

The Role of ISO 9001:2000 Certification in Kenya's Sugar Industry

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Abstract

This paper establishes the role of ISO 9001:2000 certification in Kenya's sugar industry and arises out of a research conducted in Mumias Sugar Company Limited between October, 2008 and January, 2009. The ever quickening pace of technological evolution is now more than ever affecting the way standards are proposed, developed and implemented in Kenya's sugar industry. Kaizen philosophy of continuous improvement was used as a theoretical framework. A sample of 181 out of 1646 was used; questionnaires, interviews and documentary reviews were used as data collection methods. Data analysis was through descriptive (mean, percentages and frequencies) statistics and inferential (chi-square) statistic. A strong relationship was found between production and ISO 9001:2000 certification after the company was ISO 9001:2000 certified. This study is significant because the management in Mumias Sugar Company and other organizations may use the research findings to enable them strategize to competitively position the company in the market.

Keywords: ISO 9001:2000, Quality Management System, Kaizen, Continuous Improvement, Productivity

INTRODUCTION

The introduction and implementation of a new quality system brings about profound changes in companies (Carlsson and Carlsson, 1996). Although, organizations in the industrialized countries have progressed well in the application of quality systems, organizations in the developing countries have been latecomers. Researchers widely agree that the most well-known and applied standard for quality systems is the ISO 9000 series (Gustafsson, Klefsjo, Berggen and Wellemets, 2001). ISO 9000's comprise a series of international standards published by the International Organization for Standardization. The first version appeared in 1987 and outlined the requirements for quality management systems in manufacturing and service organizations (Erel and Ghosh, 1997). The earlier version was the ISO9001: 2001 however the ISO9001:2008 was introduced from 1st November 2008. ISO 9000 certification has been applied widely around the world and in all sectors of the industry to raise quality standards (Escensiano, Fernandez, and Vazquez, 2001). Nowadays for a company, receiving ISO 9000 certification is not only a fashion or trend, but also a general requirement for running a good business (Yann, 1998).

The certification is viewed very often as a tool for staying competitive in the domestic and

international markets, and not as a means of adding value to the organizational processes and improving quality and performance. Certification provides confidence to buyers of a company's products or services that it has at least a fundamental quality system in place (Erel and Gosh, 1997).

Changes in the environment have led to dynamism which has led to constant appraisal with new technologies hence the need for standardization of goods and services. The ISO certification is required to ensure that organizations meet the minimum quality standards that are acceptable world over. Many organizations worldwide are now striving to ensure that they get ISO certified to ensure that they retain their customers as well as having an opportunity to compete globally.

A growing number of organizations are recognizing improved quality as the key to survival. The notion of quality as a competitive tool has been around for several years; however, today it is receiving much more attention especially with the introduction of ISO quality standards. In this period of fierce global competition, a consumer does not have to tolerate poor quality products or services. People are at the heart of every quality improvement program; as a result organization needs to have mechanisms that ensure that they have the best quality for goods and services.

The research findings will be of use to scholars and management of organizations since the methods of improving employees' productivity using ISO 9001:2008 quality management system certification have been suggested. These research findings will also serve as a stepping stone for new research in the future. Researchers, research institutes and students in the field of human resource management who want to know more about how to improve production of employees using the principles of ISO 9001:2008 quality management system will also find the study beneficial.

STATEMENT OF THE PROBLEM

Globalization and technological advancement means that organizations today must be competitive than ever before in order to survive grow and prosper. Such competitiveness can be achieved through being ISO 9001:2000 certified. The quest to be competitive has led many organizations to change how they operate or produce their goods and services. Regional and economic integration has led to increased competition in the price sensitive Kenyan sugar industry due to entrance of cheap sugar brands from the same. To achieve competitive advantage through maintenance of quality, the producer must ensure that they achieve the highest possible standards in order for them to attract and maintain the consumers in the market. The means through which they can achieve these standards can be through ISO 9001:2000 certification.

There is dearth research in Kenya in the area of ISO 9001:2000 quality management system certification and its role in other organizational outcomes. As such and given the importance of quality to customers, this paper seeks to evaluate the role of ISO 9001:2000 certification in Kenya's sugar industry using Mumias Sugar Company as a case study.

LIMITATIONS OF THE STUDY

In order to assure manageability of the collected data, the study will use survey questionnaire that will rely on self report responses, however, the problem with using survey questionnaire is that it is based on the assumption that participants will respond to the questions in an honest and accurate manner. Nevertheless, it is not always the case that participants answer in an honest manner. This is because participants will often give responses that they believe to be socially desirable (Donaldson & Grant-Vallone 2002).

THEORETICAL FRAMEWORK

The study was guided by the Kaizen Philosophy of continuous improvement. Kaizen is a Japanese philosophy of continuous improvement of all employees in an organization so that they perform their tasks a little better each day. It is a never ending journey centered on the concept of starting a

new each day with the principle that methods can always be improved (Oakland, 2000).

Kaizen means improvement Japanese. It was propounded by a Japanese scholar Masaaki Imai who defined it as on going improvement involving everyone from top management, managers and workers. The Kaizen strategy recognizes that management must seek to satisfy the customer and his needs if it is to survive and grow in business. It assumes that all activities should ultimately lead to enhanced customer satisfaction.

Kaizen is a compound word involving two concepts (*kai*) change and to (*zen*) become good. To engage in Kaizen therefore is to go beyond ones contracted role to continually identify and develop new or improved process to achieve outcomes that contribute to organizational goals. One of the primary goals of Kaizen is eliminating waste and considering both process and end results.

Kaizen embraces the following principles:

It is process oriented: processes need to be improved before results can be achieved; Improving and maintaining standards: combining innovations with on going effort to maintain and improve standard performance levels; People orientation: kaizen should involve everyone in the organization, kaizen focus primarily on improving work methods, routines and procedures usually defined by management. Kaizen locates the responsibility of the process improvement with those who are actually involved into the process (Colenso, 2000). Continuous improvement is required in all activities of an organization, be it in productivity improvement, new product development, labor management relations or total productivity maintenance; Customer orientation among others all are directly or indirectly productivity generating activities of the organization which come under the umbrella of kaizen.

Basically kaizen has to do with small step by step continuous improvements. It believes that all people at all levels in the organizational hierarchy can contribute to improvement. This is possible because kaizen asks for only small improvements. It is important to note that kaizen is to be performed at all levels from top management to lower level employees (Chary, 2004).

Kaizen has to do with the philosophy of or strong commitment to continuous improvement. Without a philosophical basis, improvement can diminish and disappear over time. Continuous improvement can therefore be achieved by organizations through training that will equip the employees with the skills knowledge that can enable them do their work better

hence improve on the quality of work that they undertake hence remain competitive.

This theory/philosophy is therefore relevant to this research since it provides an insight of the need to continuously improve the way organizations carry out their functions. In order to maintain the necessary quality standards so that they can attain the internationally recognized ISO and remain competitive in the diverse market.

MATERIALS AND METHODS

This study used case study method of research in Mumias Sugar Company. Data collection instruments were questionnaires, interview schedules and documentary review. The target population was 1646 from seven departments. Using simple random sampling, a total of 181 (11% of the population) respondents were used as the sample for this study. The sample size was arrived at using Yamane formula (Taro, 1967). Questionnaires were used to obtain data from these respondents. Descriptive statistics used included mean, percentages and frequencies. The chi-square (X^2) statistic was used to test whether there is a relationship between ISO certification and production and results were presented in tables. Structured interview was used to collect information from departmental heads only. This research also relied on documentary materials that were made available by the ISO secretariat. Documents used included quality management systems records from the company's ISO secretariat office, production records before and after ISO certification and budgetary allocations towards ISO activities in the company.

RESULTS

From the questionnaires administered, there was a response rate of 172 (95%). Male were 131 (76%) while female were 41 (24%).

Research findings were tabulated as follows:

1. Academic Qualifications: -

Qualification	Frequency	Percentage
Certificate	49	28.5%
Diploma	75	43.6%
Bachelors Degree	35	20.3%
Masters Degree	9	5.2%
Others (Certificate of Primary Education, Kenya Certificate of Primary Education or Kenya Certificate of Secondary Education)	4	2.3%
Total	172	100%

2. Distribution of Staff According to Area of Work

Area of Work	Frequency	Percentage
Management	70	40.7%
Technical	49	28.5%
Support	53	30.8%
Total	172	100%

3. Length of Service

Years	Frequency	Percentage
Less than 5 years	29	16.9%
5-10 years	63	36.6%
over 10 years	80	46.5%
Total	172	100%

4. Productivity before ISO 9001:2000 Certification

Option	Frequency	Percentage
High	30	17.4%
Average	87	50.6%
Low	53	30.8%
Very low	2	1.2%
Total	186	100

5. Chi-Square Test Before the Company was ISO 9001:2000 certified

Production before the company was ISO 9001:2000 certified	
Chi-Square(a,b)	95.849
df	3
Asymp. Sig.	.000

($X^2=95.849$) was found to be significant at 1% level.

6. Productivity After ISO 9001:2000 Certification

Option	Frequency	Percentage
High	163	94.8%
Average	7	4.1%
Low	2	1.2%
Very low	0	0%
Total	172	100%

7. Chi-Square test After the Company was ISO 9001:2000 Certified

Production before the company was ISO 9001:2000 certified	
Chi-Square(a,b)	314.710
df	2
Asymp. Sig.	.000

($X^2=314.710$) was found to be significant at 1% level.

From the above results, there is a strong relationship between the level of production and ISO 9001:2000 certification after the company was ISO 9001:2000 certified going by the higher figure of the chi-square test after certification as compared to before certification.

DISCUSSION

The study found existence of a stronger relationship between ISO 9001:2000 certification and the level of production after the company was ISO 9001:2000 certified. This can be attributed to the advantages of acquiring ISO 9001:2000 certification. It is in the process of implementing ISO9001:2000 requirements that the setbacks in production are identified and corrected hence an increase in production. These

findings are consistent with findings of Feng, Terziovski & Samson (2007) who conducted a survey in Australia and New Zealand-based manufacturing and service companies to determine the relationship of ISO 9001:2000 quality system certification with operational and business performance. They found a positive and significant relationship between certification practices (implementation, organizational commitment and planning) with operational performance.

The study findings indicate that Mumias Sugar Company availed the necessary resources needed for the implementation of the ISO 9001:2000. These requirements were captured in the planning phase where there was management commitment, the appointment of a quality management representative who was responsible for establishing, implementing and maintaining a quality management system conforming to ISO 9001:2000 standards.

CONCLUSION

ISO 9001:2000 Quality Management System Certification provides a means through which organizations can improve quality of its products / services. The study determined that the company experienced an increase in productivity after the attainment of ISO 9001:2000 certification. Both the company and employees have experienced benefits that have accrued as a result of attaining ISO 9001:2000 certification. These findings are in line with a similar study findings conducted by Amiran (2000) where he noted that the attainment of ISO 9001:2000 certification had internal and external advantages to the organization. Organizations seeking to improve product / service provision can therefore resort to implementation of ISO 9001:2001 Quality Management System certification.

RECOMMENDATIONS

From the study findings, recommended ways of ensuring enhancement of production include:

- (i) Regular Audits: ISO9001:2000 is based on continual improvement philosophy, it is prudent that the company should carry out regular audits to check areas of non conformities hence reduce occurrence of errors. Further the regular audits will enable the company to identify areas of continual improvement in the company.
- (ii) Conducting of Refresher Courses for Auditors: Companies should ensure that they conduct refresher courses for the internal auditors to enhance their skills and knowledge on ISO9001:2000 QMS as they keep on changing. In November 2008, the ISO 9001:2008 was been introduced it would therefore be advisable for the company to update the implementers with its

requirements in advance before its application.

- (iii) Identification of Customer Needs: Since ISO9001:2000 is customer focused, companies should develop a strong customer service machinery by ensuring that they capture all the customer complaints and be able to identify what they need and act according to the needs of the customers. 5
- (iv) Auditing for All Suppliers Input: Companies should regularly carry out an audit on all their suppliers to ensure that they too conform to ISO 9001:2000 requirements. This will enhance quality on all their inputs and ultimately the processes and output.
- (v) The research findings indicate that MSC has been consistent in the measurement of processes, products and services. These are done on a regular basis so that corrective action is taken before products and services are taken to the market.

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