

INVESTIGATION THE BENEFIT FROM IMPLEMENTATION THE ISO 9001 ON OIL AND GAS COMPANIES IN QATAR

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Abstract

ISO (International Organization for Standardization) has been established in 1946 and it is the biggest developer and publisher of International Standards. The ISO introduced the ISO9000 in 1987 as a group of standard as try to show evidence of quality across of companies and organization in all countries. The purpose of this paper is to find out the benefits of implementation ISO 9001 certification in oil and gas companies in the state of Qatar increased rapidly since 1994. More than 100 oil and gas companies have been ISO 9001 certified. So, it is necessary to study and analyze the benefits of that certification. Survey study has been done by distributing a questionnaire by e-mail or handling it personally to most of the certified oil and gas companies in Qatar. ISO 9001 certification found got many benefits for oil and gas companies especially better documentation procedures, better corporate image and improvement in the product and services quality of the company.

Key words: ISO9001 certification benefits, oil and gas ISO certification in Qatar

1. INTRODUCTION

Nowadays, while ISO 9000 certifications have grown rapidly in recent years, from 343 to 643 certificates in 150 countries at the start of 2000, ISO 9000 has been used more and more throughout Europe, the USA, and worldwide. It has become a subject of focus even in many developing countries [25] including State of Qatar, so it is very important to evaluate the results of ISO 9000 certifications in Qatar as part of that grown. In 1987, it was the first introduction of ISO 9000 series as a set of quality standards. it has become a world-wide quality management norm for organization, regardless of their sizes and products [39], Since that time the number of ISO 9001 registered companies has substantially increased in Qatar as well as in other countries.

This paper provide the benefits of implementation ISO 9001 on oil and gas companies in state of Qatar by using collection data survey.

Qatar is one of the top world's leading gas and oil export and it is a member body in ISO (A member body of ISO is the national body "most

representative of standardization in its country". Only one such body for each country is accepted for membership of ISO. Member bodies are entitled to participate and exercise full voting rights on any technical committee and policy committee of ISO) [16].

In 2006, ISO certified companies in the state of Qatar are 97 companies. 29.8% of them are oil/gas and petrochemical industry [2]. In Qatar the ISO 9001 registration is growing and since ending of nineteen more than 100 oil and gas organizations have been registered to ISO 9000 certification till now, in addition, the main sub government company QP – Qatar Petroleum- is the one of first company that got ISO 9001 certification in 2009 by The British Standards Institution (BSI) certified body which is accredited by United Kingdom Accreditation Service (UKAS) is the sole national accreditation body recognized by government to assess, against internationally agreed standards, organizations that provide certification, testing, inspection and calibration services[38]. Qatar Petroleum Company is encouraging local company certified their systems as per ISO 9001 standard. Certification means audited compliance to a specific part of the ISO 9000 standard. The ISO 9000 series was created to provide a structure to ensure that the principles of quality management are identified and enforced [11]. In this paper, when use ‘certified company’ that mean: the company obtained certificate of registration of ISO 9001.

2. LITERATURE REVIEW

In 1994 Buttle [12] carried out a useful study concerning the benefits of ISO 9000 on UK business by questionnaires mailed to 4250 organization certificated to ISO 9000. The most important benefit sought from ISO 9000 certification are profit improvement, process improvements and marketing benefits included gaining new customers, keeping existing customers and increasing market share. In Spain, Caro and Garcia (2009) studies from data collection of surveyed around 200 ISO 9001 certified companies and none certified in Spain. They reported that ISO certification positively affected on ISO 9001 certified companies by better customers’ perceptions in quality of services or products, good rate of customer satisfaction and good company’s image [22]. In Saudi Arabia, Magd et al in 2003 [25], tested and evaluated 97 certified manufacturing companies and found an increasing the rate of awareness and improvement in quality system efficiency and an improvement in customer services as a most important benefits gained from ISO 9000 adoption. In other study of Magd in 2006 [23] based on a survey of 175

companies found that the top three benefits in achieved from certification of ISO 9001 are better efficiency of the quality system, improved documentation procedures and quality awareness in the firms is higher than before. In United Arab Emirates, W. Zaramdini, () was conducted studies of 900 ISO 9001 certified companies in United Arab Emirates by surveyed them in 2004 . It was study that carried out analysis the benefits of ISO 9001: 2000 certification companies in the UAE. After data collected a number of benefits were statistically analyzed and found out the connection between all types of benefits after that all of findings have been discussed. The result of the study found that ISO 9001 certified companies have more chance for improving by inside company factors like improving processes or products than by outside company factors like pressure from customers or imitation of competitors. Furthermore, the certification steps had generated more internal benefits than external ones. In 2004, when the study was conducted, the number of ISO9001 certified organization listed in Dubai or in Abu Dhabi Stock Exchanges was still few. This increased the analysis of the certification's financial benefits [40]. In Oman, Rafi Ashrafi () was carried out study to evaluate. The analysis of the information shows that certified organizations in Oman have performed well in their registration process and have benefited from ISO 9000 Quality Management System's implementation. Main results of the study are reported with implications to companies, limitations of the study and future directions [32]. Only one research was carried out in the state of Qatar by Al khalifa and other which was the main purpose of his study is to assess the experience of different organization in the state of Qatar upon adopting the ISO 9000:2000 quality management standard [2]. Turki and Faris found a positive impact in Malaysian companies that have ISO 9001 certification to gain customer confidence in their products. Also they found the benefits on Saudi Arabia companies in improving customer focus and quality system[1], also Magd et al (2003) found the most important positive impact in Saudi firms are increase in quality awareness, improvement in quality system efficiency and improvement in customer services[25]. Heras et al (2001) showed by an empirical study in Spain that the certified companies have a greater average economic profitability than the non-certified companies [14] also the same positive impact that found by Simmons and Whit (1999) that average ISO 9000 registered more profitable than the non-ISO 9000 companies [33]. Chris et al (2007) from North America an event study, found the time-based efficiency started to improve right after the implementation of the ISO 9000; also they found a better performance for ISO 9000 certified companies after they obtained certification [9]. Bozena was resulted that the benefits achieved from ISO 9000 are not the same for every organization depend

of many factors also divided the benefits into internal and external benefits. Achievements of most of internal benefits come from commitments of all level of company organization. A few of them come from following standards itself [31]. Buttle study in UK concluded the benefits in profitability and process improvement more than marketing benefits [12]. By the survey of Jabnoun (2003) found that most positive expectations by the survey are the ISO 9000 certification is worth the investments, high beneficial, improve the image and improve the employee performance [19]. A little bit same of most positive impact of ISO 9000 certification in Saudi Arabia organizations by Magd (2006) are improving quality system efficiency, a better documentation procedures and increasing quality awareness in the Saudi Arabia firms [23]. Many studies in this field was found a negative impact or a positive weak effect from the ISO 9001 certification, Abraham et al. (2000) found that no guarantee of ISO 9000 certification on supplier products or services quality that meet customer requirements [29]. The same finding of Jabnoun (2003) found a negative expectation from ISO certification in UAE that ISO 9000 certification is only effective in documentation but not in practice [19]. Terziovski et al (1997) locate that certification of ISO 9001 does not have a clear positive relationship with organizational performance in the TQM environment [36]. A survey in Australia and New Zealand based on manufacture and services company has been done by Mei et al (2006) and after analysis found a positive weak effect on business performance also they concluded that ISO 9000 itself does not lead to improvement in business performance [28]. Hesan et al (2002) found that ISO 9000 registration in Singapore does not have any impact on quality management practices and quality results of Singapore firms [15]. Zeng et al in 2004 found from 100 certified companies' survey answers that 50% respondents opined that ISO 9000 certification has no obvious effect on quality improvement [41]. Darja and Brede (2006) were concluded in their study that even though a company might be certified in accordance with ISO standard; it doesn't prove successful implementation and usage of the company's quality system. You really need to look inside a company to find out what is happening [10]. In other hand, Casadesus and Karapetrovic brief the negative view that costs are greater than the benefits derived by ISO 9001 certificates [8] because of Withers and Ebrahimpour (2001) found that the cost of certification can be very high varying from \$10,000 to \$250,000 [1]. And the cost focuses on three issues (by Stevenson and Barnes 2002) are: Internal costs (training, hiring a new employees...etc), Consultancy fees, and Registrations agencies' fees for auditing activities [34]. Kumar and Balakrishnan found a few of negative impact in many areas of 100 contractors from UAE responders,

more than half of it, found the same level of customer satisfaction before and after ISO certified, documents volume was increased after ISO certified, also they did not agree that subcontractor's development increased since certification[21].

3. CERTIFIED ISO OIL AND GAS COMPANIES IN QATAR

In Qatar, only five certification bodies (BV, Velosi, TUV, DNV and BSI) that can grant ISO 9001 certificate for all type of organizations. Researchers have tried to get numbers of certified oil and gas companies in Qatar, but unfortunately had not found any official organization that could provide information on certified companies in Qatar. The only way to collect details of only oil and gas certified companies in Qatar, was to contact all certifying bodies in Qatar to get the numbers of certified oil and gas companies. Table (1) shows the certified company in Qatar as per ISO 9001 from 2000 till 2010.

Table 1. Number of ISO 9001 certified companies in last ten years.

Year	No of ISO 9001 Certified company (all type of co. in Qatar)*	No of ISO 9001 Certified company (only oil and gas co. in Qatar)**
2000	55	10
2001	52	10
2002	45	11
2003	17	13
2004	94	15
2005	97	18
2006	101	26
2007	177	26
2008	182	37
2009	185	15
2010	264	30

Sources: * The ISO survey of Certification 2010.
 ** Qatar certification bodies (BV, Velosi, TUV, DNV and BSI)

The table above shows the increasing number of certified companies in Qatar, the first Column gives numbers of all types of companies in Qatar that have been got from a statistical study from the International

Organization for Standardization (Geneva, Switzerland), and the other column gives only certified oil and gas companies in Qatar which have been collected from certifying bodies in Qatar, both columns started from 2000 till 2010. It is very important to note that all companies may be not reflect the actual total of certified companies in Qatar. That because validity of ISO 9001 certificate is three years, so certifying body issue a new certificate each three years, that mean add a new certified company for table above which is add before three years. Referring table in the previous page note that since 2000 till 2010, numbers of oil and gas ISO 9001 certified companies increased and the percentage of certified oil and gas companies is 13.6% of all types of certified companies, ISO 9001 is used more and more throughout Europe, USA and worldwide [24] including state of Qatar. Figure (1) below shows the number of ISO 9001 certified companies comparing with oil and gas certified companies.

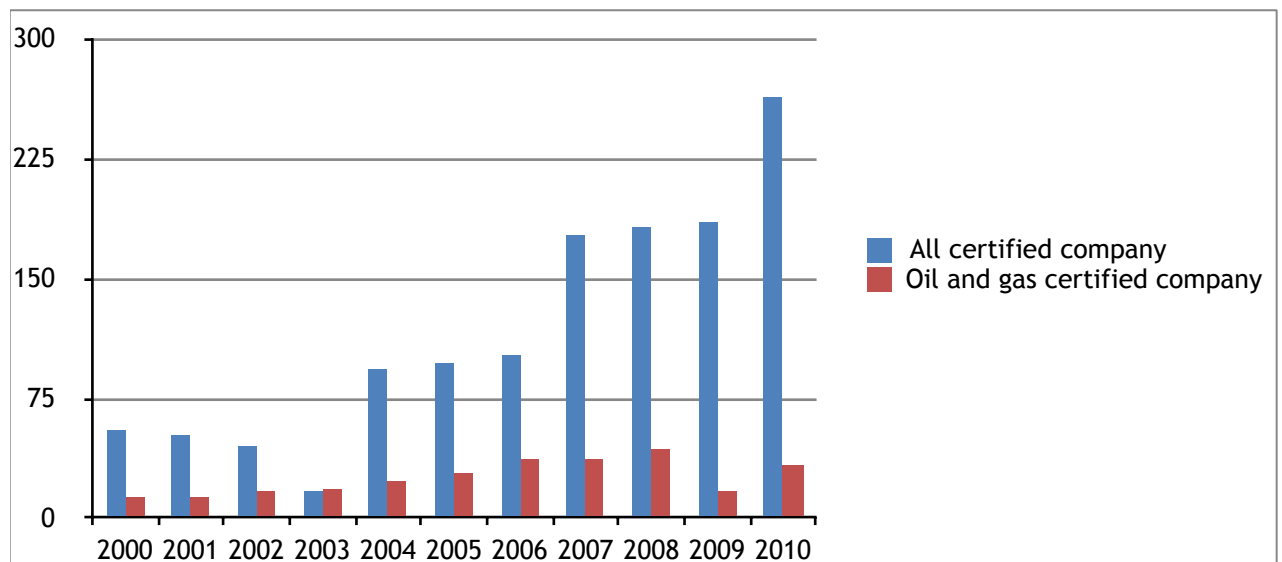


Figure 1. Number of ISO 9001 certified companies in Qatar[24]

4. METHODOLOGY AND DATA COLLECTION OF STUDY

The data was collected utilizing survey questionnaire. The questionnaire was mailed or handed it in personally to all certified oil and gas companies in Qatar. The survey has been designed using previous studies. Numbers of surveys have been used in GCC as well as using face to face interviews with quality managers and professionals in Qatar who are working in quality management system fields and ISO certifying bodies. Based on their responses, previous studies and objectives of this study, a pilot survey was developed and sent to a few of quality departments

managers and certification professional’s people to make sure that survey covers the goals of this study. Their feedback and suggestions was taken to improve the design of survey. Final survey was developed and distributed to oil and gas certified companies in Qatar .To find a suitable collection of respondents to complete the survey, the survey addressed to the manager or person responsible for quality in the organization such as quality manager, quality management representative (QMR) and QA/QC manager. This survey consists four parts:

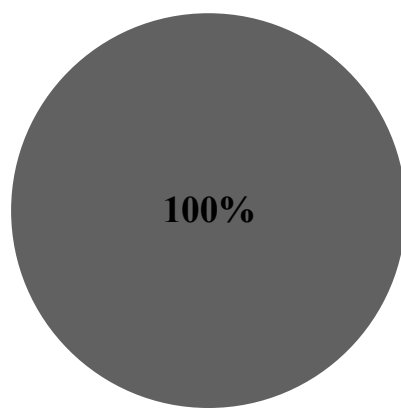
4.1 Research Findings and Results

Each of company that certified by ISO 9001, has its own reasons for getting the ISO 9001 certificate. In the survey, three reasons has been determined for the certified companies surveyed and give a chance for the companies to select one or more than one reasons and specify any other reasons if they have any. Table (2) shows the selected reasons from the surveyed companies.

Table (2). Companies’ reasons for ISO 9001 certification implementation.

	Frequency	Percent of sample
Required by Client/Customer	15	24%
Improvement Organization System/Performance	33	53%
Image Purposes	14	23%
Total	62	100%

Improvement of organization system and performance is the most important reason of certified companies for implementation ISO 9001 certification. The other reasons (i.e. required by client or customers and image purposes) come in equal importance. Figure (2) shows the percentage of each reason.



**Figure (2) Percentage of each company's reasons
for ISO 9001 certification implementation.**

The above mentioned reasons are supported by literature review of Caro and Garcia studies (2009) in Spain, that all three variables (quality, satisfaction, and corporate image) as main reasons for ISO 9001 implementation.

The third most important impact is improved the quality of product or services. This benefit comes in forth order in two of previous studies (Al-Khalifa et al, 2008 and Hesham majd et al, 2003). The last fourth benefits in table (3) comes with Mean more than 3, that's mean as per survey scale 3 =about the same, this findings supported with the study was carried out in Saudi Arabia by Majd in 2006.

Table (3). Impact of ISO implementation on oil and gas companies

No	Benefits	Mean*	Std. Deviation
1	Better documentation procedures	4.38	.493
2	Better corporate image	4.29	.462
3	Improved product/services quality	4.21	.410
4	Overall tangible impact	4.12	.327
5	Improved the process quality	4.06	.547
6	Reduced customer complaint	3.68	.638
7	Increased Market Share	3.62	.551
8	Reduced defective rates and wastes	3.53	.662
9	Improved staff motivation	3.44	.960
Note: * The mean score was based on surveyed companies level of agreement on the importance level on a scale of 5=more than expected, 4=expected, 3=about the same, 2=less than expected, 1=not expected.			

In figure 3, researchers summaries all benefits which are found from the survey. Based on diagram below, it is clear that the most of the benefits were found between scale 3.5 to 4.5 that means that benefits are more than “about the same” and under “more than expected” as per surveys’ classification, so the majority of that benefits are expected for the surveyed companies but it is not more than expected in general case.

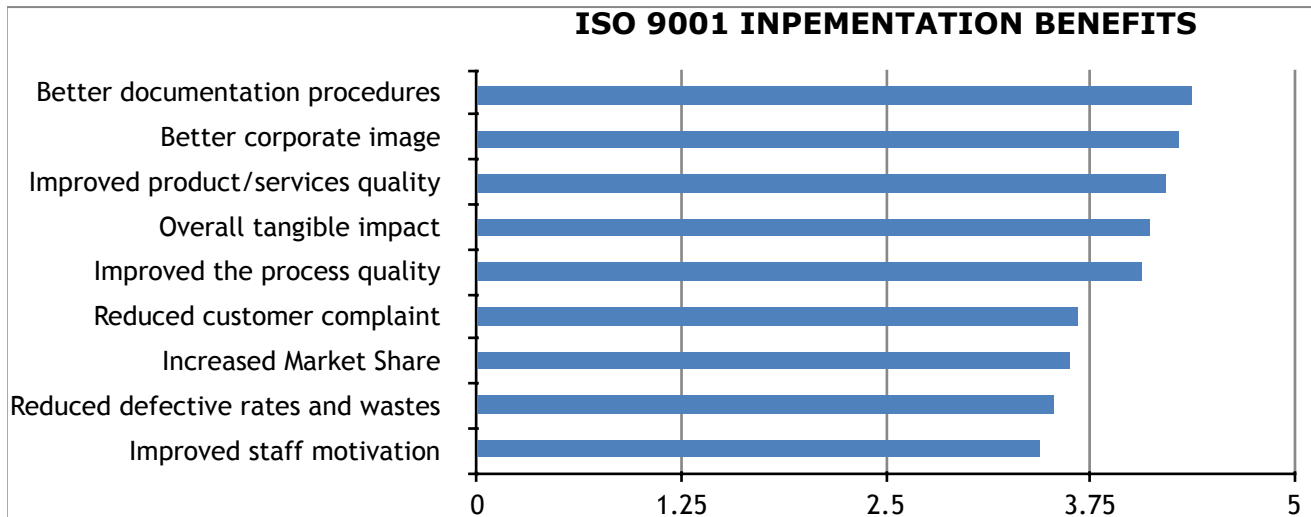


Figure (3). Impact of ISO implementation on oil and gas companies

5. CONCLUSION

Since 1994, the time of starting ISO 9001 certification companies in Qatar, the number of certified oil and gas companies are increasing significantly. The impact of ISO 9001 certification implementation on oil and gas companies in Qatar – which has been tested in this research–differs among these companies and depends on several conditions, such as the size and type of companies, company’s experiences with quality, and the purpose from adopting the ISO 9001 certification. The most companies have adopted ISO 9001 certification for improving their organization system and performance, they have got many positive benefits, but other companies have adopted for image purposes which has resulted in no tangible impact or real benefits. When the purpose is “required by client or customer” obviously, the focus will be on clients’ requirements only, so the overall benefit will be less.

As a result from survey, the main positive impact of ISO 9001 certification on organization performance is the better documentation procedures which are required in first ISO 9001 clauses (ISO clause Number 4.2.3, control of documents). Better corporate image is the second impact which is the main reason that of 23% of oil and gas surveyed companies for getting the ISO 9001 certificate. Improved product/services quality came as third impact which should come first as an objective of ISO standard i.e. based on a process-based QMS in standard ISO 9001 shows the input process of product realization and the output to the customer satisfaction. The other impacts: Overall tangible impact, improved process quality, reduced customer complaint, increased market share and reduced defective rates and wastes are matching with

other studies as explained in (4.1). The last impact from the survey result is "Improved staff motivation", this point is not covered by ISO 9001 as well as the eight quality management principles as per ISO 9000:2005.

Researcher has found that this research has discrepancies with other researches that were conducted in USA, Canada, Australia, China and other European countries due to the differences in business culture, job environment, roles of labors and the system of company operations. But this research is matching – in most of it- with research that was conducted in Saudi Arabia, UAE and other Arab countries.

The main benefit of this research is focusing on certain area in Qatar and logically in GCC area because of similarity of business culture and focusing on oil and gas field that because it is the main resource of income in Qatar and GCC.

6. RECOMMENDATIONS

The differences of ISO 9001 certification benefits from developed and developing countries, is giving indication that adoption of any quality approach that imported from overseas or developed countries is not necessarily succeed in our countries that because of contrast in culture, environment and the roles, It is recommended that quality approach to be developed to be suitable with our business culture and our privacy and identity.

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