

CUSTOMER-SUPPLIER PARTNERSHIPS AND TOTAL QUALITY MANAGEMENT IN CUSTOMER-SUPPLIER PARTNERSHIP CONTRACTING

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SUMMARY

Commencing with a description of the various approaches to quality management and the evolution of this concept over time, from quality inspection to quality assurance and, ultimately, total quality, this paper goes on to describe the requirements that suppliers must meet to be eligible for procurement contracts under customer-supplier partnership terms. An analysis of what their quality management model should look like concludes that the total quality model is best suited to these purposes. Quality management parameters, concepts, criteria as well as objectives are specified. Finally, the paper analyses how quality control should be managed in a customer-supplier partnership.

QUALITY MANAGEMENT SYSTEMS.

Quality management was traditionally based on a comprehensive examination of the finished product leading to rejection or approval depending on compliance with a number of specifications.

The introduction of the ISO 9000 Quality Assurance standards and the implementation of certification and rating systems has led to the development of management systems based on the establishment of certified quality systems which comply with those standards. Checking and verifying the system has gained precedence over checking the end product.

Recently, the appearance of Total Quality Management models (such as the European EFQM model) is leading certain suppliers to move towards the implementation of quality systems which, while complying with those models, have continuous improvement and total customer satisfaction as their primary goals. Suppliers which have total quality models in place are, in principle, in a position to establish supply contracts with customers under a quality partnership system.

COMPARISON BETWEEN FORMS OF QUALITY MANAGEMENT.

Table 1 shows the differences, from several viewpoints, between the several forms of quality management mentioned above.

WHAT CAN BE DEMANDED FROM SUPPLIERS UNDER QUALITY PARTNERSHIP AGREEMENTS.

As a result of the development of new logistics models for the supply of materials for electricity distribution projects and installations, progress has been made towards the establishment of quality partnerships in supply contracts.

The requirements to be met by a supplier in order to implement a quality partnership in a supply contract are as follows:

- It must be recognised by the buyer as a supplier for the product in question.
- The buyer must have given it a high quality rating or index.
- It must have an ISO 9000-compliant Quality Assurance System, certified by an accredited certifier.
- It must have a Total Quality type quality system based on (for example) the EFQM European Total Quality Model.
- It must have a good track record as a supplier to the buyer.

As regards the basic ideas of the Total Quality culture which must imbue the supplier's entire quality philosophy, that culture must meet the following general requirements:

- Oriented towards satisfying customer needs.
- Leadership by Management, which must create an unequivocal quality culture and set of values.
- Decisions must be based on an analysis of facts and data.
- Continuous improvement to achieve maximum levels of quality and competitiveness.
- Company personnel must participate and be committed.
- Quantitative results about quality and about satisfaction on the part of customers, employees and society in general, plus economic results.

These requirements focus on six areas of action: organisation, product life-cycle, environment, technological progress, commercial and human resources.

The Quality Partnership agreement is established between a customer and a supplier, specifying the conditions to be met when supplying a product and the degree of

responsibility acquired with respect to the product's quality. Establishing this agreement implies that there is a high level of trust between the parties. Within this framework, the customer monitors the supplier during the implementation phase.

Once the agreement is established and signed, the customer maintains a system of audits to check and maintain the level of the supplier's Quality System.

QUALITY CONTROL IN SUPPLIES COVERED BY A QUALITY PARTNERSHIP AGREEMENT.

Quality control systems have evolved over time in a similar way to quality management systems. Controls were traditionally based only on inspections on reception, which were on an overall basis, checking whether the product as a whole met certain specifications, and were conducted by means of repetitive routine tests or sampling. Quality control nowadays is generally based on strong initial screening of the product using type tests and the requirement that the manufacturer have an ISO 9000-compliant quality assurance certificate, which entails the need for subsequent monitoring and periodic inspections (which are not so repetitive) of both the quality system and the product, plus very selective sporadic reception tests involving not only reception but also type tests.

How is quality control conducted under a quality partnership? In these cases, quality control does not disappear; rather, it is totally transformed – to be based on mutual trust between supplier and buyer instead of mistrust. The total quality model which the supplier must have in place necessarily contains an ISO 9000 certified quality assurance system and, to attain a Quality Partnership, the supplier must be recognised beforehand by the buyer for the product in question. Moreover, its total quality model imposes the search for continuous improvement, participation by the whole organisation and a search for customer satisfaction. Consequently, the customer's quality control should match this philosophy and, therefore, it will be based on the following aspects and requirements:

1. The supplier becomes the one carrying out the

customer's quality controls and it undertakes to make all intermediate manufacturing checks plus final product reception tests and to record the data and results and have them at the buyer's disposal at all times (for a given time period, at least).

2. The supplier undertakes to perform periodic type and special tests on the product in question, giving prior notice to the customer, which reserves the right to attend the tests; at all events, the supplier must record the test results and send them to the customer.
3. The supplier undertakes to adhere to and check the quality parameters established by the buyer, which may occasionally exceed the requirements of the related standards. These quality parameters are established in the related contract by mutual agreement.
4. At the customer's request, the buyer must provide the former periodically with the data it needs regarding the results of checks and tests, on the appropriate media, in order to enable the performance of analyses, checks and statistics.
5. The supplier must enable the buyer to carry out the periodic and sporadic inspections, audits and tests which it considers necessary to evaluate and check the maintenance of:
 - Its ISO 9000-compliant Quality Assurance System.
 - Its Total Quality Management Model.
 - The agreed quality parameters.
6. Breakdowns or failures in the use of the product in question must be analysed jointly to detect the causes and agree on the necessary corrective or preventive action. Each year or as often as they may agree, the supplier and the customer carry out a joint review of the workings of the Quality Partnership agreement in order to detect failures, provide and implement corrective action, review the established parameters and indices and commit to co-operation in management and technical areas in order to achieve continuous improvement and to optimise performance.

TABLE 1

ASPECT	QUALITY INSPECTION	QUALITY ASSURANCE	TOTAL QUALITY MANAGEMENT
Scope	Product-related	Mainly, the production process and, to a limited degree, some support services	Process-based management of all the company's major processes
Objective	Error detection	Build trust by meeting the standards and using a documented quality system. Internal efficacy. Minimum effort.	Attain customer satisfaction (internal and external) by continuous improvement Effectiveness. Excellence.
Philosophy	Classification of quality products after manufacture	Generate quality from design to delivery. Underlying suspicion of distrust.	Improve quality in all aspects of the organisation – "Quality as a way of life". Based on trust.
Reference	Product specifications	Quality manuals and procedures	Understand customer expectations
Responsibility	Quality Dept. and inspectors	Management representative for the Quality System	Senior management as a team. Everyone at his/her workplace. Joint responsibility for inter-departmental processes
Customer orientation	Little attention is paid to customer	Customer expectations expressed in specification. Scant customer orientation	Internal and external customers are vital. Oriented towards partnership.
Persons	No attention is paid to them	Training for tasks which influence product quality. Personnel Dept.	"People make the difference" Commitment, motivation, development of delegation to personnel. Human resources management. Team-work (interdepartmental)
Quality	End-product conformity with specifications	Conformity with the quality system. System quality.	Quality as perceived by the customer. Quality of the organisation as a whole.
Suppliers	Little attention is paid to them	A factor to be controlled (distrust)	Efforts towards a trust-based partnership; a supplier is an important link in the quality chain.
Standards	Product specifications	ISO 90001, 9002, 9003	(ISO 9004) EFQM European Quality Award criteria (Europe) Deming Award criteria (Japan) Malcolm Baldrige criteria (US)