The Relationship between Administrative Empowerment and Continuous Improvement: An Empirical Study

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Abstract

This study aimed to identify the impact of administrative empowerment on applying continuous improvement in the Aqaba Special Economic Zone Authority. To achieve this, the researcher developed and evaluated a questionnaire and distributed it to a sample of 400 employees. A set of (321) copies of the questionnaire was retrieved, while (9) copies were rejected due to lack of information. The researcher used statistical methods (descriptive and analytical) to answer the study questions, test, and analyze its hypotheses. The results of the study showed that the application of administrative empowerment represented by its dimensions (Sharing Information, Autonomy and Freedom of Action, Reinforcement, work teams) impacted continuous improvement in the dimensions of PDCA in terms of dimensions (Plan, Do, Check, Act) In Aqaba Special Economic Zone Authority. This indicates that the administrative practices, instructions, and guidelines of the researched organization aim to achieve an increase in continuous improvement with a "high" positive degree.

The study recommended establishing a center to train the employees to use the system. In addition to the need to make the required changes in the organizational structure by selecting experienced

employees' work teams to execute jobs more. Finally, the study concluded that there must be a long-term commitment to continuous improvement and applying more administration tools.

Key-words: Administrative Empowerment, Continuous Improvement, Aqaba Special Economic Zone Authority.

1. Introduction

Few businesses can thrive in today's economy if they keep doing what they're doing Hirzel, Leyer, & Moormann, (2017). the organizations that seek entrepreneurship implement the standards of continuous improvement and allow distinguished employees' creativity (Newman, Neesham, Manville& Tse, 2018). At the national level, some Jordanian organizations set out to implement international quality management, and some have achieved excellence at the global level (Ali, Bakar, & Omar, 2016; Ali, & Omar, 2016). Locally, Aqaba Economic Zone Authority, as a service organization in the first place. It seeks to provide services and works to attract investments to Jordan in a way that serves the national economy and provides job opportunities for the governorate's people Jawabreh, Jahmani, Khaleefah, Alshatnawi, & Abdelrazaqe, 2020). It also works on developing the local community to contribute to developing youth capabilities by giving courses that contribute to providing them with job opportunities. Therefore, it was necessary to study the dimensions of the empowerment culture and its impact on implementing continuous improvement. Consequently, this study was carried out to clarify the concept of constant improvement in its dimensions, benefits, and obstacles. In addition to study, the impact of the empowerment culture on continuous improvement, and to clarify the most important aspects of the concept of empowerment and highlight the levels of empowerment in the Aqaba Economic Zone Authority and identify the quality standards adopted within it. The research paper has organized as follows in section 2 summarizes the related works to our study. In section 4, the theoretical framework develops with its hypotheses, while section 4 analyzes these hypotheses. Finally, section 5 concludes the main results, provides implications and recommendations for future works.

2. Theoretical Background

In light of the rapid changes occurring in the world and the unstable business environment (Ali, Hasan, & Oudat, 2021), in addition to the spread of the Covid 19 epidemic around the world, it was necessary to focus on customers and aspirants for services to provide them in a way that ensures that they adequately reach the customers' requirements. Therefore, it is necessary to implement

administrative empowerment and increase its role in applying continuous improvement to reach the highest service provision standards in Aqaba Special Economic Zone Authority. To ensure the development and provide appropriate solutions in the field of services (Oudat, & Ali, 2021). Aqaba Economic Zone Authority provided a one-stop service to minimize standing and waiting periods. This was done to meet the changing needs of societies to emerge from the standards of health protocols and social distancing of the beneficiaries until the end of the transaction. The beneficiary received a message on his mobile phone informing him/her of completion of the transaction. Moreover, all these practices contributed to the survival of industrial and service business organizations and their ease and flexibility.

3. Previous Literature

Al-Rahahleh, (2020) investigated effect of Cognitive Empowerment on Human Resources Development, the result of cognitive empowerment on human resource development was positive and statistically significant. Accordingly, cognitive empowerment has a significant role in the company; the study also suggested providing a suitable climate of employees to share the knowledge and increasing learning, taking care of the human resource development to increase the productivity by best maximizing exploitation of employees and flourish the tools to create responsibility. The study ended by confirming that empowerment has an essential role in improvement and development by workers first because they are the first pillar in its application. Mahmoud (2019) analyzed of the views of a sample of decision-makers in the General Company for Food Industries, demonstrated that there is a strong and positive correlation between leadership and administrative empowerment in the company's subject of the study. The study also demonstrated that the organizational variables that affect workers' creativity and development in government agencies are leadership style, training; moral incentives; systems, and procedures. The effect of the material incentives variable and the communication and information variable on creativity and administrative development to serve the organization's success has not been proven. Almutairi study (2019) examine the relationship between administrative empowerment and organizational commitment among 397 employees in the ministry of housing in Saudi Arabia. The results also revealed that there was a positive and significant relationship between administrative empowerment and organizational commitment. Besides, the result of this study showed that there was a positive and significant relationship between the dimensions of administrative empowerment and organizational commitment. Hirzel, Leyer, & Moormann, (2017) Investigated the task of rising workers' levels of quality improvement (CI). Data

was collected using questionnaires on a team basis over a 2.5-year cycle of 780 participants. According to the results, after introducing a CI program in the event, there is a substantial rise in employees' CI empowerment over time, which has a favorable yet time-lag relationship with the degree of CI implementation.

Conceptual Framework and Hypotheses Development

3.1. Conceptual Framework and Study Model

Based on those previous studies, the researcher established the proposed study model for the relationship of administrative empowerment to continuous improvement in light of the changes taking place among the priorities that contribute to increasing the implementation of continuous improvement in various fields. The following diagram clarifies the model of the study.

Figure 1- The Proposed Model of the Study
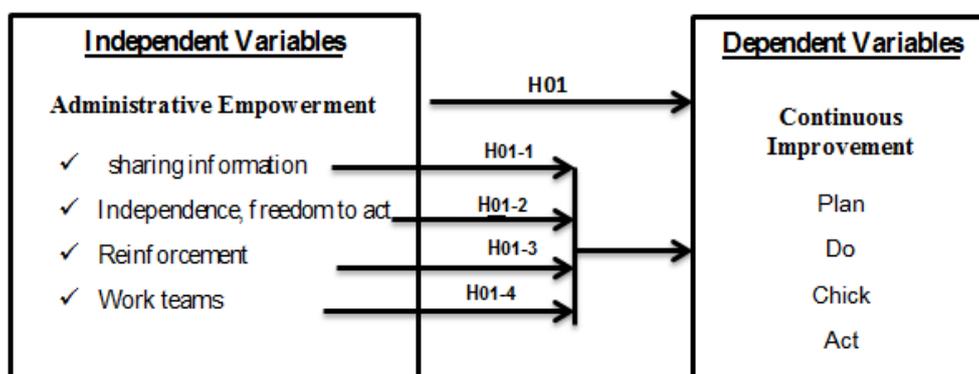
3.2. Study Hypotheses

The study problem aimed to investigate the impact of administrative empowerment on making decisions of administrative empowerment. It considered that administrative empowerment includes 4 variables (information sharing, independence and freedom of action, reinforcement, work teams). In contrast, it considered making decisions of administrative empowerment as perceived by the sample individuals working at Aqaba Special Economic Zone Authority (information sharing, independence and freedom to act, reinforcement, and work teams) in implementing continuous improvement its dimension PDCA. The impact of the administrative empowerment on many administrative processes within organizations has attracted numerous studies such as (Al-bdareen, 2020; Robert, et.al., 2000;

Al-Matari, 2019; Hirzel, Leyer, & Moormann, 2017; Aburuman, 2016) since empowerment is a source for qualified individuals.

The Main Hypothesis of the Study

H01: Administrative empowerment has no statistically significant impact on implementing Aqaba Special Economic Zone Authority's continuous improvement.

The Sub-hypotheses of the Study

H01-1: information sharing has no statistically significant impact on implementing Aqaba Special Economic Zone Authority's continuous improvement.

H01-2: independence and freedom of action has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority

H01-3: reinforcement has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority.

H01-4: work teams have no statistically significant impact on implementing Aqaba Special Economic Zone Authority's continuous improvement.

4. Study Methodology

The study adopted the descriptive analytical approach utilizing a questionnaire to investigate the impact of the administrative empowerment by its dimensions (information sharing, independence and freedom to act, reinforcement, and work teams) as perceived by the sample's individuals on implementing continuous improvement by its dimension PDCA. This approach also included a literature survey method by referring to ready-made Arab and foreign resources, intending to build the theoretical framework for this study, in addition to using the field survey method to collect data using the study tool, and to analyze it statistically to test the validity of hypotheses and answer their questions.

4.1. Population and Sample

The study population included all employees of the Aqaba Special Economic Zone Authority in southern Jordan. The study sample consisted of 400 participants from the Aqaba Special

Authority's employees distributed at all administrative levels. The study tool was a questionnaire to measure the impact of administrative empowerment on the application of continuous improvement. According to the size criterion, the researcher developed a questionnaire to measure these factors at Aqaba Special Economic Zone Authority (ASEZA) as its number determined it. Consequently, all the Aqaba Special Economic Zone Authority employees were selected as shown in Table (1).

Table 1- Sample of the Study

ASEZA	Male	Female
Secondary or less	1,551	52
Diploma	99	48
Bachelor	303	135
Higher studies	41	14
Sum	1,994	249

Source: http://www.dos.gov.jo/owa- user/owa/emp_show_t7

The study sample included 400 employees from all operating departments of Aqaba Special Economic Zone Authority. By comparison with the study population, which reached (2243) employees, it appears that the sample rate is 17.8%. The researcher distributed copies of the questionnaire to 400 individuals distributed in proportion to the number of employees working in the authority's directorates in the Aqaba Economic Zone. The number of these directorates reached 25 directorates belonging to five chief commissioners and the presence of three regions outside the Aqaba Economic Zone, all of which with their employees constitute a true example of the implementation of continuous improvement (subject of the study). The correct responses reached 312 copies with a percentage of 78% of the total study sample that is considered acceptable in this type of research.

Description of Demographic Characteristics of the Individuals of the Sample

It is indicated from table (2) the males counted 214 with a percentage of equals 66.7% compared to 107 females with a percentage of 33.3% that means the females' percentage is lower than that of the males at Aqaba Special Economic Zone Authority. This percentage could be normal although the difference is not so big. In accordance to Age variable, it is noticed that the high percentage lies in the class of (41-50 years) with 173 individuals with a percentage of (54.0%), while the class (10-15 years) includes the majority of the individuals according to experience variable with 154 individuals and percentage of (48.0%).

It is also evident from the same table that the majority of the individuals of the sample of the study are Bachelor holders counting 145 people with a percentage of (45.2%) as well the table shows that most individuals of the sample the study are officials counting 169 with a percentage of (52.6%).

Table 2- Distribution of the Individuals of the Sample According to Demographic Variables

Variable		Frequency	Percentage
Gender	Male	214	66.7
	Female	107	33.3
Age	Less than 30 years	26	8.0
	31 – 40 years	118	37.0
	41 – 51 years	173	54.0
	51 years or more	4	1.0
Experience	5 years or less	19	5.9
	6 – 10 years	55	17.1
	10 – 15 years	154	48.0
	16 years or more	93	29.0
Educational Level	Secondary	31	9.6
	Diploma	122	38.0
	Bachelor	145	45.2
	Higher studies	23	7.2
Managerial level	General Manager / Deputy General Manager	4	1.3
	Director of the Department	12	3.7
	Section Head / Division	136	42.4
	Official	169	52.6

4.2. Data Analysis

The study tool - the questionnaire - was built of an open-ended type, and that was clear from the nature of the questions included in the questionnaire. The study also benefited from previous research and studies and a good number of books and references on the topic of empowerment and its relationship to the application of continuous improvement in Arabic and English.

Statistical Methods Used

Statistical Package for Social Sciences (SPSS) was used in the various statistical analyses; a significance level of (0.05) was adopted to interpret the tests results, which corresponds to 95% confidence level of the performed tests. The statistical methods used to test the hypotheses formulated to answer the questions of the study come as follow:

Cronbach's Alpha Test: to identify the internal consistency of the items of the questionnaire.

Frequencies and percentages: to identify the distribution of the demographic characteristics of the individuals of the sample as well as to sum and to categorize the perspectives of the individuals of the study about the variables of the study.

The variables of the study were measured using a five-point Likert scale to identify the approval degrees where they divided as follows: (1) very low, (2) low, (3) moderate, (4) high, (5) very high, this scale (Hair, Tomas, Hult, Ringle, & Sarstedt, 2014). In order to determine the degree of convenience, the researcher has identified 3 levels that are: high, Moderate and low, according to the following equation.

$$Interval\ Length = \frac{upper\ limit\ of\ the\ alternative\ -\ lower\ limit\ of\ the\ alternative}{.\ of\ Levels}$$

Table (3) illustrates the adopted scale for determining the agreement level of the arithmetic average.

Table 3- Approval Level of Arithmetic Average

Arithmetic average	Convenience level
1 - 2.33	Low
2.34 - 3.67	Moderate
3.68 – 5	High

1) Regression Test to identify the impact of the independent variable of the studies in implementing continuous improvement. T – Values were evaluated to measure the possibility of the existence of a significant relationship between each independent variable and the dependent variable related to the hypothesis under test. This test is based upon the null and the alternative formulation of the hypothesis:

H_0: B_1=0 There is no linear relationship between the independent variable and the dependent variable.

H_0: B_1≠0 There is a linear relationship between the independent variable and the dependent variable.

This test's statistical decision rule states that the null hypothesis is rejected in case P (Sig. value) is less than or equal to 0.05.

Pearson correlation coefficient (R) between each independent variable and the dependent variable is also used. If P (Sig. level) is less than or equal to 0.05, the relationship is considered statistically significant.

ANOVA test was adopted to evaluate F-values that measure the significance of the relationship between the dependent variable and the group of the independent variables included in the regression model. This test is based on the following formulation for the null and the alternative hypotheses:

$$H_0: \mu_1 = \mu_2 = \mu_3 \ldots = \mu_k$$
$$H_1: Means\ are\ not\ all\ equal.$$

Where k = the number of independent comparison groups, the alternative hypothesis, as shown above, captures all possible situations other than equality of all means specified in the null hypothesis.

The decision rule: P-value $\leq \alpha$: The differences between some of the means are statistically significant.

If the p-value is less than or equal to the significance level (P≤0.05), you reject the null hypothesis and conclude that not all of the population means are equal.

The Validity of the Study Tool

In order to test the validity of the study tool developed, the researcher has used face validity by distributing the tool of the of the study to 5 specialized arbitrators in the field of the study from Jordanian universities so as to consider their estimations about the items of the questionnaire and their convenience to the subject of the study, as well the composition of these items and their content. The tool has 80% approval of the validity of the scale to be applied to the individuals of the study according to the opinions of the arbitrators. The researcher performed all the modifications required by the arbitrators that made it valid for the purposes it was developed for. Bloom has indicated that an approval percentage of 75% or more is sufficient to ascertain the validity of the test (Bloom et al., 1983).

The Reliability of the Study

In order to test the reliability of the tool of the study Cronbach's Alpha was used to evaluate the internal consistency coefficient as a whole and the correlation coefficient of each item of the tool

of the measured field and the tool as a whole. This method is useful to identify the items that lowers the reliability of the tool to be either modified or excluded from the tool. Statistically, Cronbach's Alpha coefficient greater than or equal to 70% are considered acceptable in behavioral and managerial studies. It is indicated that Cronbach's Alpha in this study equals 83% that is acceptable for the purposes of practical research.

Statistical Analysis, Answering Study Questions, and Hypothesis Testing

The First Part: Answering Study Questions

The first main question of the study: What is the extent of the implementation and the use of administrative empowerment in Aqaba Special Economic Zone Authority? This question was answered through the following sub-questions.

The first sub-question: What is the extent of implementing and using sharing information in Aqaba Special Economic Zone Authority?

It is evident from Table (3) that the overall mean of information sharing is equal to (4.164) with a standard deviation of (.710). This result indicates that workers' degree of practice in the Aqaba Special Economic Zone Authority of sharing information is high. The dimension "Get the information necessary to complete my work at any time" ranked first with an arithmetic average of (4.164). Table (3) shows the averages for the items ranged from (4.418-3.959) so the extent of the implementation and the use of sharing information in Aqaba Special Economic Zone Authority is of a high level.

Table 4- Mean and Standard Deviation of the Information-sharing Questions

No.	Item	Mean	S.D.	Rank	Convenience level
1.	Get the information necessary to complete my work at any time.	4.418	0.610	1	High
2.	There is no information kept from me in my field of work.	4.319	.7390	2	High
3.	Organization workers more understand their roles because information is available to them.	3.992	.8030	4	High
4.	There are various and clear means and channels for information flow in the company.	4.130	.7500	3	High
5.	The organization seeks to make information available to workers to develop their self-commitment	3.959	.8070	5	High
	Overall Mean	4.164	0.710		High

The second sub-question: What is the extent of the implementation and the use of independence and freedom of action in Aqaba Special Economic Zone Authority?

It is evident from Table (4) that the overall mean of independence and freedom to act is equal to (3.835) with a standard deviation of (0.736). This result indicates that the Aqaba Special Economic Zone Authority workers practice their jobs independently and act freely to a high degree. Table (4) shows the averages for the items ranged from (4.104 - 3.582).

Table 5- Mean and Standard Deviation of Independence and Free Action Questions

No.	Item	Mean	S.D.	Rank	Convenience level
6.	I have the ability to do my job in different and creative ways.	**3.582**	1.065	5	Moderate
7.	I freely express my opinion on my business matters	4.104	.7420	1	High
8.	The administration supports exercising vested power to individuals	3.910	.7280	3	High
9.	There is always new authorization for me.	4.022	.7880	2	High
10.	My suggestions are often taken into consideration.	3.813	.9090	4	High
11.	I always solve problems on my own.	3.582	1.065	5	Moderate
	Overall Mean	3.835	0.736		High

The third sub-question: What is the extent of the implementation and the use of reinforcement in Aqaba Special Economic Zone Authority?

It is evident from Table (6) that the overall mean of reinforcement is equal to (3.753) with a standard deviation of (.926). This result indicates that the Aqaba Special Economic Zone Authority workers perceive the reinforcement practice at their jobs to a high degree. Table (6) shows the averages for the items ranged from (3.964 – 3.474) so the extent of the implementation and the use of reinforcement in Aqaba Special Economic Zone Authority is of high to moderate degree, according to the individuals of the sample.

Table 6- Means and Standard Deviations of Reinforcement

No.	Item	Mean	S.D.	Rank	Convenience level
12.	One of the main reasons for continuing to work in this department is that it offers me advantages that are not available in other departments.	3.674	.707	5	High
13.	There is an appreciation for my effort put into the work	3.861	.841	2	High
14.	The salary I get is commensurate with my efforts at work.	3.964	.695	1	High
15.	There is fairness in the job promotions system in place.	3.782	.867	13	High
16.	There is fairness in the rewards system in place.	3.765	.820	4	High
17.	Top management appreciates my efforts at work.	3.474	.915	6	Moderate
Overall Average		3.753	.926		High

The fourth sub-question: What is the extent of the implementation and the use of work teams in Aqaba Special Economic Zone Authority?

It is evident from Table (6) that the overall mean of reinforcement is equal to (3.620) with a standard deviation of (.752). This result indicates that the Aqaba Special Economic Zone Authority workers perceive the reinforcement practice at their jobs to a high degree. Table (6) shows the averages for the items ranged from (3.896 - 3.209) so the extent of the implementation and the use of reinforcement in Aqaba Special Economic Zone Authority is of high to moderate degree, according to the individuals of the sample.

Table 7- Means and Standard Deviations of Work Teams

No.	Item	Arithmetic Average	S.D.	Rank	Convenience Level
18.	The Aqaba Zone Authority administration encourages teamwork	3.376	.8490	5	Moderate
19.	The management has specialized work teams to accomplish the daily tasks	3.896	0.869	1	High
20.	The management believes in the importance of teamwork	3.815	0.870	2	High
21.	Colleagues feel comfortable working together	3.776	.8730	3	High
22.	Work teams at the Aqaba Zone Authority are able to make decisions related to their work	3.209	1.035	6	Moderate
23.	The Aqaba Zone Authority administration forms work teams from multiple organizational levels	3.648	.9980	4	Moderate
Overall Average		3.620	0.752		High

The second question: What is the extent of practice of continuous improvement implementation in Aqaba Special Economic Zone Authority?

It is evident from Table 8 that the overall average of the items describing continuous improvement (PDCA) equals 3.702 with a standard deviation of 0.707. This result indicates that the basic skills to implement continuous improvement are available to the individuals since their averages range (3.896 – 30295).

Table 8- Means and Standard Deviations of Continuous Improvement

No.	Item	Arithmetic Average	S.D.	Rank	Convenience Level
24	The authority adopts a clear policy of quality and continuous improvement	3.717	.6900	6	High
25	The administration works to provide all the necessary resources for the continuous development of its systems	3.489	.7010	8	Moderate
26	Aqaba Authority is interested in achieving continuous improvement in all aspects of work.	3.831	.6340	3	High
27	There is a change in Aqaba authority in providing services with speed and accuracy.	3.684	.7530	7	High
28	Management listens to its employees and encourages them in making decisions related to continuous improvement.	3.896	.5180	1	High
29	Statistical methods are used to check achievement on an ongoing basis.	3.295	.8050	9	Moderate
30	The authority improves customer awareness of it and of the services it provides.	3.804	.6480	4	High
31	The authority applies a documented policy of quality and employee participation	3.837	.7720	2	High
32	The authority is keen to achieve complete satisfaction of its customers through the services provided.	3.766	.7780	5	High
Overall average		3.702	.707		High

The Third Main Question: What is the relationship of administrative empowerment to the management of continuous improvement applications in Aqaba Special Economic Zone Authority?

This is answered by formulating the study's hypothesis stating that administrative empowerment has no statistically significant impact on implementing continuous improvement within the Aqaba Special Economic Zone Authority and its sub-hypotheses.

The descriptive statistics shown in table (9) illustrate that (Information Sharing) variable has got a mean of 4.164 with a standard deviation of .710. According to table (2), this variable has got a high degree of convenience, (Independence and Freedom to Act) variable has got a mean of 3.835 with a standard deviation of .736. According to the table (3), this variable has got a High degree of convenience, (Reinforcement) variable has got a mean of 3.753 with a standard deviation of .926. According to the table (3), this variable has a high degree of agreement, (Work Teams) variable has a mean of 3.620 with a standard deviation of .752. According to table (3), this variable has a moderate degree of agreement, (Continuous Improvement) variable has a mean of 3.702 with a standard deviation of .515. According to the table (3), this variable has got a moderate degree of agreement.

To check that a distribution of scores is normal, we need to look at kurtosis values and skewness. The values for skewness and kurtosis between -2 and +2 are considered acceptable in order to prove normal univariate distribution (George & Mallery, 2010). It is obvious from table (2) that the values of all variables considered in this study lie in this range, so the distribution of these variables are considered normal.

Table 9- Descriptive Statistics

	Mean	Std. Deviation	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Information Sharing	4.16440	.709580	-1.392	.166	1.193	.331
Independence & Freedom to Act	3.83495	.736414	-.353	.166	-.561	.331
Reinforcement	3.75338	.926390	-.377	.166	-1.215	.331
Work Teams	3.62008	.752202	-.204	.166	-.859	.331
Continuous Improvement	3.79961	.514628	-.221	.166	-.442	.331
Valid N (listwise)						

In order to test this Hypothesis, multiple regression was used, It is necessary to examine the independence of the independent variables and that there is no interference between them to apply linear regression analysis in order to do that Multicollinearity test was used, the values of VIF should be less than 10 and the values of Tolerance should be more than 0.2 (Hair et al., 2006). Table (10) shows that the minimum value of Tolerance is .843 whereas the maximum value of VIF is 1.186,

which prove the independence of the variables of the study and that they have no interference with each other.

Table 10- Multicollinearity Test

Model		Collinearity Statistics	
		Tolerance	VIF
	Information Sharing	.843	1.186
	Independence & Freedom to Act	.914	1.094
	Reinforcement	.918	1.090
	Work Teams	.905	1.105

Bivariate Pearson correlation test was used to ensure that the correlation coefficient between each variable with the other independent variables does not exceed 80% (Hair et al., 2006) in order to verify that there is no interference between the independent variables so as not to affect it interpreting ability of the dependent variable negatively. This test enhances the certainty degree of the variables' independence and confirms its validity and readiness for different Regression analyses.

Table 11- Correlations

	Information Sharing	Independence & Freedom to Act	Reinforcement	Work Teams
Information Sharing	1			
Independence & Freedom to Act	.233	1		
Reinforcement	.223	.224	1	
Work Teams	.305	.104	.108	1

It is obvious from table (11) that the correlation coefficient of each independent variable with the other independent variables included in the study is less of the permitted upper level (0.80) which indicates that there is no high correlation between the independent variables of the study and it is valid to perform the regression analysis. Consequently, from the previous tests, the regression analysis could be used to answer the different questions of the study and to test its hypotheses.

In order to test the hypotheses of the study, Multiple Regression Analysis was used. The main hypothesis states that "Administrative empowerment has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority," the dimensions of the independent variable are: Information Sharing, Independence & Freedom to Act, Reinforcement and Work Teams.

Table (12) shows which independent variables are entered or removed, and it is clear that all variables in the model are entered.

Table 12- Variables Entered/Removed

Model	Variables Entered	Variables Removed	Method
1	Work Teams, Independence & Freedom to Act, Reinforcement, Information Sharing	.	Enter
a. All requested variables entered.			
b. Dependent Variable: Continuous Improvement			

It is obvious from table (13) that the model consisted of all four dimensions of the independent variable, and this model has the ability to interpret 56.8% of the variance in the dependent variable which is highly significant as indicated by Table (13).

Table 13- Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.568[a]	.322	.309	.427682
a. Predictors: (Constant), Work Teams, Independence & Freedom to Act, Reinforcement, Information Sharing				

Table (14) which shows the ANOVA test, it clear that the model is of a good fit for the data since the F-value (24.852) according to the p-value (Sig.= .000) this indicates that the combination of the predictors significantly predicts "Continuous Improvement." So, the null hypothesis will be rejected, which means that the application of Administrative Empowerment by its dimensions (Information Sharing, Independence & Freedom to Act, Reinforcement and Work Teams) impacts in the Continuous Improvement.

Table 14- ANOVA

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	18.183	4	4.546	24.852	.000[a]
	Residual	38.229	209	.183		
	Total	56.411	213			
a. Predictors: (Constant), Work Teams, Independence & Freedom to Act, Reinforcement, Information Sharing						
b. Dependent Variable: Continuous Improvement						

One of the most important tables is the Coefficients table. It indicates the standardized beta coefficients, which are interpreted similarly to correlation coefficients or factor weights. The t value and the Sig opposite each independent variable indicates whether that variable is significantly contributing to the equation for predicting Continuous Improvement from the whole set of predictors. From table (16), it is obvious that all the elements entering in the regression equation of the model are significant since Sig. for elements are less than 0.05.

Table 15- Coefficients

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	1.530	.235		6.509	.000
	Information Sharing	.115	.045	.159	2.562	.011
	Independence & Freedom to Act	.185	.042	.265	4.449	.000
	Reinforcement	.072	.033	.129	2.167	.031
	Work Teams	.224	.041	.328	5.471	.000
a. Dependent Variable: Continuous Improvement						

Based on the results of multiple regression shown in Table 15, the first null hypothesis stating "Information Sharing has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority," is rejected and the alternative hypothesis is accepted stating "Information Sharing has a statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority."

The second null hypothesis stating "Independence and Freedom of Action has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority," is rejected and the alternative hypothesis is accepted stating, "Independence and Freedom of Action has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority."

The third null hypothesis stating "Reinforcement has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority," is rejected and the alternative hypothesis is accepted stating, "Reinforcement has a statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority."

The fourth null hypothesis stating "Work Teams has no statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority." is rejected

and the alternative hypothesis is accepted stating, "Work Teams have a statistically significant impact on implementing continuous improvement within Aqaba Special Economic Zone Authority."

5. Conclusions and Recommendations

5.1. Conclusions

From table 15, it was found that work teams have the most part among the dimensions of administrative empowerment in impacting continuous improvement using PDCA, as its coefficient (B) equals .224. In the second rank comes the dimension of Independence & Freedom to Act with coefficient (B) equals .185, followed by the dimension of Information Sharing with coefficient (B) equals .115. In the last rank, comes the dimension of Reinforcement with coefficient (B) equals.072.

5.2. Recommendations

In light of the results obtained, the study recommends the following:

1. There is a great awareness of the importance of empowerment and the application of continuous improvement, and this was demonstrated through their keenness to: delegate routine work, record important tasks, accomplish due work first, keep the work schedule and link it with similar work assigned to employees and try to complete and follow them as main lines tracked at all levels, during a day, a week, a month and a year, linking them to what is known as the percentage of achievement within one department.

2. Link performance to good planning and using the available tools of continuous process improvement (PDCA) through all shifts within one department and high-precision coordination between all departments.

3. Work to establish an administration incubating training and qualification of employees or to establish a so-called bank of practices through a newly created section within Aqaba Special Economic Zone Authority and departing the literal tradition of standards, specifications and international systems.

4. Previous work policies that worked well in the past should be abandoned, because they are inconsistent with modern programs for continuous improvement and the use of e-government as an important and supportive part of serving the public.

5. Reduce undue costs in the performance of employees, especially managers, to carry out their work and prevent the division of ERP projects into many small projects.

References

Aburuman, N.M. (2016). The impact of administrative empowerment on creativity improvement among the workers of Jordanian public administration institute. *International Journal of Business and Social Science, 7*(1), 182-190.

Al-bdareen, R. (2020). The Impact of the Administrative Empowerment on the Employees Performance Management Process. *International Journal of Asian Social Science, 10*(4), 193-206.

Ali, B.J., Bakar, R., & Omar, W.A.W. (2016). The Critical Success Factors of Accounting Information System (AIS) and it's Impact on Organisational Performance of Jordanian Commercial Banks. *International Journal of Economics, Commerce and Management, 4*(4), 658-677.

Ali, B.J., Hasan, H., & Oudat, M.S. (2021). Relationship Among Export, Import and Economic Growth: Using Co-Integration Analysis. *Psychology and Education Journal, 58*(1), 5126-5134.

Ali, B., & Omar, W. (2016). Relationship between E-Banking Service Quality and Customer Satisfaction in Commercial Banks in Jordan. *American Based Research Journal, 5*(12).

Al-Matari, D, Obaid. (2019). The relationship between administrative empowerment and organizational commitment of in the ministry of housing in Saudi Arabia. *IUG Journal of Economics and Business, 27*(01), 27 -54.

Al-Rahahleh, M.M.S. (2020). The Impact of Cognitive Empowerment on Human Resources Development at Jordan Phosphate Mines Company. *IOSR Journal of Business and Management, 22*(1), 41-51.

Hair, J.F. Jr., Bush, R.P., & Ortinau, D.J. (2006). *Marketing research: Within a changing information environment (3rd ed.).* New York: McGraw-Hill.

Hair, J.F., Tomas, G., Hult, M., Ringle, C.M., & Sarstedt, M. (2014). *A primer on partial least squares structural equation modeling (PLS-SEM).* Thousand Oaks, CA: Sage.

Hirzel, A.K., Leyer, M., & Moormann, J. (2017). The role of employee empowerment in the implementation of continuous improvement. *International Journal of Operations & Production Management.*

Jawabreh, O., Jahmani, A., Khaleefah, Q., Alshatnawi, E., & Abdelrazaqe, H. (2020). Customer Expectation in Five Star Hotels in Aqaba Special Economic Zone Authority (ASEZA). *International Journal of Innovation, Creativity and Change, 11*(4).

Mahmoud (2019). The role innovative leadership in administrative empowerment (Study analysis of the views of a sample of decision makers in the General Company for Food Industries. *Journal of Economics and Administrative Sciences, 25*(111), 122-13.

Newman, A., Neesham, C., Manville, G., & Tse, H.H. (2018). Examining the influence of servant and entrepreneurial leadership on the work outcomes of employees in social enterprises. *The International Journal of Human Resource Management, 29*(20), 2905-2926.

Oudat, M.S., & Ali, B.J. (2021). The Underlying Effect of Risk Management on Banks' Financial Performance: An Analytical Study on Commercial and Investment Banking in Bahrain. *Elementary Education Online, 20*(5), 404-414.

Robert, C., Probst, T.M., Martocchio, J.J., Drasgow, F., & Lawler, J.J. (2000). Empowerment and continuous improvement in the United States, Mexico, Poland, and India: Predicting fit on the basis of the dimensions of power distance and individualism. *Journal of applied psychology, 85*(5), 643.