



Effects of Applying ISO 9001/2015 Criteria on the Quality of Administrative Work: Field Study

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Abstract: The current research aims to identify the effects of applying (ISO 9001/2015) criteria on the administrative work quality in College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University. The researchers used the descriptive (analytical) approach. Research sample included employees of administrative units of College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University (n=104). Sample included (94) females and (10) males. Results indicated that: (1) There are statistically significant differences for the effect of ISO 9001/2015 on the quality of administrative work according to department and experience. (2) There are statistically significant differences among responses of participants concerning the quality of administrative work according to experience, gender and department. (3) Applying ISO 9001/2015 affected academic affairs department followed by administrative affairs department considering the type of department. (4) Clients' satisfaction improved leading to competitive advantages for the college compared with other colleges not acquiring ISO certificate.

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1. Introduction:

Quality of administrative services is the base for success of services provided by the university that affect the quality of output and outcomes. Administration is the main entrance for improving the quality of teaching. Therefore, success of services provided by faculties depends on the quality of administrative services provided, as man-power management is a key factor for activating Total Quality Management (TQM) (Darwish, Ramadan 2011: 11).

Requirements of ISO 9001/2015 represent the preliminary stage for applying (TQM) system as it is more inclusive than (ISO) (Musallam, Abdullah Hasan 2015: 158). (TQM) system concentrates on all technical and administrative processes while (ISO 9001/2015) concentrates only on technical and procedural aspects (Zain El-Din, Farid 1990: 5). Rules of (ISO) in all foundations gaining (ISO) certificate are similar while (TQM) axes differ from one foundation to another.

Foundations gaining (ISO) certificate initiate internal scrutiny by internal scrutiny team before undergoing external scrutiny and regular inspection by the (ISO) awarding body to verify that the foundation continues to apply quality standards according to which it gained the certificate (Musallam, Abdullah Hasan 2015: 189). These foundations are obliged to

make modifications according to modifications of standards of the International Organization for Specification and Measurement. On the other hand, there is no external scrutiny or regular inspection of for foundations applying (TQM) as each foundation has its own model.

Administrative work is a major branch for faculties in general. Most administrative tasks are performed by human effort of directors or employees in all administrative units of the faculty. Good reputation of the faculty on the university level increases sense of belonging among employees and make them proud of their work (Bu Anan, Nour El-Din 2007: 52).

Total Quality Management (TQM) considers the significance of human resources as the main factor initiating (ISO) criteria. Therefore, this research will be divided into five axes: 1) improving the employees' performance level, 2) using risk-taking thinking as a basis for identifying objectives and plans of administrative units, 3) roles, tasks and responsibilities, 4) monitoring the system performance and 5) improving client satisfaction. Through these axes, (ISO) criteria will be identified in addition to human resources path according to (ISO 9001/2015) criteria that led to changes in administrative plans towards continuous improvement of administrative

services quality in the faculties under investigation through cooperation among employees and administrators to provide high-quality administrative services with minimal cost and maximum speed to fulfill the needs of beneficiaries.

Research problem:

In the light of competitiveness among faculties, the major challenge for any educational system nowadays is delivering high-quality education. Administrative work is the entrance for improving educational quality (Darwish, Ramadan 2011: 11).

Success of any administrative foundation depends on the quality of administrative services provided by this foundation to achieve its objectives effectively and affect the quality level of its outcomes. This means that the educational foundation is responsible for improving educational services and providing it with a quality level. This can never be achieved unless Total Quality Management is followed to reach a high level of performance (Darwish, Ramadan 2011: 11).

According to review of literature including Al-Adadi, S. (2012), Darwish, R. (2011), Al-Tarabulsia, S. (2011), Al-Khateeb, A. & Al-Khateeb, R. (2010), Bu Zaian, R. (2010), Abu Ouda, F. & Abu Malwah, M. (2010), Merdasi, H. (2010), Lakrat, A. (2009), Al Murad, N. & Hassan, R. (2009), Bu Anan, N. (2007) and Badah, Ahmed (2007), the researchers tried to apply criteria of (ISO 9001/2015) and to study its effects on the quality of administrative work in College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University.

Research significance:

- As a quality management system, (ISO 9001) improves the administrative systems of College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University.
- Identifying reality of administrative work quality in College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University to identify weaknesses and strengths of the administrative system.
- (ISO 9001) is the start point for applying a Total Quality Management system (Musallam, Abdullah Hasan 2015: 158).
- The foundation having (ISO 9001) enjoys a strong administrative system through which it can apply (TQM) while concentrating on clients and involving employees in continuous improvement (Musallam, Abdullah Hasan 2015: 159-160).
- Increasing the interest of decision makers in spreading administrative quality culture and the importance of delegating responsibilities to decrease

administrative centralization (Darwish, Ramadan 2011: 12).

Aims:

The current research aims to identify the effects of applying (ISO 9001/2015) criteria on the administrative work quality in College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University, through the following aims:

1. Effects of applying (ISO) measures on improving administrative performance.
2. Effects of applying (ISO) measures on identifying objectives and plans of administrative units.
3. Effects of applying (ISO) measures on identifying roles, tasks and responsibilities.
4. Effects of applying (ISO) measures on monitoring the system performance.
5. Effects of applying (ISO) measures on improving client satisfaction level.

Hypotheses:

1. There are statistically significant differences among participants responses to the effects of applying (ISO 9001/2015) on the quality of administrative work according to the administrative unit variable.
2. There are statistically significant differences among participants responses to the effects of applying (ISO 9001/2015) on the quality of administrative work according to the gender variable.
3. There are statistically significant differences among participants responses to the effects of applying (ISO 9001/2015) on the quality of administrative work according to the experience variable.

Terminology:

- **ISO:** The initials refer to the Greek word "ISOS", meaning equal or similar. The term is approved by the International Organization for Standard Specifications (Abd Al-Aziz, Samir M. 1999: 147).
- **Quality:** A characteristic for goods or services that proves them able to fulfill client's needs (Al-Salamy, Ali 1995: 18).
- **ISO Efficiency:** Controlling administrative measures through teams of internal and external inspectors (procedural).
- **ISO Awarding Body:** The accredited organizations related to official bodies through standards and specifications systems (Musallam, Abdullah Hasan 2015: 183).

Methods:

Approach:

The researchers used the descriptive (analytical) approach.

Delimitations:

1. **Place:** College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University.

2. **Duration:** The research was performed from 1-10-2018 to 1-4-2019 as follows:

- Pilot study from 1-10-2018 to 1-11-2018.
- Main study from 1-12-2018 to 1-4-2019.

3. **Participants:** Research sample included employees of administrative units of College of Community and College of Applied Studies and Community Services - Imam Abdul Rahman bin Faisal University (n=104). Sample included (94) females and (10) males.

Measurements:

To achieve this research aims, the researchers designed a questionnaire including (21) items. Responses are scored on five-point Likert Scale

(strongly disagree – disagree – can't say – agree – strongly agree). The questionnaire included five axes: improving administrative performance (3 items) – use of risk-taking thinking in identifying objectives and plans for administrative units (6 items) – roles, tasks and responsibilities of administrators (5 items) – monitoring system performance (3 items) – improving clients' satisfaction (4 items). The researchers used SPSS software to treat responses statistically.

Descriptive Statistics of Demographic Data:

Demographic data included three variables (gender – department – experience). Table (1) shows distribution of participants according to these three variables.

Table (2) indicated that (24) participants (23.1%) had low experience and (20) of them (19.2%) were females while (4) were males).

Table (1): Distribution of participants according to demographic variables (gender – department – experience) (n=104)

Experience				Department			Total
				Academic Affairs	Administrative Affairs	Community Affairs	
Low	Gender	Male	Count	1	2	1	4
		Female	Count	7	13	0	20
Moderate	Gender	Male	Count	0	5	0	5
		Female	Count	8	23	0	31
High	Gender	Male	Count	9	14	0	23
Very high	Gender	Female	Count	1	0	0	1
		Male	Count	6	11	3	20
Total	Gender	Female	Count	2	7	1	10
		Male	Count	30	61	3	94
	Total	Count	32	68	4	104	

Table (2): Percentages of participants according to demographic variables (gender – department – experience) (n=104)

Experience				Department			Total
				Academic Affairs	Administrative Affairs	Community Affairs	
Low	Gender	Male	Gender within %	25.0%	50.0%	25.0%	100.0%
		Female	Gender within %	35.0%	65.0%	0.0%	100.0%
Moderate	Gender	Male	Gender within %	0.0%	100.0%	0.0%	100.0%
		Female	Gender within %	25.8%	74.2%	0.0%	100.0%
High	Gender	Male	Gender within %	39.1%	60.9%	0.0%	100.0%
Very high	Gender	Female	Gender within %	100.0%	0.0%	0.0%	100.0%
		Male	Gender within %	30.0%	55.0%	15.0%	100.0%
Total	Gender	Female	Gender within %	20.0%	70.0%	10.0%	100.0%
		Male	Gender within %	31.9%	64.9%	3.2%	100.0%
	Total	Gender within %	30.8%	65.4%	3.8%	100.0%	

Pilot Study:

Pilot study was performed from 1-10-2018 to 1-11-2018 to:

a) Designing the questionnaire: the researchers reviewed (ISO 9001/2015) and related literature and then designed the questionnaire that included (21) items divided on five axes: improving administrative

performance (3 items) – use of risk-taking thinking in identifying objectives and plans for administrative units (6 items) – roles, tasks and responsibilities of administrators (5 items) – monitoring system performance (3 items) – improving clients' satisfaction (4 items). The researchers then calculated validity of the questionnaire according to experts' opinions and

applied required modifications. Cronbach's Alpha (0.7) indicated that the questionnaire is reliable.

b) To validate the questionnaire, the researchers used Cronbach's Alpha for reliability as seen in table (3):

Table (3): Cronbach's Alpha for the questionnaire's axes

Elements	Cronbach's Alpha	N of Items	The highest Cronbach's Alpha if Item Deleted
Axes	Improving administrative performance	.809	3 .792
	Use of risk-taking thinking in identifying objectives and plans for administrative units	.867	6 .862
	Roles, tasks and responsibilities of administrators	.842	5 .824
	Monitoring system performance	.766	3 .712
	Improving clients' satisfaction	.828	4 .758
Total	.904	21	.902

Table (3) indicated that Cronbach's Alpha for the whole questionnaire (total) was (0.904). this factor didn't decrease below (0.7) for any of the axes. This high value indicates that the questionnaire is reliable. Table (3) also showed the highest Cronbach's Alpha value in case of deleting items. This value was (0.902)

for total score indicating that the questionnaire will not be affected in case of deleting any of its items.

Factorial Validity:

To verify validity of the questionnaire, factor analysis was used to verify the link between each item and its axes as seen in table (4).

Table (4): Factor Analysis Component Matrix

Axis	Item	Component
Improving administrative performance	I was trained by Quality Unit on administrative procedures of ISO	.702
	Identifying performance indicators for all processes contributes in monitoring and evaluation of processes and helps suitable decision making	.897
	Identifying performance indicators effectively helped providing resources and needs	.817
Use of risk-taking thinking in identifying objectives and plans for administrative units	ISO helps employees to be involved in identifying objectives of each administrative unit	.756
	ISO helps each administrative unit to design a schedule according to objectives	.706
	Achieving objectives of my job is easier with ISO	.767
	Employees of each administrative unit can identify possible risks for each procedure	.724
	Identifying required actions in case risks reach (4)	.702
	Few problems appear during executing procedures	.725
Roles, tasks and responsibilities of administrators	Identifying the person responsible for each procedure	.773
	identifying the person responsible for actions in case of risks	.723
	Authenticated measure helped explaining tasks for new recruits easily	.832
	Different department cooperate to initiate ISO measures	.797
Monitoring system performance	After ISO, time and effort required for jobs are available	.766
	Person in charge of accreditation and scrutiny activates accreditation and scrutiny measures	.824
	Internal scrutiny is initiated by ISO team for all administrative units to verify they are free of mismatches	.752
	Scrutiny and accreditation of external team helped controlling administrative procedures after applying ISO	.753
Improving clients' satisfaction	Writing and documenting procedures decreased errors	.781
	Acquiring information is quicker and easier as well-known parties are identified to provide information	.832
	After applying ISO, procedures applied in all units are free of complications	.786
	Communications are available and effective after applying ISO	.764

Table (4) indicated that correlation values for all items and their axes are above (0.7). this proves factorial validity for all items and the effectiveness of each item to measure what it is meant for.

Internal Consistency:

This measurement proves the research too valid to measure what it is meant to. It measures correlation between each item and its axis through Pearson's correlation coefficient as seen in table (5):

Main study:

The researchers reviewed (ISO 9001/2015) and related literature and then gathered data through

applying the questionnaire that included (21) items divided on five axes: improving administrative performance (3 items) – use of risk-taking thinking in identifying objectives and plans for administrative units (6 items) – roles, tasks and responsibilities of administrators (5 items) – monitoring system performance (3 items) – improving clients' satisfaction (4 items). The researchers proved the validity of the questionnaire according to experts' opinions and applied required modifications. Cronbach's Alpha (0.7) indicated that the questionnaire is reliable.

Table (5): Pearson's correlation coefficient for each item and its axis

Axis	Item
Improving administrative performance	I was trained by Quality Unit on administrative procedures of ISO
	Identifying performance indicators for all processes contributes in monitoring and evaluation of processes and helps suitable decision making
	Identifying performance indicators effectively helped providing resources and needs
Use of risk-taking thinking in identifying objectives and plans for administrative units	ISO helps employees to be involved in identifying objectives of each administrative unit
	ISO helps each administrative unit to design a schedule according to objectives
	Achieving objectives of my job is easier with ISO
	Employees of each administrative unit can identify possible risks for each procedure
	Identifying required actions in case risks reach (4)
	Few problems appear during executing procedures
Roles, tasks and responsibilities of administrators	Identifying the person responsible for each procedure
	identifying the person responsible for actions in case of risks
	Authenticated measure helped explaining tasks for new recruits easily
	Different department cooperate to initiate ISO measures
	After ISO, time and effort required for jobs are available
Monitoring system performance	Person in charge of accreditation and scrutiny activates accreditation and scrutiny measures
	Internal scrutiny is initiated by ISO team for all administrative units to verify they are free of mismatches
	Scrutiny and accreditation of external team helped controlling administrative procedures after applying ISO
Improving clients' satisfaction	Writing and documenting procedures decreased errors
	Acquiring information is quicker and easier as well-known parties are identified to provide information
	After applying ISO, procedures applied in all units are free of complications
	Communications are available and effective after applying ISO

Statistical Treatment:

The researchers used SPSS Software to calculate the following: Mean – SD – Variance – Relative Importance – One Way ANOVA – (t) test.

Results and Discussion:

First Axis: Improving Administrative Performance:

The first axis reflects the effectiveness of applying ISO criteria on improving the administrative performance. To measure the effect of this variable, the researchers tested a hypothesis stating "There is no

effect for applying ISO 9001/2015 on improving the administrative performance level". Table (6) shows trends of responses.

Table (6): Trends of Responses to Items of the First Axis (n=104)

First Axis	Mean	SD	Direction
I was trained by Quality Unit on administrative procedures of ISO	3.88	1.295	Agree
Identifying performance indicators for all processes contributes in monitoring and evaluation of processes and helps suitable decision making	3.21	.972	Neutral
Identifying performance indicators effectively helped providing resources and needs	3.52	1.033	Agree
Improving administrative performance	3.54	.881	Agree

Table (6) showed that means of responses of participants are all above (0.7). training employees on administrative procedures of ISO is consistent with items (7/2, 7/3) of ISO specifications. Indicators of performance evaluation increase and affect availability of resources and needs. Relative importance of the effect of monitoring and evaluation over decision making decreases and this is consistent with items (9/1/1, 9/1/3). In general, applying ISO 9001/2015 improved the administrative performance. This proves the previous hypothesis wrong and leads us to adopt an alternative hypothesis stating "There is a significant effect for applying ISO 9001/2015 on improving the

administrative performance level". This is consistent with Al-Khateeb, A. & Al-Khateeb, R. (2010).

Second Axis: Use of Risk-Taking Thinking in Identifying Objectives and Plans for Administrative Units:

This axis measures the effectiveness of applying ISO 9001/2015 on using risk-taking thinking in identifying objectives and plans for administrative units. To measure the effect of this variable, the researchers tested a hypothesis stating "There is no effect for using risk-taking thinking, when applying ISO 9001/2015, on identifying objectives and plans for administrative units".

Table (7): Trends of Responses to Items of the Second Axis (n=104)

Second Axis	Mean	SD	Direction
ISO helps employees to be involved in identifying objectives of each administrative unit	3.69	.871	Agree
ISO helps each administrative unit to design a schedule according to objectives	3.81	.871	Agree
Achieving objectives of my job is easier with ISO	3.48	.847	Agree
Employees of each administrative unit can identify possible risks for each procedure	3.58	.706	Agree
Identifying required actions in case risks reach (4)	3.42	.844	Agree
Few problems appear during executing procedures	3.70	.869	Agree
Use of risk-taking thinking in identifying objectives and plans for administrative units	3.61	.569	Agree

Table (7) indicated that relative importance of involving employees in identifying objectives of administrative units and establishing schedules for these objectives increased significantly. Respondents' agreement on applying ISO 9001/2015 led to using risk-taking thinking when identifying objectives and plans in addition to actions required for facing possible risks. Furthermore, problems decreased. Relative importance decreases a little for identifying the degree of possible risks among employees. Difference coefficient indicates homogeneity of responses for this axis. Respondent's agreement on applying ISO 9001/2015 led to using risk-taking thinking when identifying objectives and plans for administrative units and devising a risk-facing plan if risks reached (4). This is consistent with item (6) of

ISO 9001/2015. This led the researchers to reject the previous hypothesis and adopt a new one stating "There is a significant effect for using risk-taking thinking, when applying ISO 9001/2015, on identifying objectives and plans for administrative units".

Third Axis: Roles, Tasks and Responsibilities of Administrators.

This axis measures the effectiveness of applying ISO 9001/2015 on identifying roles, tasks and responsibilities of administrators. To measure the effect of this variable, the researchers tested a hypothesis stating "There is no effect applying ISO 9001/2015, on identifying roles, tasks and responsibilities of administrators"

Table (8): Trends of Responses to Items of the Third Axis (n=104)

Third Axis	Mean	SD	Direction
Identifying the person responsible for each procedure	4.06	.810	Agree
Identifying the person responsible for actions in case of risks	3.77	.740	Agree
Authenticated measure helped explaining tasks for new recruits easily	4.11	.749	Agree
Different department cooperate to initiate ISO measures	3.64	.923	Agree
After ISO, time and effort required for jobs are available	3.56	1.013	Agree
roles, tasks and responsibilities of administrators	3.83	.599	Agree

Relative importance of authentic and documented measures for explaining required tasks for new recruits are low while providing required time and effort for administrative tasks are slightly high. Also, relative importance for identifying the person responsible for taking measures against risks are low. Difference coefficient indicates homogeneity of responses for this axis. Respondent's agreement on applying ISO 9001/2015 led to accurate identification of roles, tasks and responsibilities. This is consistent with Darwish (2011) in increasing decentralization. This led the researchers to reject the previous

hypothesis and to adopt a new one stating " There is a significant effect applying ISO 9001/2015, on identifying roles, tasks and responsibilities of administrators".

Fourth Axis: Monitoring System Performance

The fourth axis reflects the effectiveness of applying ISO 9001/2015 on monitoring system performance. To measure this variable, the researchers tested a hypothesis stating " There is no effect applying ISO 9001/2015, on monitoring system performance".

Table (9): Trends of Responses to Items of the Fourth Axis (n=104)

Fourth Axis	Mean	SD	Direction
Person in charge of accreditation and scrutiny activates accreditation and scrutiny measures	3.90	.782	Agree
Internal scrutiny is initiated by ISO team for all administrative units to verify they are free of mismatches	3.99	.865	Agree
Scrutiny and accreditation of external team helped controlling administrative procedures after applying ISO	4.04	.902	Agree
Monitoring system performance	3.98	.659	Agree

Relative importance slightly increases for contribution of scrutiny and accreditation in controlling administrative procedures and assuring it is free of mismatches. Relative importance decreases for activating scrutiny and accreditation measures by the person responsible for them. Difference coefficient indicates homogeneity of responses for this axis. Respondent's agreement on applying ISO 9001/2015 led to activating scrutiny and accreditation system. This led the researchers to reject the previous

hypothesis and adopt a new one stating "" There is a significant effect applying ISO 9001/2015, on monitoring system performance".

Fifth Axis: Improving Clients' Satisfaction .

This axis reflects the effectiveness of applying ISO 9001/2015 on improving clients' satisfaction. To measure the effect of this variable, researchers tested a hypothesis stating " There is no effect applying ISO 9001/2015, on improving client's satisfaction".

Table (10): Trends of Responses to Items of the Fifth Axis (n=104)

Fifth Axis	Mean	SD	Direction
Writing and documenting procedures decreased errors	4.14	.886	Agree
Acquiring information is quicker and easier as well-known parties are identified to provide information	4.01	.876	Agree
After applying ISO, procedures applied in all units are free of complications	3.81	.871	Agree
Communications are available and effective after applying ISO	3.68	.839	Agree
Improving clients' satisfaction	3.91	.644	Agree

Relative importance slightly increases for writing and documenting administrative processes that led to decreasing errors and increasing speed and accuracy of gaining information in addition to decreasing of complications while matching. Relative importance decreases for availability and effectiveness of communications. Difference coefficient indicates homogeneity of responses for this axis. Respondent's agreement on applying ISO 9001/2015 led to improving client's satisfaction. This led the researchers to reject the previous hypothesis and adopt a new one stating " There is a significant effect applying ISO 9001/2015, on improving client's satisfaction"

Conclusions:

- There are statistically significant differences for the effect of ISO 9001/2015 on the quality of administrative work according to department and experience.
- There are statistically significant differences among responses of participants concerning the quality of administrative work according to experience, gender and department.
- Applying ISO 9001/2015 affected academic affairs department followed by administrative affairs department considering the type of department.
- Clients' satisfaction improved leading to competitive advantages for the college compared with other colleges not acquiring ISO certificate.

Recommendations:

- The University should spread quality culture
- Employees should be trained on ISO requirements
- Applying ISO for all colleges
- Fostering decentralization

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