**MNP 2601 Purchasing Management**

**Chapter 7: The management of quality in purchasing and supply**

The application of QMS in the purchasing and supply context is increasingly being considered a prerequisite for Comprehensiveness in the private sector any guarantee of good governance in public sector institutions. A QMS is a comprehensive set of procedures and working methods of an organization which ensure that its outputs satisfy the customer’s needs and which safeguard the overall interests of the organization in line with its mandate, vision and mission

A QMS consists of:

* Quality planning – part of quality management focused on setting quality objectives and specifying necessary operational processes.
* Quality assurance – part of quality management focused on providing confidence that quality requirements are fulfilled.
* Quality control – part of quality management focused on fulfilling quality requirements.
* Quality improvement – focused on increasing the ability to fulfil quality requirements.

**Demarcation of the responsibilities of P & S**

Quality is equally important for the internal customer of the supply function since it contributes towards efficiency and total cost within the firm.

Quality is the total combination of features and characteristics through which a product or service when used will meet or exceed expectations of the customer by being able to satisfy the specific need.

Burt et al. (2010): four main responsibilities of supply management

* Creation of compete and appropriate specification for quality requirements
* Selection of suppliers that have technical and production capabilities
* Development of realistic understanding with suppliers of quality requirements and creation of the innovation to perform accordingly
* The monitoring of suppliers quality/cost performance and the exercise of appropriate control.

The task can be subdivided into management task which is clearly related to managing the supply base and the technical side which has to do with standardization specifications and quality control procedures.

The technical component can be subdivided into two perspectives of quality:

* Design quality – specific characteristics of the products that determine its value in the marketplace
* Conformance quality – how well the product is made with respect to its design specifications

**Supply management and internal service quality**

Ensuring quality for ultimate customers is seldom questioned

The quality level delivered to final customers is the result of the each link in the supply chain – internal customers of supply management are equally important in the total drive for quality.

Internal service quality is of crucial importance for the following reasons:

* It impacts on an organizations ability to meet the demands of supply chain partners
* Supply management has customers internal to the organization are equally dependent on good quality to perform effectively.
* Internal customers i.e. operations, design, logistics etc. contribute just like the firm’s external suppliers to the satisfaction of the ultimate customer.
* The internal quality of the workplace is the biggest contributor to employee satisfaction.

To improve the quality of internal service delivery, much more emphasis on internal customer relations and an improved understanding of the needs of internal customers is required.

**Supply management and supplier quality management**

Buyers will be looking at the following characteristics from a customer oriented supplier:

* A reliable quality assurance system
* Effective control operations aimed at maintaining quality
* Built in quality in day to day activities
* Continuous quality improvement
* Awareness of the quality policy within the company
* International quality certifications

**Cost of quality**

Table 7.1 - Most of the tasks and activities aimed at preventing poor quality from reaching the firm and its customers

The cost of prevention is lower than the cost of correction.

Handfield et al 2009: 289 Burt et all 2010: 155

*Prevention costs*

Costs related to actions aimed at preventing quality errors and the cost they will cause i.e. Equipment adjustment and calibration, Process redesign and control

*Appraisal costs*

Costs incurred when products and services are inspected or evaluated in order to ensure that inadequate quality products, Materials and services do not into the internal operational processes of the firm

Included in appraisal costs:

* Cost of incoming inspections
* Testing of purchased materials
* Semi-finished and final product inspection
* Supply of audits
* Recording and processing of data related to quality.

*Failure cost*

Incurred when products and services that do not comply with the quality expectations of the customer actually reach the customer. The two types of failure include:

* Internal failure costs – Incurred after production and before delivery ie. Cost of scrap, disposal, rework
* External Failure costs – Customer returns and the replacement of faulty products, warranty claims, legal etc

Firms are convinced that the cost of prevention is lower than the cost of appraisal and failure.

The cost of attracting new customers in a competitive environment is high compared to the relatively low cost of retaining an existing customer.

**Purchasing and supply: quality management systems**

**TQM**

More than a system it’s a management philosophy. Stretches over the entire supply chain, influencing all participants and also the ultimate customer.

One of the main elements of the philosophy of TQM is the attitude of the firm and that every employee must be directed towards a continuous driving for improvement across all activities of the company and the supply chain.

All individuals and teams working towards Internal and external customer satisfaction should endeavor to provide fault free products and services.

The basic elements of a TQM system include:

* Commitment
* Coordination
* Personnel management – empowerment, training, teamwork, performance evaluation etc
* Supply management
* Quality information – reliable information on customer satisfaction, supply and purchasing performance
* Performance evaluation

TQM in supply management originates with the customer and is part of the internal departmental philosophy and which is carried over to the supplier to the suppliers supplier.

The impact of TQM on purchasing and supply can be summarized in the following points:

* Customer focus
* Structured relationships – internal and external customers and suppliers
* Performance measurements – TQM demands continuous improvement & performance measurement
* Employee involvement
* Involvement in teamwork

**Six Sigma**

Focuses on processes, and insists on a level of quality consistent with six standard deviations from the mean.

Embedded in the six sigma philosophy is the concept of continuous improvement.

See figure 7.1 of the textbook

**Quality management system of the international standards organization (ISO)**

A quality management system (QMS) is defined as:

*Pursuit of coordinated activities to direct and control an organization in order to continually improve the effectiveness and efficiency of its performance.*

A fully documented QMS will ensure that two important requirements are met:

* The customer’s requirements
* The organization requirements

The ISO developed a set of eight principles the enterprises may use as a guide to the implementation of quality programmes:

The principles of the QMS are:

* Principle 1: **customer focus** – understand current and future requirements
* Principle 2: **leadership** – commitment to quality philosophy at top management level
* Principle 3: **involvement of people** – promote a culture of quality awareness
* Principal 4: **process approach** – management of all activities and the resources required to fuel the process
* Principal 5: **systems approach** – managing interrelated processes is a system
* Principal 6: **continual improvement**
* Principle 7: **factual approach to decision-**making – leads to the insistence that all data and information are absolutely accurate, reliable and accessible.
* Principal 8: **mutually beneficial supplier relations** – suppliers should be treated as an extension of the firm

**Purchasing and supply: cyclical element of quality**

The three main techniques which can assist supply management in achieving its goal to ensure quality are:

* Standardization
* Value analysis
* Quality assurance

***Standardization as an aid for quality decision.***

The formal acceptance of standard items is derived mainly from three sources:

* International standards
* National or industrial standards
* Business standards

Standardization of commercial terminology influencing the global logistics system is increasingly important

The SABS mark serves as a guarantee that the product satisfies a certain standard specification.

Standardization implies that the characteristics of items have to comply with a specific minimum acceptable standard.

*Advantages of standardization*

* Less stock needs to be kept to be kept when a standard item is suited to many applications.
* Larger quantities may be ordered at a time, creating the opportunity for negotiating larger discounts
* Inspection and quality control of the incoming goods of the celebrated what you mean eliminated when standard as products are part of the supply base
* The possibility of mistakes and doubts when orders are placed or eliminated
* The usually cheaper standard items may reduce the cost of final products which makes the firms competitive position improve.
* Standard items are more readily available

*Standardization and purchasing decisions*

Standardization maybe using a variety of circumstances:

* When a firm is experiencing severe price competition or inflation and it becomes necessary to reduce costs to stay competitive
* When the demand for a product Is uncertain and the firm does not wish to invest substantially in the manufacture and purchase of non-standard items
* When there is doubt about the suppliers ability to maintain constant quality
* Standardized items require less technical skill.
* Standardisation can also be used when a firm is experiencing a shortage of funds

*International standards: ISO*

ISO 9000 – 9004

Many South African organizations now demand ISO 9001 certification from a supplier

***Venue analysis as an aid for decisions and quality***