

Introduction

If you have spent some time working in industry, commerce or a government department, you will be aware of how quickly management fashions can come and go and, no doubt, you may have become a little cynical about the whole process of change. So, maybe, when you first heard about Quality Management or Business Excellence, or maybe Six Sigma or Lean Operations, you may have thought this is not worth my time and moved on to something more pressing.

If that was the case, then there is mounting evidence to suggest that you might have been a little premature. Most major companies across the globe now realise that Quality, in all its manifestations, is necessary to succeed at every level in an increasingly competitive marketplace.

A Quality Management programme has the potential to deliver huge improvements to the efficiency and effectiveness of your organisation and, if adopted, it will continue to do so far into the future but, to achieve this, you must view Quality Management as a strategic initiative to be embraced by everyone in the company, it must be seen as a new way of working, a new culture and a new philosophy, not as a short-term fix to your process problems.

Aims

The aim of this programme is to provide you with the knowledge, skills and confidence to design, develop, implement, lead and become an advocate of Quality Management strategies within your organisation. To achieve this, we aim to provide you with a grounding in the theory of Quality Management and, by exposing you to real business case studies, to give you an introduction to the concepts, methodologies, tools and techniques that would be typically included in a Quality Management strategy.

Objectives

By the end of the programme delegates will be able to:

- Demonstrate an ability to communicate using quality management concepts and terminology
- Outline the key principles of quality management methodologies, including the Toyota Production System, Lean Thinking, Six Sigma, Benchmarking, ISO9001 and self-assessment using Excellence Awards
- Describe a Quality Management implementation strategy, listing the key stages and relate Quality Management concepts to an overall business strategy
- Explain how to deploy a range of quality management tools and techniques, including: 5S, FMEA, SMED, Control Charts, Process Mapping, Pareto Analysis, Cause & Effect diagrams and A3 planning charts
- Describe the organisational cultural factors that are necessary to deploy a successful Quality Management strategy.

Methods

It is our intention to provide you with an opportunity to understand the nature and practice of Quality Management. In order to achieve this, we will present you with a range of learning experiences including presentations, case studies and individual and team-based exercises and, to confirm your understanding of the material you will be required to sit an examination, the successful completion of which will qualify you for the MQMTM Certificate.

Duration: 3 days

Who it's for:

This executive program is designed to help experienced managers in all sectors of the economy explore the world of Quality Management with a view to extending their influence by incorporating the responsibility of Quality Management into their roles. This may include:

- Quality Directors and Senior Quality Managers
- Directors and Senior Managers responsible for a Business Operation
- Directors and Senior Managers responsible Functional Support departments
- Lawyers, CPAs and Engineers
- Professional Consultants.

Course Content

Day 1

Introductions and Administration

Continuous Improvement Strategies: background and development

The History and Development of Quality Management (QM)

- **Exercise: Define Terms including “Quality” the benefits to stakeholders of deploying a QM strategy**
- The different definitions of Quality explored, and a consensus reached on the meaning of Quality to all stakeholders
- The business case for Quality Management
- **Case study: Porsche**
- Developments in Japan and the key role of Dr W Edwards Deming
- What Deming taught the people of Japan
- How an understanding of common cause and special cause variation led to dramatic improvements in manufacturing in Japan
- The role of Shewhart Control Charts in identifying special cause variation
- **Exercise: calculating standard deviation**
- The potential problems caused through averaging
- Developments in USA:
 - the influence of Bill Conway at Nashua
 - the Malcolm Baldrige Award
 - self-assessment
 - Bill Smith and the birth of 6 Sigma in Motorola
- The Six Sigma methodology
- Developments in Europe:
 - the ISO9000 family of standards
 - the European Foundation for Quality Management
 - the Excellence Model, awards and the self-assessment process.
- The Benchmarking Process:
 - reasons organisations embark on a benchmarking exercise
 - the role of Xerox in developing Benchmarking as a defined process
 - types of Benchmarking activities
 - the standard Benchmarking process

Operations Improvement

Identifying waste in a process

- **Case Study: the baseball bat manufacturing process - video**
- **Exercise: identifying waste in the case study process**
- The seven classic wastes and some more

Day 2

Lean Operations

Case Study: the foundation of Lean Manufacturing – the Toyota Production System (TPS)

- The Foundations of TPS
- **Exercise: Heijunka**
- Standards, standard operating procedures, standardized work and job instructions
- **Exercise: standardized work**
- Just-in-Time Production
- **Exercise: Calculating Takt time**
- Jidoka
- The Cultural dimensions of TPS
- Black box thinking.

The 5 Principles of a Lean Strategy

- Principle 1 – Specifying value:
 - Defining ‘customer’ and the stakeholder domain
 - The importance of understanding both customer expectations and customer experience and the potential gap between the two
 - How to use the RATER model to improve understanding of the customer experience.
- Principle 2 – Map the Value Stream
 - An introduction to process mapping
 - Using SIPOC mapping to understand the high-level process steps and to engage operations staff in the improvement process
 - **Exercise: creating a SIPOC map**
 - Developing further insights into the process using Process Sequence Mapping
 - **Exercise: process sequence mapping**
 - Using Value Stream Maps to identify the detail of a process
 - **Exercise: creating an ‘as is’ Value Stream Map**
 - **Exercise: using a Value Stream Map to:**
 - Identify waste
 - Calculate Takt time
 - Calculate *Delta*T.
 - **Exercise: creating a ‘to be’ Value Stream Map.**
- Principle 3 – Create Flow
 - **Exercise: one-piece flow v batch processing**
- Principle 4 – Establish Pull
 - **Exercise: Push v Pull**
 - WIP inventory
 - Kan Ban systems
 - 2 & 3 bin inventory systems.
- Principle 5 – Strive for Perfection

The Toyota Workplace Organisation System

5S

- **Case study: a hotel kitchen**
- The 5Ss and how to implement a 5S system
- **Exercise: Wordbuild – designing a product and a process for building it.**

Day 3

Six Sigma

Case Study: TSB Homeloans

- The case for centralising processing
- Listening to the Voice of the Customer – identifying customer needs and expectations
- Data sampling and data collection
- **Exercise: data collection and making the calculations for the control charts**
- Control charts and how to prepare one for deployment
- **Exercise: completing an XbarR chart for the case study company**
- Analysing and interpreting a control chart
- Process capability and how make the calculations
- Tools and techniques used for process improvement in the case study company
- **Exercise: the Pareto Principle**
- **Case study: Using Cause & Effect Diagram to solve a problem in a Pizza Delivery company**
- Other control charts used in the case study company

Implementing a Business Improvement Strategy

From commitment to completion, the steps to be taken to implement a Business Improvement programme.

- Problem selection and the initial business case
- Establishing key stakeholder relationships
- The 17-step strategy to improvement

Single Minute Exchange of Die (SMED)

Deploying the principles of SMED in other industries

- **Cast study: a Formula 1 racing team - video**
- Example of SMED in other sectors.

Failure Mode & Effects Analysis (FMEA)

How to use FMEA to assess and reduce potential risks in a process or new product

- The FMEA process
- The FMEA format
- Example: deploying FMEA in a restaurant
- How to calculate a Risk Priority Number
- **Exercise: deploying FMEA to redesign a product**
- Summary, conclusions, action planning and follow up
- The MQMTM Examination

End of Course