

## **Kaizen methodology for continuous improvement as an entry point to achieve outstanding institutional performance in the Directorate of Youth and Sports in Alexandria Governorate**

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### **Research Problem and Importance:**

Current international challenges force organizations to convert from using traditional administrative methods to new methods to exploit human capacities, perhaps (Kaizen) methodology of improving permanent performance is one of the most important new trends suitable for leading organizations for the time being.

**Ann Bisou (2016)** and **Robert Maurer (2012)** agreed upon Kaizen as an administrative philosophy and a Japanese strategy aiming at development, permanent improvement (25: 28), (32: 9).

**Kai Musashi (2016)**, **Richard Schonberger (2012)**, **Masaaki Imai (2012)** define it as creating a slow and permanent change in work via gradual improvement, reducing costs and wastes and increasing productivity. (29: 17), (31: 157), (30: 13).

**Benjamin S. Sweet (2015)** says that Kaizen's methodology includes a great number of procedures including "adopting Kaizen's methodology by supreme administration, selecting leaderships qualified for applying Kaizen's culture, enhancing teamwork culture, encouraging creative thoughts and reducing wastes". (26: 39).

**Charles Protzman (2016)** considers method of improvement course or the so called "PDCA" as the most common method of achieving permanent improvement as it consists of four stages: **planning, executing, reviewing or examining and finally correction**". "Act" (27: 56)

As the researcher, in order to apply Kaizen's methodology, two main factors shall be depended on, **the first is the technical one** related to reducing waste in operations and improving the operation's time costs and quality, **and the second one is related to social aspect** while focusing on changing employees and organization's culture.

**The researcher could reach the research problem via** taking the first place by youth and sports directorate, Alexandria as the level of youth and sports directorates for 2018 / 2019, via contacting some employees in the directorate during executing many activities of civil training curriculum as she observed non availability of all facts for all leaderships to take administrative decisions, and disallowing employees to submit new ideas to carry out improvement operations, some of waste aspects, **which made the researcher carry out a pilot study via open interview** with (6) persons represented in directorate's manager, directorate's deputy manager and some managers of different departments **to know how far** are they familiar with permanent improvement concept " Kaizen", **as the most important results were** "the concept

of permanent improvement is unclear for all employees, there is no permanent review and reevaluation unit".

According to looking into many previous studies results including results of study of Qusayr Bin Odeh (2020) ( 15 ) Moamen Sharafeldin (2012) ( 11 ), Glover et al. (2011) ( 28 ), it was found that main requirements of Kaizen's methodology success are clear policy of desiring improvement and development while study of Nadia Abdelkhalik (2016) ( 12 ), Twaitia Eltaher (2017) ( 13 ), recommends the necessity of enabling employees to join cultural courses to recognize the importance of using Kaizen's method.

Which made the researcher compile this research titled:

**“Kaizen methodology for continuous improvement as an entry point to achieve outstanding institutional performance in the Directorate of Youth and Sports in Alexandria Governorate “**

#### **Research Objective:**

**Identifying effects of using (kaizen) methodology to improve permanent performance of achieve excellent organizational performance at youth and sports directorate in Alexandria through determining:**

"The role of supreme administration in improving permanent performance, procedural steps of Kaizen's methodology, and the effect of applying Kaizen's methodology to achieving a distinctive organizational performance related to employees, operations and directorate".

#### **Research Procedures:**

**Research Method:** Survey descriptive method was used as it is suitable for the research nature.

#### **Research Community and Sample:**

The research sample included three groups "**supreme administration**" of (7) persons represented in directorate's manager, directorate's deputy manager, and (5) departments' managers under research, "**middle administration**" of (8) managers from,

"**executive administration**" of (69) sports specialist as the whole research sample reached (84) subjects as the pilot sample reached (10) subjects, and (4) forms were set aside due to non data completion; accordingly, the main research sample reached (70) subjects.

#### **Date Collection Tools:**

- Questionnaire form

#### **Form Scientific Coefficients**

#### **A- Internal consistence validity of questionnaire form phrases**

The researcher used internal consistency method by finding correlation coefficient between phrases and factors they belong to and phrase and the whole questionnaire degree as in tables (1), (2) and (3)

**Table (1) Correlation Coefficient between every Phrase and Dimensions they belong to and the First Factor Degree**

(N=10)

Correlation coefficient of the first factor phrases								
Serial	With the first factor	With the whole degree	Serial	With the first factor	With the whole degree	Serial	With the first factor	With the whole degree
1/1	0.668	0.823	1/9/1	0.756	0.767	1/17	0.693	0.761
1/2	0.719	0.712	1/9/2	0.731	0.783	1/18	0.718	0.748
1/3	0.719	0.787	1/10	0.770	0.800	1/18/1	0.787	0.874
1/4	0.726	0.773	1/11	0.834	0.755	1/18/2	0.792	0.765
1/5	0.699	0.727	1/12	0.725	0.781	1/18/3	0.767	0.745
1/6	0.855	0.846	1/13	0.764	0.702	1/18/4	0.765	0.748
1/7/1	0.731	0.765	1/14	0.771	0.754	1/18/5	0.724	0.776
1/7/2	0.695	0.728	1/15	0.690	0.683			
1/8	0.773	0.761	1/16	0.697	0.681			

Rg (0.05.8) = 0.632

**Table (2) Correlation Coefficient between every Phrase and Dimensions they belong to and the Second Factor Degree**

(N=10)

Correlation coefficient of the first dimension phrases				Correlation coefficient of the second dimension phrases			
Serial	With the first dimension	With the second factor	With the whole degree	Serial	With the second dimension	With the second factor	With the whole degree
2/1	0.757	0.775	0.717	3/1	0.808	0.717	0.768
2/2	0.690	0.960	0.770	3/2	0.748	0.699	0.708
2/3	0.757	0.964	0.717	3/3	0.875	0.817	0.835
2/4	0.860	0.964	0.800	3/4	0.763	0.725	0.723
2/5	0.763	0.902	0.723	3/5	0.763	0.822	0.823
2/6	0.737	0.710	0.697	3/6	0.808	0.790	0.768
2/7	0.875	0.717	0.835	3/7	0.761	0.901	0.741
2/8	0.763	0.902	0.732				
2/9	0.840	0.805	0.700				
Correlation coefficient of the third dimension phrases				Correlation coefficient of the fourth dimension phrases			
Serial	With the third dimension	With the second factor	With the whole degree	Serial	With the fourth dimension	With the second factor	With the whole degree
4/1	0.808	0.741	0.768	5/1	0.814	0.713	0.774
4/2	0.711	0.827	0.771	5/2	0.773	0.750	0.733
4/3	0.817	0.698	0.777	5/3	0.694	0.768	0.684
4/4	0.774	0.788	0.734	5/4	0.817	0.822	0.857
4/5	0.862	0.878	0.822	5/5	0.880	0.900	0.840
4/6	0.689	0.765	0.699	5/6	0.761	0.701	0.721
4/7	0.849	0.899	0.809				

Rg (0.05.8) = 0.632

**Table (3) Correlation Coefficient between every Phrase and Dimensions they belong to and the Third Factor Degree**

(N=10)

Correlation coefficient of the first dimension phrases				Correlation coefficient of the second dimension phrases				Correlation coefficient of the third dimension phrases			
Serial	With the first dimension	With the third factor	With the whole degree	Serial	With the second dimension	With the third factor	With the whole degree	Serial	With the third dimension	With the third factor	With the whole degree
6/1	0.751	0.821	0.811	7/1	0.740	0.847	0.700	8/1	0.769	0.802	0.829
6/2	0.442	0.756	0.702	7/2	0.901	0.760	0.861	8/2/1	0.734	0.725	0.694
6/3	0.833	0.823	0.793	7/3/1	0.887	0.836	0.738	8/2/2	0.617	0.822	0.777
6/4	0.988	0.786	0.859	7/3/2	0.695	0.747	0.755	8/3/1	0.742	0.698	0.802
6/5	0.964	0.812	0.924	7/3/3	0.737	0.714	0.697	8/3/2	0.723	0.860	0.883
6/6	0.817	0.822	0.777	7/3/4	0.724	0.865	0.784	8/3/3	0.738	0.715	0.698
6/7	0.722	0.758	0.782	7/4/1	0.745	0.742	0.805	8/3/4	0.695	0.767	0.755
6/8	0.757	0.912	0.717	7/4/2	0.719	0.865	0.779	8/3	0.698	0.691	0.758
6/9	0.690	0.690	0.850	7/4/3	0.837	0.714	0.697	8/4	0.827	0.691	0.787
				7/5	0.742	0.694	0.702				
				7/6	0.775	0.749	0.735				
				7/7	0.745	0.879	0.805				
				7/8	0.877	0.797	0.837				

Rg (0.05.8) = 0.632

It is clear from tables (1, 2, 3) that there is a statistical significant correlation at significant level (0.05) between degree of every phrases and dimensions belonging to.

**Calculating Questionnaire Reliability Coefficient:**

**Table (4) Questionnaire Reliability by Split Half and Cronbach's Alpha**

Factors and Dimensions	Split Half		Cronbach's Alpha
	Spearman Brown	Gitman	
<b>First Factor: The role of supreme administration at youth and sports directorate, in Alexandria in achieving permanent improvement " Kaizen"</b>	0.731	0.719	0.811
<b>Second Factor: Kaizen's methodology procedural steps</b>	0.794	0.880	0.754
First dimension: Planning	0.830	0.909	0.790
Second dimension: Execution	0.741	0.737	0.721
Third dimension: Evaluation and Examination	0.794	0.816	0.754
Fourth dimension: Responding to suggested improvements	0.725	0.752	0.805
<b>Third Factor: Effect of applying Kaizen's methodology in achieving distinctive organizational performance at youth and sports directorate, Alexandria</b>	0.886	0.701	0.846
First dimension: Improving performance of employees of youth and sports directorate	0.840	0.801	0.830
Second dimension: Improving operations performance	0.745	0.755	0.725
Third dimension: Improving performance of youth and sports directorate, Alexandria	0.812	0.762	0.772

Total questionnaire degree	0.877	0.733	0.768
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It is clear from table (4) that reliability coefficient by split half ranges between (0.701) and (0.909), and Cronbach's Alpha reliability coefficient ranges between (0.721) and (0.846), to prove that the researched questionnaire has a high reliability coefficient.

**Statistical Treatment**

"Repetition and percentage, split half, Cronbach's Alpha reliability coefficient, outweighed percentage, Chi square Distribution, Pearson correlation coefficient, out weighted percentages."

**Research Results Discussions:**

**Table (5) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage of Response on the First Factor the Role of:**

**The Role of Supreme Administration at Youth and Sports Directorate in Alexandria Achieving Permanent Improvement "Kaizen"**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi Square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
1										
1/1	All departments effective participation in permanent improvement	10	83.33	2	16.67	47	81.03	11	18.97	0.035
1/2	Having a business improvement and development plan according to its view, strategies and objectives	9	75.00	3	25.00	23	39.66	35	60.34	5.005
1/3	Availing suitable environmental circumstances in which permanent development is a life style	8	66.67	4	33.33	24	41.38	34	58.62	2.562
1/4	Allowing a budget for permanent improvement operations	5	41.68	7	58.33	19	32.76	39	67.24	0.350
1/5	Availing substantial and human potentials to apply permanent improvement	11	91.67	1	8.33	46	79.31	12	20.69	1.004
1/6	Graduated application of permanent improvement of different operations inside youth and sports directorate	11	91.67	1	8.33	40	68.97	18	31.03	2.591
1/7	Holding cultural courses to:									
1/7/1	Know the importance of using Kaizen method	7	58.33	5	41.67	18	31.03	40	68.97	3.227

1/7/2	Convincing all employees of different administrative levels by all advantages of applying Kaizen's methodology	7	58.33	5	41.67	12	20.69	46	79.31	*7.125
1/8	Providing all support, training and education to all the directorate's employees	10	83.33	2	16.67	34	58.62	24	41.38	2.601
1/9										
1/9/1	Employees of all the directorate's administrative levels	11	91.67	1	8.33	45	77.59	13	22.41	1.232
1/9/2	Beneficiaries	10	83.33	2	16.67	49	84.48	9	15.52	0.010
1/10	Availing all data and facts of making administrative decisions	9	75.00	3	25.00	28	48.28	30	51.72	2.850
1/11	Availing new evaluation methods to avoid error repetition and overcoming weak points	8	66.67	4	33.33	24	41.38	34	58.62	2.562
1/12	Motivating all employees creative efforts	10	83.33	2	16.67	32	55.17	26	44.83	3.285
1/13	Rewarding the best ideas of developing the directorate's work	9	75.00	3	25.00	26	44.83	32	55.17	3.621
1/14	Making employees' groups "quality circuits" to solve problems and obtaining new ideas	11	91.67	1	8.33	52	89.66	6	10.34	0.045
1/15	Direct supervision via visiting the event's site instead of problems remote control "Gemba Kaizen"	11	91.67	1	8.33	49	84.48	9	15.52	0.419
1/16	Taking all sufficient and immediate preventive decisions to avoid work suspension	10	83.33	2	16.67	46	79.31	12	20.69	0.101
1/17	Discussing employees ideas at all departments and on a regular basis to apply the available ones	10	83.33	2	16.67	21	36.21	37	63.79	*8.950
1/18	Employees' participation in:									
1/18/1	selecting the operation required to be improved	11	91.67	1	8.33	32	55.17	26	44.83	5.589
1/18/2	Looking for new means to improve the directorate's operations	11	91.67	1	8.33	37	63.79	21	36.21	3.584
1/18/3	Executing improvement operations	11	91.67	1	8.33	42	72.41	16	27.59	2.004
1/18/4	Evaluating improvement operations	8	66.67	4	33.33	22	37.93	36	62.07	3.352
1/18/5	Documenting improvement operations and informing them to employees	9	75.00	3	25.00	21	36.21	37	63.79	*6.110

Chi square Distribution (0.05.2) = 5.991

From table number (5) of the first factor it is clear that there are no significant difference between the research sample groups response about the first factor phrases as Chi square Distribution was less than its value at level (0.05) and ranged between (0.010 : 5.589) except for phrases number (1/7/2, 1/17, 1/18/5)

And in case of phrases number (1/7/2, 1/17, 1/18/5) it is clear that how far response of research groups subjects differ and as supreme and supervisory administration agreed at percentage ranged from (58.33: 83.33 %) on that cultural courses are to held to convince all employees of advantages of applying Kaizen's methodology, discussing employees' ideas at every department, we find that executive administration.

Results of study of **Rizan Salaheldin, Berzin Sheikh Mohamed (2010) (20)** indicates that using Kaizen's method needs the supreme administration support; accordingly the supreme administration establishes this method as a strategy for and that applying the same is the responsibility of all administrative levels to guarantee its efficiency and success.

Results of phrases number (1/1, 1/2, 1/3, 1/5, 1/6) indicated agreement of responses of both research groups at percentage ranged (66.67: 91.67 %) for supreme and middle administration and between (41.38: 81.03 %) for execution administration of supreme administration concern of efficient participation of all departments in permanent improvement operations, on having an improvement plan.

**Ayten Mahmoud Elmargoushy (2008)** indicates that permanent development is the responsibility of administration and employees focusing on developing all the organization's activities and operations (5: 130).

Study of **Maher Mohsen (2014) (1·)** recommends the importance of compiling an improvement operations' budget.

From results of phrases number (1/7/1, 1/8, 1/9/1, 1/9/2) it is clear that there is an agreement by all responses of the two groups on holding cultural courses to Kaizen's importance, providing support and training to the directorate's employees.

This agrees with results of study of **Sherihan Yehia Moursy (2017) (٢2)** confirming a gap between supreme administration and sports specialists of the directorate in participation in decision making process.

Also and from phrases number (1/10, 1/11, 1/12, 1/13, 1/14, 1/15, 1/16) it is clear that the research sample agree at percentage between (66.67: 91.67 %) for supreme and middle administration and at (41.38: 89.66 %) for executive management provided all data and facts are available for administrative decision making, availing new evaluation methods to avoid error repetition.

Study of **Dalia Taha Mahmoud Youssef (2013) (٦)** recommends the importance of correcting errors upon occurrence and focusing on permanent improvement.

But phrases number (1/8/1, 1/18/2, 1/18/3, 1/18/4) indicating employees participation in selecting operation required to be improved, looking for new methods of operations

improvement, supreme and middle administration's agreement ranged between (66.67 : 91.67 %) and agreement percentage (37.93 : 72.41 %) for executive administration.

Ahmed Abdelsalam (2016), Nagy Ismail, Mohamed Ibrahim Meghawry (2014) indicated the importance of participating in administrating and formulating change plans for operations required to be improved (1:8), (14 : 114)

The researcher indicates the importance of all administrative levels participation in planning to carry out operations of improvement.

**Table (6) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage for Response in the Second Factor:**

**Procedures Steps of Kaizen's Methodology – First Dimension: Planning**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
2										
2/1	Ordering all problems facing the directorate according to priority	11	91.67	1	8.33	53	91.38	5	8.62	0.001
2/2	Collecting data and information about all problems and verifying real causes	10	83.33	2	16.67	44	75.86	14	24.14	0.315
2/3	Identifying causes resulted in such problems	10	83.33	2	16.67	46	79.31	12	20.69	0.101
2/4	Selecting the most critical problems to be solved	11	91.67	1	8.33	51	87.93	7	12.07	0.137
2/5	Clarifying the main problems causes after separating the real cause from the secondary ones	11	91.67	1	8.33	50	86.21	8	13.79	0.265
2/6	Suggesting different ideas for solving such problem	10	83.33	2	16.67	42	72.41	16	27.59	0.621
2/7	Estimating period required to solve this problem	10	83.33	2	16.67	22	37.93	36	62.07	*8.259
2/8	Establishing an improvement plan	11	91.67	1	8.33	49	84.48	9	15.52	0.419
2/9	Coordinating between all the directorate's departments to execute improvement plans efficiently	11	91.67	1	8.33	43	74.14	15	25.86	1.733

Chi square Distribution (0.05.2) = 5.991

From table number (6) of the second factor – first dimension: Planning, no differences between responses of the research sample groups about phrases of the first dimensions as Chi square Distribution was less than its tabular value at level (0.05) and ranged between (0.001 : 1.733) except for phrase number (2/7) as (Ca2) value reached (8.259).

Results of phrases number (2/1, 2/2, 2/3, 2/4, 2/5, 2/6, 2/7, 2/8, 2/9) indicated responses of the two researched groups at percentage (83.33 : 91.67 %) for supreme and middle administration



and between (72.41 : 91.38 %) for executive administration provided youth and sports directorate plans, collect data and information of all problems, selecting the most important problem, clarifying the main problem causes and suggesting problems solution.

**Ahmed Abdelsalam (2016)** indicates that: Analyzing the organization's environment and analyzing available internal potentials may affect suitable strategy determination (1 : 36, 37)

**Table (7) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage for Response in the Second Factor:**

**Procedures Steps of Kaizen's Methodology – Second Dimension: Execution**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
3										
3/1	Designing a specialized unit for permanent review and evaluation	4	33.33	8	66.67	13	22.41	45	77.59	0.645
3/2	Executing changes needed for solving problems gradually	9	75.00	3	25.00	42	72.41	16	27.59	0.034
3/3	Availing logistic materials "appliances and tools" needed for plans execution	8	66.67	4	33.33	35	60.34	23	39.66	0.168
3/4	Training and qualifying assigned employees to execute suggested plans	5	41.67	7	58.33	21	36.21	37	63.79	0.127
3/5	Executing determined corrective procedures	7	58.33	5	41.67	31	53.45	27	46.55	0.096
3/6	Collecting information to identify corrective procedures efficiency	7	58.33	5	41.67	30	51.72	28	48.28	0.174
3/7	Observing the plan execution time frame	8	66.67	4	33.33	25	43.10	33	56.90	2.215

Chi square Distribution (0.05.2) = 5.991

It is clear from table number (7) of the second factor – second dimension: Execution, there are no significant differences between the two research sample groups about phrases of the second dimension as Chi square Distribution was less than its tabular value at level (0.05) and ranged between (0.034 : 2.215).

And the results of phrases number (3/2, 3/3, 3/5, 3/6, 3/7) indicated agreement of the two research responses at percentage (58.33 : 75.00 %) for supreme and middle administration and at (43.10 : 72.41 %) for executive administration provided the supreme administration executes and develops works gradually, availing logistic resources needed for plans execution.

Hassan Ahmed Elshafaey (2018) indicated the importance of availing logistic resources to satisfy the organization's main functions (Y: 28)

For phrases number (3/1, 3/4) it was clear that the two research groups responses agreed at (33.33 %), (41.67 %) for the first group, and (22.41 %), (36.21 %) for the second group successively upon that supreme administration shall design a unit for permanent review and evaluation.

Ahmed Elsherif (2018) clarifies that control and follow up is the means used by organizations to follow up business execution and development. (Y: 45)

**Table (8) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage for Response in the Second Factor:**

**Procedures steps of Kaizen's Methodology – Third Dimension: Evaluation and Examination**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
4										
4/1	A specialized unit for permanent review and evaluation	4	33.33	8	66.67	14	24.14	44	75.86	0.440
4/2	A clear performance indicators to evaluate and execute its plans	8	66.67	4	33.33	27	46.55	31	53.45	1.609
4/3	Clear and written review and evaluation system	5	41.67	7	58.33	24	41.38	34	58.62	0.000
4/4	Profiting from feedback of evaluation results to improve its works	10	83.33	2	16.67	38	65.52	20	34.48	1.464
4/5	Comparing data before and after corrective procedures	8	66.67	4	33.33	20	34.48	38	65.52	4.291
4/6	Analyzing the gap between the required results and the actual ones of the used corrective procedures to verify that new changes work as planned	9	75.00	3	25.00	22	37.93	36	62.07	5.537

4/7	Preparing a report permanently including measurements and submitting to the decision makers	10	83.33	2	16.67	38	65.52	20	34.48	1.464
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Chi square Distribution (0.05.2) = 5.991

It is clear from table number (8) of the second factor – third dimension: evaluation and examination, there are no significant differences between the two research sample groups about phrases of the third dimension as Chi square Distribution was less than its tabular value at level (0.05) and ranged between (0.000: 5.537).

And the results of phrases number (4/2, 4/4, 4/5, 4/6, 4/7) indicated agreement of the two research responses at percentage (66.67 : 83.33 %) for supreme and middle administration and at (65.52 : 34.48 %) for executive administration subject to evaluating permanent improvement of performance of youth and sports directorate via a clear performance indicators, profiting from feedback of evaluation results, analyzing the group between the required results and the actual ones of the used corrective procedures.

**Ismail Abdelfattah (2019):** indicates that follow up and evaluation is a function focusing on measuring and correcting means of performance, deviations and errors. (N: 133)

Also results of study of **Dalia Taha Mahmoud (2013) (1)** focus on improving work circumstances and correcting errors upon occurrence.

For phrases number (4/1, 4/2) both research groups agreed by a law percentage reached (33.33 %), (41.67 %) "supreme and idle administration", and (24.14 %), (41.38 %) "executive administration" respectively that evaluating permanent improvement at the directorate through a specialized unit for permanent review and evaluation.

Study of **Riham Mohamed Aly (2019) (19)** recommends the importance of applying control and follow system to performance on a regular basis.

The researcher considers evaluation and examination as one of the most important administrative functions as it identifies the gaps between results required to be achieved and what was reached and how far the director's sports specialists can fulfill their tasks.

**Table (9) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage for Response in the Second Factor:**

**Procedures steps of Kaizen's Methodology – Fourth Dimension: Response to Suggested Improvements**

Serial	Phrase content	Supreme and middle administration N= 12		Supreme and middle administration N= 58		Chi square
		Agreeing	Disagreeing	Agreeing	Disagreeing	

		C	%	C	%	C	%	C	%	Distribution
5										
5/1	Adopting changes that achieved the require results	11	91.67	1	8.33	47	81.03	11	18.97	0.791
5/2	Taking necessary procedures to execute these changes	11	91.67	1	8.33	43	74.14	15	25.86	1.733
5/3	Establishing norms changes	10	83.33	2	16.67	31	53.45	27	46.55	3.660
5/4	Training employees of youth and sports directorate on executing required changes	8	66.67	4	33.33	20	34.48	38	65.52	4.291
5/5	Correcting deviations of non conformity with the approved performance indicators	9	75.00	3	25.00	37	63.79	21	36.21	0.554
5/6	Profiting from developing information technology and new communication related to the directorate's business	11	91.67	1	8.33	49	84.48	9	15.52	0.419

Chi square Distribution (0.05.2) = 5.991

It is clear from table number (9) of the second factor – forth dimension: response to improvements, there are no significant differences between the two research sample groups about phrases of the third dimension as Chi square Distribution was less than its tabular value at level (0.05) and ranged between (0.419: 4.291).

From results of phrases number (5/1, 5/2, 5/3, 5/4, 5/5, 5/6) it is clear that all groups' responses were that youth and sports directorate shall respond to the suggested improvements via adopting changes that achieved the required results, taking suitable procedures to achieve these changes, training employees on executing required changes, profiting from information technology and communication development at percentage (66.67 : 91.76 %)for supreme and middle administration and (34.48 : 84.48 %) for executive administration.

**Ahmed Abdelsalam Mousa (2016)** clarified the importance of execution agrees with what was determined. (1 : 37)

The researcher believes that after evaluation and examination, the last step related to

responding to suggested improvements arises, according to Kaizen's methodological procedures.

**Table (10) results of repetition percentage, Chi square Distribution and outweighed percentage for response in the third factor: Effects of Using (Kaizen) Methodology to Improve Permanent Performance of Achieve Excellent Organizational Performance at Youth and Sports Directorate in Alexandria – First Dimension: Improving Employees' Performance at Youth and Sports Directorate**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
6										
6/1	Developing their abilities to adapt with changes and new circumstances	9	75.00	3	25.00	39	67.24	19	32.76	0.278
6/2	Changing the directorate's employees culture through training and learning	9	75.00	3	25.00	27	46.55	31	53.45	3.221
6/3	Discovering new creative potentials inconformity with acting according to different situations	10	83.33	2	16.67	45	77.59	13	22.41	0.195
6/4	Developing employees' experiences, efficiency and potentials for solving problems	10	83.33	2	16.67	49	84.48	9	15.52	0.010
6/5	Enabling and motivating the directorate's employees	9	75.00	3	25.00	41	70.69	17	29.31	0.091
6/6	Appreciating and awarding creative employees	11	91.67	1	8.33	30	51.72	28	48.28	*6.537
6/7	Preparing a leading environment interactive with results desiring to make change	10	83.33	2	16.67	28	48.28	30	51.72	4.924
6/8	Reducing differences between administrative levels at youth and sports directorate	9	75.00	3	25.00	19	32.76	39	67.24	*8.392
6/9	Depending on group work "team work"	9	75.00	3	25.00	23	39.66	35	60.34	5.005

Chi square Distribution (0.05.2) = 5.991

It is clear from table number (10) of the third factor – first dimension: improving employees' performance, there are no significant differences between the two research sample groups about phrases of the third dimension as Chi square Distribution was less than its tabular value

at level (0.05) and ranged between (0.010 : 4.924) except for phrases number (6/6, 6/8).

Results of phrases number (6/1, 6/2, 6/3, 6/4, 6/5, 6/7, 6/9) indicated agreement of the two research groups between (75.00 : 83.33 %) for supreme and middle administration and (39.66 : 84.48 %) for executive administration to indicate dependence on group work, preparing on interactive leading environment assisting in applying Kaizen's methodology to improving employees performance.

This agrees with results of study of **Mohamed Gabr Elgharawy (2019) (1<sup>2</sup>)** indicating the importance or training courses to develop knowledge and skills related to and developing function.

**Hassan Ahmed Elshafaey (2018)** confirms the importance of adopting methods and behaviors enabling employees to authorizing behaviors and enhancing inferiors' potentials. (Y: 83)

But for phrases number (6/6, 6/8) they are the most contrasted ones as supreme and supervisors administration agreed at (91.67 %), (75.00 %) respectively on the applying Kaizen's methodology improves employees performance via appreciating and awarding creative employees, reducing difference between administrative levels while executive administration's response reached (51.72 %), (32. 67 %).

Opinions of executive administration agree with study of **Sherihan Yehia Moursy (2017) (21)** **Rihab Aly Amin, Riham Amin Hamza (2015) (16)** that creative employees receive neither incentives nor awards contributing to job satisfaction.

**Hoda Omar Abdalla (2018)** confirms that incentives motivate employees. (A: 47)

**Riham Amin Hamza (201<sup>o</sup>) (17)** recommends providing training courses to sports specialists and sports field leaderships.

**Table (11) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage for Response in the Third Factor: Effects of Using (Kaizen) Methodology to Improve Permanent Performance of Achieve Excellent Organizational Performance at Youth and Sports Directorate in Alexandria – Second Dimension: Improving Operations Performance**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
7										
7/1	Focusing on improving work climate or environment and any factors supporting change operations	9	75.00	3	250.00	24	41.38	34	58.62	4.510

7/2	Identifying factors supporting change operations	11	91.67	1	8.33	31	35.45	27	46.55	*6.051
7/3										
7/3/1	Financial resources	11	91.67	1	8.33	52	89.66	6	10.34	0.045
7/3/2	Substantial potentials	11	91.67	1	8.33	49	84.48	9	15.52	0.0419
7/3/3	Time	10	83.33	2	16.67	21	36.21	37	63.79	*8.950
7/3/4	Operating operations	10	83.33	2	16.67	18	31.03	40	68.97	*11.331
7/4										
7/4/1	Substantial potentials	11	91.67	1	8.33	49	84.48	9	15.52	0.419
7/4/2	Human potentials	11	91.67	1	8.33	42	72.41	16	27.59	2.004
7/4/3	Financial resources	10	83.33	2	16.67	44	75.86	14	24.14	0.315
7/5	Identifying restrictions of executing quality norms of every department of youth and sports directorate	9	75.00	3	25.00	32	55.71	26	44.83	1.611
7/6	Identifying tasks for employees to be trained on inside every directorate's department	9	75.00	3	25.00	26	44.83	32	55.17	3.621
7/7	Creating new work mechanisms	8	66.67	4	33.33	22	37.93	36	62.07	3.352
7/8	Clarifying work procedures for all youth and sports directorate's employees	11	91.67	1	8.33	47	81.03	11	18.97	0.791

Chi square Distribution (0.05.2) = 5.991

It is clear from table number (11) of the third factor – second dimension: improving performance of operations, there are no significant differences between the two research samples groups about phrases of the second dimension as Chi square Distribution was less than its tabular value at level (0.05) and ranged between (0.315 : 4.510) except for phrases number (7/2, 7/3/3, 7/3/4) as (Ca 2) value exceeded its tabular value and ranged between (6.051 : 11.331).

For phrases number (7/2, 7/3/3, 7/3/4) they are the most contrasted ones in responses of the research groups as while supreme and supervisory administrations agreed at (83.33: 91.67 %) upon that applying Kaizen's methodology improves operations performance via identifying factors supporting change, identifying aspects of waste inside, we find that executive management achieved a percentage from

(31.03: 53.45 %).

This agreed with results of study of **Riham mohamed Aly (2019 (19))** indicating the increase of communication efficiency between individuals and units through coordination and integration of works between them and quick obtainment of data and information to provide services and overcome waste.

Also from results of phrases numbers (7/1, 7/3/1, 7/3/2, 7/4/1, 7/4/2, 7/4/3, 7/5, 7/6, 7/7, 7/8) it is clear that there is an agreement between most of groups response that applying Kaizen's methodology improves operations performance by focusing on improving work environment, identifying waste aspects, identifying needs of all directorate's departments of substantial and human potentials, identifying quality norms execution barriers, and crating new work mechanisms at (66.67 : 91.76 %) for supreme and middle administration and (37.93 : 89.66 %) for executive administration.

This agrees with results of **Dalia Taha Mahmoud Youssef (2013) (٦)** of that using Kaizen's method requires not only new financial resources but the best use of the organization's assets.

**Table (12) Results of Repetition Percentage, Chi square Distribution and Outweighed Percentage for Response in the Third Factor: Effects of Using (Kaizen) Methodology to Improve Permanent Performance of Achieve Excellent Organizational Performance at Youth and Sports Directorate in Alexandria – Third Dimension: Improving Performance of Youth and Sports Directorates Performance in Alexandria**

Serial	Phrase content	Supreme and middle administration N= 12				Supreme and middle administration N= 58				Chi square Distribution
		Agreeing		Disagreeing		Agreeing		Disagreeing		
		C	%	C	%	C	%	C	%	
8	Youth and sports directorate is able to:									
8/1	Consolidating good means and norms of work procedures inside the directorate with following international norms	8	66.67	4	33.33	24	41.38	34	58.62	2.562
8/2	Responding effectively to variable:									
8/2/1	Internally	10	83.33	2	16.67	48	82.76	10	17.24	0.002
8/2/2	Externally	11	91.67	1	8.33	47	81.03	11	18.97	0.791
8/3	Expecting beneficiaries desires and requirements through:									
8/3/1	Questionnaire from	7	58.33	5	41.67	15	25.86	43	74.14	4.865
8/3/2	Social media	11	91.67	1	8.33	52	89.66	6	10.34	0.045
8/3/3	Complaints and suggestions boxes	10	83.33	2	16.67	43	74.14	15	25.86	0.457
8/3/4	Interviews	9	75.00	3	25.00	20	34.48	38	65.52	* 6.727
8/4	Developing youth and sports directorates competitiveness	10	83.33	2	16.67	47	81.03	11	18.97	0.035
8/5	Using permanent improvement tools efficiently	8	66.67	4	33.33	21	36.21	37	63.79	3.802



Chi square Distribution (0.05.2) = 5.991

It is clear from table number (12) of the third factor – third dimension: improving the directorate's performance, there are no a statistical significant differences between the two research sample groups about phrases of the second dimension as Chi square Distribution was less than its tabular value at level (0.05) and ranged between (0.002: 4.865) except for phrases number (8/3/4) as (Ca 2) value was (6.727).

Results of phrases numbers (8/1, 8/2/1, 8/2/2, 8/3/1, 8/3/2, 8/3/3, 8/4, 8/5) indicated agreement of all the two types responses at (66.67 : 91.76 %) for supreme and middle administration at (37.93 : 89.66 %) for executive administration that youth and sports directorate is able to consolidate good methods and norms of work procedures inside the directorate, efficient response to variables in both internal and external environment, expect beneficiaries desires, increasing youth and sports directorate's competiveness, using permanent improvement tools efficiently.

Results of study of **Walid Abdelhafiz (2014) (24)**, **Aiman Abdelhamid (2013) (4)**, confirm that using information technology in administrating organizations according to beneficiary's needs develops the organization's efficiency.

Also study of **Riham Amin Hamza (2017) (18)** recommends the importance of having a database contributing to improvement operations.

But phrases number (8/3/4) contradictory research groups subjects responses are clear, as while supreme and supervisors administrations agreed at (75.00 %) upon that the directorate is able to expect beneficiaries desires, executive administration's opinions disapproved the same at (34.48 %).

**Ahmed Mohamed Ghonim (2009)** indicates establishing a database including information about beneficiaries expectations desires and identifying their tastes changes (3: 334).

The researcher believes that current international variables of the directorate's surrounding environment impose applying new scientific methods to administration to deal with such challenges and carrying out permanent improvement operations.

### Conclusions:

- There are no culturing courses to convince all administrative levels employees with all advantages of applying Kaizen's methodology.
- Not constituting groups of employees "quality departments" to solve problems and reach new changes.
- Supreme administration of youth and sports directorate plans via ordering all problems facing the directorate according to priority.
- There are shortage in suggesting different ideas and suggestions to solve such problem and carry out a plan for the required improvements.
- None analyzing the gap between the required results and the actual results of the used corrective procedures to verify that new changes work as planned.

- Weak response of youth and sports directorate to the suggested improvements and no suitable procedures are taken to execute changes.
- No waste aspects are determined inside every department of youth and sports directorate including wasting time, operation processes.
- Non effective response to variables of external and internal environment and non expecting beneficiaries' desires and requirements.

### Recommendation

- Applying steps of permanent improvement, PDCA course inside youth and sports directorate as it is the means of permanent improvement by making a field study to know any dimensions needing actual application before other ones.
- Employees should be enabled to join cultural courses to know the importance of using Kaizen methodology.
- Focusing on permanent training of all employees as per occupational needs and measuring the training effects.
- Establishing a mechanism to motivate employees' creative efforts to encourage creation.
- Focusing on measuring beneficiaries desires and needs on a permanent basis as they are the key of change and development success at the directorate.
- There should be a unit inside the organizational structure to carry out permanent review and evaluation.

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