

Research Brief

INDUSTRY NEEDS IN QUALITY IMPROVEMENT

Rene T. Domingo
Sime Darby Professor of Manufacturing
Asian Institute of Management

BACKGROUND

Major Philippine corporations, both in manufacturing and service, have started to embrace Total Quality Management (TQM) and Continuous Improvement (Kaizen) as their business philosophies to improve competitiveness. While IS development is welcome though long over due, the need for quality-expertise and experts within and outside the corporations have become acute. Managers with solid TQM experience and training are rare, Credible consultants and industry experts who can assist companies to set up their quality systems are similarly hard to find. The academe can help alleviate this problem by coming out with engineering graduates who are already trained in TQM and Kaizen. Corporations will not have to train them, pirate TQM managers of other companies, or worse, resort to trial and error by implementing TQM by themselves with little knowledge.

Industrial engineering being closest to business and management, is the most logical engineering field to re-engineer to suit the needs of Philippine industry. Currently, it is the engineering course with the most subjects dealing with quality and productivity improvement, though there are still inadequate. The curriculum have to be enhanced, strengthened, and refocused on TQM. If training should include practical implementation in companies, rather than be solely devoted to theories and classroom exercises. On the job training should be designed into the course. Companies should find the IE graduate immediately useful on the first day of work since they will be asked to set up quality and productivity systems.

INCORPORATION NEEDED

Specifically, industries need the following expertise, which should be incorporated into the new IE curriculum.

- Organizing the company under TQM
- Implementing continuous improvement (kaizen) programs
- Setting up statistical process control systems (SPC) control charts
- Doing process capabilities analysis (Cp, Cpk)
- Setting up quality cost monitoring systems

Quality function deployment (QFD)

Company-wide value analysis and value engineering (VA/VE) training & implementation

Instituting total productive maintenance programs (TPM)

Devising visual controls and poka-yoke (fool-proofing) mechanisms

Preparing the company for ISO 9000 certification

Initiating and sustaining 5S (housekeeping) programs

Implementing Just-In-Time (JIT) systems

Setting up gain-sharing incentive systems

Organizing self-managing teams (QC circles, productivity teams, etc.)

The industrial engineer should not look at himself as just a specialist, but as a manager and agent of change of the company. He should know how to set up systems, not just fix things or solve problems. He should know how to train all employees on IE skills-managers and rank and file alike - and speak their respective languages. The country needs industrial engineers dedicated to quality excellence. Industrial engineers can make a significant contribution in making the Philippines a tiger economy by year 2000.