Quality Performance Analysis. Case Study - Schlumberger Company

Albu Madalina

Gas University of Ploieşti, Romania, E-mail: madalinaalbu@yahoo.com

ARTICLE INFO

Article history:
Received: December 2, 2014
Received in revised form: December 12, 2014
Accepted: December 15, 2014
Available online: December 20, 2014

KEYWORDS: Quality Performance, Quality Management, SWOT Matrix

ABSTRACT

Quality requirements are expressions of needs that relate equally to the market (the default), the contract (explicit), internals enterprise profitability requirements and the requirements of the protection of society and the environment. For this reason, the requirements can take many forms as it relates to performance, reliability, cost-effectiveness, economic aspects of achieving cost and maintenance and operating environment.

Quality control for overall company is an integrated concept that is based not only on mastering quality throughout the manufacturing of a product, but also controlling costs, quantities and delivery dates.

The concept of "zero defects" everything must be done right the first time and every time, that goal can be achieved only by removing the two main causes of waste generation or insufficient level of knowledge and carelessness.

Paper presents case study to Schlumberger Company.
**Introduction**

In the current socio-economic context, the quality of products has established itself as a determinant of the competitiveness of enterprises because it provides the ability to adapt to the increasingly dynamic markets.

Quality requirements are expressions of needs that relate equally to the market (the default), the contract (explicit), internals enterprise profitability requirements and the requirements of the protection of society and the environment. For this reason, the requirements can take many forms as it relates to performance, reliability, cost-effectiveness, economic aspects of achieving cost and maintenance and operating environment.

Quality control for overall company is an integrated concept that is based not only on mastering quality throughout the manufacturing of a product, but also controlling costs, quantities and delivery dates.

The concept of "zero defects" everything must be done right the first time and every time, that goal can be achieved only by removing the two main causes of waste generation or insufficient level of knowledge and carelessness.

This theoretical concept should be applied in practice at all stages of making a product, generating a set of five significant zero: zero manufacturing defects, zero delays in product delivery, zero stock, zero paperwork informational zero feathers in operation of machines, the which normally should lead to zero complaints and zero evident dissatisfaction from the customer, and this is the main objective of total quality.

It also cannot ignore the social aspects of the enterprise. Normal working conditions and good corporate social image is obtained by applying zero accidents, which would lead to better social protection of personnel, to improve working conditions. Of great importance in terms of production efficiency and a favourable social image has successfully applying the method zero conflicts.

**Industrial Excellence**

Industrial Excellence means ensuring success in the competition by making high-quality products, in terms of efficiency for the enterprise to be offered to customers at minimum cost and in a short time.

Politics excellence means exceeding customer expectations, their employees and competitors. Excellence strategy attempts to find a way of achieving concomitant threefold: maximum results quality in minimum time.

As this requires a number of managerial attitudes such as:

- Preference for quick action;
- Attention to the views of customers;
- Promoting innovative spirit;
- Instilling motivation performers;
- Identification of core values around which to mobilize employees;
- Create simple organizational structures;
- Creating a flexible work environment.

At the same time have identified some skills absolutely mandatory that a manager must have, namely: creativity, sensitivity, adaptability vision. Gaining these skills is through training.

To achieve excellence should be an increase overall activity translated into an increase in their assets, the ratio of real value / marginal value of shares, dividends paid, capital and sales efficiency. Appreciation of excellence is by analysing the quality of management, product quality, financial soundness, ability to raise funds, develop competence, responsibility shown towards the environment.
Analysing these issues and trying to highlight just those fundamental excellence strategies can appreciate that concern: continuous innovation, internal synergy, quick reactions, and partnership with beneficiaries and providers.

**Principles of Total Quality Management**

1. Compliance with quality requirements throughout product realization path involves addressing each activity closely related to upstream and downstream activities, client-grossing foreign supplier at all functional and operational linkages of the organization. Each compartment or worker must be regarded as an internal customer and internal supplier whilst in its relations with other departments / employees.

2. Culture quality. Application of total quality management in an organization involves the development of a quality culture by promoting a new system of values centred on quality, based on a new style of management with creative features, participatory, linking business objectives with the interests of employees.

Developing quality culture requires adopting specific actions and attitudes such as:

- Implementation of a new philosophy to customers, employees and suppliers, the customer is considered the main element that employees represent the most valuable asset and suppliers are viewed as extensions of the organization;
- Promoting the concept of Kaizen, which means a gradual improvement continues of how to perform the work, with the objective of raising the quality of work of each individual;
- Promoting the concept of zero defects ensure work orientation towards prevention of damage both to the operations or phases of technological and deficiencies in the functioning of various departments;
- Creating a working environment based on respect, trust and credibility through accurate information up and down, encouraging ownership of responsibilities, effective communication and constant both between employees and between management and employees;
- Permanent involvement of every employee from the top leadership of the organization, all departments and each employee in achieving and improving quality;
- To promote teamwork at all hierarchical levels of the organization.

3. Developing human resources, the human factor is considered central to the process of achieving quality, based on the premise that ensuring coherence worker-machine in relation to the enterprise environment is the determining factor in the development of processes to standards of quality.

Human resource development can be divided into the following three categories of activities: training and development, organizational development, career development.

Provides training activity providing knowledge and skills needed to meet the demands of a job while preparing employee development activity to meet future responsibilities within the organization and reported at both the employees and managers.

Organizational development improves organizational efficiency by means of behavioural science to the human factor. This involves a range of activities such as:

- Changes in the behaviour of the human factor by training and consultation of employees, establishment of work teams;
- Structural changes in their job analysis and redesign;
- Analyse problems through the application of modern management methods and techniques.

Career development is a continuous process through which individual progresses along a series of professional stages, each stage having its particularities regarding the matters and issues resolved.
The concept of total quality management through human resources development must ensure closing the gap between the actual and the required level of knowledge and skills of staff by creating learning opportunities for every employee in the enterprise.

4. Organizational development through changes in the behaviour of the human factor and develop a quality culture based on employee involvement and better communication between them, are elements supported by a corresponding motivation. Practice has shown that big business is driven by the motivation of workers applied management style and leadership traits of community.

To get to master quality requires quality management to ensure on going information, training, motivation and empowerment of the human factor.

**Quality Performance. Case Study - Schlumberger Company**

Founded in 1926, Schlumberger is a global leader in providing technology, integrated project management and information solutions to customers working in the oil and gas industry worldwide. At December 31, 2008, the company employed approximately 87,000 people from over 140 nationalities operating in approximately 80 countries. Schlumberger has principal executive offices in Paris, Houston and The Hague, and is comprised of two business segments - Schlumberger Oilfield Services and WesternGeco. Schlumberger Oilfield Services offers the largest range of products and services from exploration to production worldwide, while WesternGeco is the most technologically advanced surface seismic acquisition company.

Schlumberger Oilfield Services is a global leader in providing technology, integrated project management and information solutions to the international oil and gas industry, both exploration and production TLS. Schlumberger Oilfield Services manages its business through GeoMarket regions, which are grouped into four geographic areas: North America, Latin America, Europe / CIS / Africa and Middle East and Asia. GeoMarket's structure offers customers a single point of contact at the local level for local operations and brings together specialist teams in a particular geographic area to meet local needs and provide customized solutions.

Schlumberger invented the electric logging (wire line logging) as a technique for obtaining data in oil and gas wells. Today, Schlumberger Oilfield Services operates in all major markets oilfield services, delivering services that cover the entire lifecycle of the reservoir. These services, in which Schlumberger has an impressive number of leading positions, are organized into technology centers based product lines and services or technologies to harness and focus the maximum available technical knowledge and to introduce innovative solutions in GeoMarket regions.

Technologies are also responsible for overseeing operational processes, resource allocation, staffing and quality, health, safety and environmental GeoMarket.

Technological innovation, service quality and price differentiation are the main methods that differentiate from the competition, and they vary in geographically depending on the services offered. Although there are numerous competitors both large and small, Schlumberger believes it is a market leader in providing electric logging, well testing, measurement while drilling, logging while drilling, directional drilling and logging services Geoscience and fully automated software and computing services. Much of Schlumberger offers are not related to wells; consequently, revenues do not necessarily correlate with the number of wells serviced.

**SWOT Matrix**

Every company exists to create profit for its shareholders. Each company chooses from several options to best achieve its objectives. The path chosen is communicated to shareholders, employees and customers through the enunciation of policies, mission and vision of the company.

Guided by this vision, marketing managers make a strategic analysis of internal factors (strengths and weaknesses - “Strengths and Weaknesses”) and external factors
opportunities and threats - "Opportunities and Threats") to determine the market segment to be served.

This strategic analysis is called SWOT (Strengths, Weaknesses, Opportunities, and Threats). After completing this step, marketing managers develop a marketing strategy specific form segments, sometimes called competitive strategy, for the markets of interest.

- **Strengths**
  - Technological Superiority
  - Strong market position - leading Oilfield Services
  - Steady increase revenue

- **Weaknesses**
  - Decreased revenues in WesternGeco
  - Operating margin declining
  - Poor growth rate in North America
  - Almost absolute dependence on oil and gas

- **Opportunities**
  - Agreements with ONGC
  - Strategic Acquisitions
  - Agreement and mergers (last merger: Schlumberger and Smith)

- **Threats**
  - Intense competition: Baker Hughes, Weatherford, Halliburton
  - Environmental Laws
  - Macroeconomic factors adversaries
  - Oil price instability
  - Political Risks

**The Quality Management System at Schlumberger Company**

Long-term business success of the company depends Schlumberger ability to continuously improve products and services, while protecting workers and the environment in which they work and live. It is a commitment that protects the best interests of customers, employees and shareholders.

QHSE (Quality, Health, Security and Environment) is the responsibility of line management, with the support and active engagement of all employees. The goals pursued are:

- Providing quality products and services at the highest standards;
- The protection of health, safety and ownership of employees, customers, contractors and others
- Protecting the environment in the communities in which the company works and operates.

The company is committed to proactive integration of QHSE objectives into management systems at all levels, actively reinforced by rewards and recognition programs specific. This is crucial for business success because it reduces risk and provides a valuable addition Schlumberger products and services compared to the competition.
The company's vision is to implement a culture of quality services to overcome the expectations of customers, and to allow all employees to be actively involved in the continuous improvement process, and enhance growth.

To implement this vision, the company is committed to:

- To define and respond to customer expectations
- Adapting to changing and expanding business conditions and market opportunities
- Differentiation its services competition
- Reaching a leadership position in the field of QHSE industry.

Mission QHSE is to ensure that the quality, health, safety, security and environmental considerations remain top priorities for the management and all employees. Preventing accidental risks and losses from non-standards becomes an integral part of the culture of continuous improvement.

QHSE, line management responsibility requires visible commitment, leadership and involvement in their model. Proactive QHSE culture must be understood, shared and practiced by all employees as part of everyday activity. A fundamental concept for this culture is the belief that all losses of people, property and process management are the consequence of failure and can be prevented.

Shlumberger specific QHSE Management System defines the principles by which the company conducts its operations worldwide in terms of quality services and products, health and safety of customers, employees, contractors and the communities in which the company works, and environmental protection.

This QHSE philosophy is communicated to all employees, customers, contractors and third parties associated with Schlumberger operations, and each group of products and services from Schlumberger must provide positive evidence of conformity to management system.

The type QHSE management system comprises eight components:

- Commitment and leadership by example;
- Policies and Objectives
- Organisation and resources;
- Managing contractors and suppliers;
- Risk management;
- Design and Planning;
- Implementation and monitoring;
- Evaluation and continuous improvement.

**Conclusions**

Corrective actions and training programs continue to be implemented in all locations, and cover all employees and customers, and a culture of "no blame" that encourage employees to report problems and suggest improvements to standards, processes and existing systems.

All reports of noncompliance QHSE and suggestions will be considered and closed in a manner demonstrating the confidence and commitment to the improvement in QHSE. Regular feedback from field operations and from clients on the quality of products / services is encouraged, reviewed by management and documented to ensure development and continuous improvement.

Will be put in place systems to identify customer needs and technical developments of the competition. QHSE function will support line management in analysing problems and developing plans to improve on customer needs and new technologies. Regular assessments of the quality of customer service will be held as part of the on-going quality improvement.
References