Resistance of the workforce (3.05)

3- Lack of continuous training and education (2.86)

4- Teamwork complacency (2.88)

5- Lack of resources (2.94)

6- Inability to change organizational culture (2.95)

7- Inability to build a learning organization that provides for continuous improvement (3.02)

Sentences number one, three, four and six agree with Powell & Coghlan, (2020). Top management should develop a reward system that acknowledges the efforts that employees and managers make to ensure Kaizen's success (Jurburg et al., 2017). However, hotels that wanted to offer kaizen in their hotel should take extra precautions before starting kaizen. This is because hotels tend to develop a

strategic path that lacks good understanding between senior management and lower-level employees (Powell & Coghlan, 2020). Among the other challenges that Operations Management faced in implementing Kaizen in their hotel was managing continuous improvement itself (Perez et al, 2018). In addition, lack of resources to operate activities, lack of focus due to work pressures and lack of understanding of the need for change are also challenges to the implementation of kaizen. Managers, for example, do not know what to do to change their cultures or how to deal with the challenging and demanding nature of kaizen and fail to convince hotel staff that they need to change (Jurburg et al., 2017).

They were agreeing that:
1- Lack of management commitment (3.97)
2- Incompatible organizational structure and isolated individuals and departments (3.56)

Sentences number one and two agree with Bortolotti (2018) notes that Kaizen's events are too fast-paced and narrowly focused, which they see as ruling out the hotel's broader vision. If there is no ownership of the Kaizen event process and tasks, the tasks are unlikely to proceed. This may create perceived barriers to future kaizen events. Bortolotti (2018) cites other barriers to Kaizen events related to the ability to preserve Kaizen, including barriers not to influence cultural change and a return to traditional working practices. These findings suggest that if Kaizen events are not incorporated

into a larger vision and culture of continuous improvement, and if hotel administrators do not pursue and maintain kaizen, managers and production staff are more likely to recognize the barriers to implementing Kaizen.

As presented at table it could be noticed that the average of Employee awareness and training attributes ranged between 2.93 to 3.60 which means that respondents' perceptions towards Employee awareness and training between neutral and agree.

They were neutral that:

1- Employees search for information, new ideas, and technologies as a part of CI practices (3.23)
2- The hotel had a clear statement of its goals (3.36)
3- Managers received regular training in continuous improvement skills and strategies |(2.83)
4- Production workers were regularly trained in continuous improvement skills and strategies (3.04)
5- Employees were knowledgeable of other teammates' job duties and functions (3.03)

Sentences number three and four agree with Rivera-Mojica (2014), said that Commitment and motivation of the team; Support from top management; Assigned resources; Leadership; developing a culture of CI; Set goals for improvement programs; Using an appropriate methodology; Standardization and process measurement; hotel of support equipment; Presence of a facilitator to support the program;

Interdepartmental communication; Conflict between improvement approach and the existing culture; Employee attitude; Interdepartmental cooperation; follow the PDCA cycle; Training; Heterogeneity of the improvement teams; Evaluation system; Skills and experience; Establish policies, objectives and structure; and Clarify common goals and ideas of managers.

<u>They were agreeing that</u>:
1- The hotel frequently communicated its business goals and strategies with employees (3.90)
2- Production workers were encouraged to provide input on hotel goals and strategies (3.99)
3- Training sessions in continuous improvement had improved workers' and hotel performance (3.81)
4- Managers were knowledgeable of each employee's job duties and functions within a project team (3.47)

Sentences number four agrees with Jurburg *et al*., (2017), said that Top management should develop a reward system that acknowledges the efforts that employees and managers make to ensure Kaizen's success.

Testing Hypotheses

Table (9) : Impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees according to their demographical data "H.1"

Chi-Square	Gender H 1.1	Age H 1.2	Marital Status H 1.3	Educational Level H 1.4	Years of experience H 1.5
Sig.	0.002	0.000	0.000	0.000	0.000
N	396	396	396	396	396

Statistical significance at 0.05 using Chi-Square test
H. Hypothesis

With regard to Table (9), the results of Chi-Square showed that there are significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees returns to their "*Gender* H1.1", which Sig. (.002).

The results of Chi-Square of demographical data showed that there are no significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees back to their "*Age* H1.2", Sig. (.000). There are no significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees back to their "*marital status* H1.3", which Sig. (.000) . In addition to that there are no significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees back to

their "*Educational level* H1.4", which Sig. (.000). There are no significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees back to their "*Years of experience* H1.5", Sig. (.000).

Table (10) : Impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees according to their object data" H.2"

Chi-Square	Did have attitudes for using kaizen? H 2.1	what is kaizen H 2.2	did you know the definition of kaizen H 2.3	Had you taken any training courses in kaizen H 2.4	how many types of waste H 2.5
Sig.	0.153	0.000	0.191	0.169	0.000
N	396	396	396	396	396

Statistical significance at 0.05 using Chi-Square test
H. Hypothesis

As it can be observed from table (10), the results of Chi-Square showed that there are significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) on "*Did have attitudes for using kaizen?* H2.1", which Sig. (.153). Also, there are significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) on "*did you know the definition of kaizen* H2.3", which Sig. (.191). Moreover, there are significant differences on 0.05 degree between the impact of the use of

the continuous improvement technique (Kaizen) on "*Had you taken any training courses in kaizen* H2.4", which Sig. (.169).

Finally, the results of Chi-Square of object data showed that there are no significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) on "*what is kaizen* H2.2", Sig. (.000). In addition to that there are no significant differences on 0.05 degree between the impact of the use of the continuous improvement technique (Kaizen) on "*how many types of waste* H2.5", which Sig. (.000).

Conclusion

This paper has presented an investigation into determining the use of the Continuous Improvement Technique (Kaizen) in Egyptian Hotels'. the importance of employee awareness of hotel goals and strategies for the successful implementation of continuous improvement. Meanwhile, identified the distinction between the training of production employees versus managers. This suggests the importance of conducting training on a regular basis. further detailed the importance of having an internal facilitator or another individual coach small Kaizen team member in the CI problem solving cycle, including how to effectively gather data needed to make informed decisions.

Summarize the research results; there is a significant variance between the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees according to their demographical data on (Gender). On the other hand, the results of Chi-Square of demographical data showed that there are no significant differences between the impact of the use of the continuous improvement technique (Kaizen) in Egyptian hotels' employees back to their (Age, marital status, Educational level and Years of experience).

As it can be observed from the object data results correlation showed that there are significant differences between the impact of the use of the continuous improvement technique (Kaizen) on (Did have attitudes for using kaizen, did you know the definition of kaizen, Had you taken any training courses in kaizen). From other side, there are no significant differences between the impacts of the use of the continuous improvement technique (Kaizen) on (what is kaizen, how many types of waste)

Finally, this research paper confirms that The hotel works on building a corporate culture that encourages the individual to acknowledge that there are problems, and to suggest appropriate solutions to them. There is nothing that cannot be improved, everything can be improved and should be improved.

**The Use of the Continuous Improvement Technique (Kaizen) in
Egyptian Hotels' (An Exploratory Study on a Sample of Five-star
Hotels in Giza Governorate)**

Recommendations

1. Consolidating the concept of kaizen and making it a strategic goal that begins with the senior management and ends with the last person in the organization.

2. Holding training courses for hotel employees aimed at improving their performance level and developing their behavioral and practical skills using kaizen.

3. Giving more attention by hotel managers to the problems of employees and working to solve them and overcoming any obstacles they may face as soon as possible using the kaizen problem solving model.

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