TQM Implementation and its Dynamics

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A CLOSER LOOK AT TQM IMPLEMENTATION & ITS DYNAMICS

Quality is about
- Meeting Legal Requirement
- Meeting Public confidence and satisfaction
- Meeting Customers confidence and satisfaction
- Meeting internal performance goals
- and complying best practices

While Total Quality Management is a program to achieve the desired level of Quality
Evolution of ‘Quality’ Terminology

Standards
- Inspection, Testing & Labs

Chasing & Creating
- Product Standards

Chasing & Creating
- Cust Req’ts & Q.Objectives

Quality
- QC, QA, TQM (Certifications)

Excellence
- TQM, Quality Awards,
  Business Excellence Models
- Performance Excellence Models

The Objectives of TQM/QA

Total Quality Management

ORGANIZATIONAL SYSTEMS

Uniformity
Conformity
& Improvement

Policies, Processes, Outcomes
of Organizational Systems
Four Areas of TQM

- **TQM Tools/Methods**
  - BSC
  - QFD
  - FMEA
  - SPC
  - Qc Tools
  - Benchmarking
  - Reengineering
  - COQ
  - Six Sigma

- **TQM Models**
  - ISOs Stds
  - Quality Awards
  - Business Excellence Models

- **TQM Philosophy** (Core Values)
  - Customer Focus
  - Leadership (for Quality)
  - Vendors Relations
  - Process Approach
  - Systems Approach
  - Problem solving
  - Continual Improvement
  - Ethics & Social Norms

- **TQM Implementation Models**
  - McKinsey’s 4 Levels
  - UMIST’s 5 Levels
  - Crosby’s 5 Stages
  - Ghobadian’s Model
  - Oakland’s Model
  - MSAC Model

Most firms who start TQM do not achieve Maturity

- **Effectiveness**
  - **Starter**
  - **Amateur**
  - **Mature**

- **1st Year**
  - 80-90%

- **2nd Year**
  - 10-20%

- **3rd Year**
Background

1. **TQM / QA deals with** improving organizational performance and systems
2. Used in Pakistani industries and organizations since 1990’s; 20 years of experience in Pakistan
3. Only 10-30% success rate is commonly reported
4. TQM is Mature in some countries; immature in many, including Pakistan
5. Too many companies start these initiatives for 1-2 years and then abandon; very few cross the 3rd year
6. Sustainable and regular improvements are experienced only by handful of organizations in Pakistan and many other developing countries
7. Effective implementation was found in 15% firms, satisfactory in 25%; poor in 60%.  
   Ref: Moosa (2000)
8. 100 Conference papers on TQM practices from 1995 to 2005; most reported problems in implementation and integration with existing organizational culture

Systems Theory: The Foundation of Organizations

- ‘Processes’ and ‘systems’ are not the same
- 80% complaints, rejections or failures are because of failures in ‘Systems’ not ‘Processes’
Uniformity of ‘processes’ and ‘people’

DEPT A                     DEPT B                        DEPT C

DEPT A                     DEPT B                        DEPT C
**Consistency over time**

**TQM/QA**

- **2005**
- **2006**
- **2007**
- **2008**
- **2008**
- **2009**

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**What TQM does 70/20/10**

1. Analysis Incidences

   - **70%** (Processes Not followed) → **PROCESS CONTROL**
   - **20%** Process Not effective
   - **10%** Process Not suitable

   **STOP**
Quality, QA and Org’l Culture

Due to Poor Culture of Creativity & Involvement

Due to Poor Culture of Standardization

Culture of Standardization Needs improvement

Culture of Creativity & Involvement Needs improvement

1st Stage: Inspection oriented organizations

DESIGNING  MARKETING  Internal Mnt.

Purchasing  Lab  Production  Lab

ADMIN  FINANCE  HRD  IT
2nd Stage: QA based

- Monitoring Q Objectives
- Audits & Reviews
- Trainings
- Quality Improvement Teams
- Documentation

3rd Stage: Performance Excellence (through HoDs)

- Quality Leadership by HoDs
- Self Assessment
- Balanced Scorecard
- Quality Award

ICQI 2011 (May 2-3, 2011) Lahore - Pakistan
by Dr. Kamran Moosa
RESEARCH FINDINGS
TQM IN PAKISTAN, 2010

Ref:
Journal of Asian Business & Management
Vol 9, 4, 525-551, Jan 2010, Macmillan Publishers Ltd, UK
‘An empirical study of TQM Implementation: Examination of aspects versus impacts’
By Kamran Moosa, Ali Sajid, Rashid A. Khan & Anwar Mughal

Quality Losses in Pakistan (estimates)

• Rejections & Defects in manufacturing: Rs 2-200 Million per company per year, Rs 200 Billion per annum
• Rework 10-30%, (loss of one year after every three years)
• Losses in government, like line losses, in-efficiencies: Rs 400-500 Billion per annum
• Clinical Errors, Undesirable outcomes, lab errors 10-30%
• Tuition Costs (Rework in Education), estimated > 10 Million students studying (> Rs 10 Billion on tuition wastage)
• Average duration in which justice is provided? %age of persons to whom right justice is provided? Etc.
2: Effect of Provincial Background of firms

Boxplot of 58. EMPLOYEES Sat with jobs

3: Effect of Type of Organization

Boxplot of 36. RESOURCES to QA DEPT
4: Effect of Size of Organization

Boxplot of `OVRL FIN PERFORMANCE` by Size:
- 201-500
- 501-1000
- 51-200
- greater than 1000
- less than 50

5: Effect of Head of TQM Program

Boxplot of `STRENGTH OF QA PROGRAM` by Head of TQM:
- A special committee
- CEO
- Junior level position
- Senior level Position
6: Effect of ISO 9000 effective implementation

Cost of Quality - Trend Analysis

Total COQ
Failure (Total)
Failure (Internal)
Appraisal
Prevention

Years

COQ as percent of Sales
CONCLUSIONS

Actions Required to Strengthen QA

1. Proper QA Structure
2. Proper Quality related KPI and Quality Objectives
3. Proper Process Control and Process Capability Analysis (Cp>1.0)
4. Proper Labs with <10% measuring error
5. Effective ISO 9001, not just documentation
6. Sufficient know-how on QA in org’s through sufficient and effective training at each level (CEOs, HODs, QA Mgrs, Supervisors)
7. Building and struggle for a culture of STANDARDIZATION
8. Decentralized QA System
9. Effective 1st & 2nd Party Audits
10. Genuine Intent, Interest, and Initiatives for QA
Conclusions

1. Organizations comprises of its ‘Systems’; Systems should drive processes efficiently and effectively. We need TQM to strengthen ‘systems’.

2. Most companies implementing ISO/TQM programs have not deployed it effectively; resulting in incompetence of organizations to deal with quality issues and crises. Immediate consideration is required to revitalize Quality programs in organizations in today’s scenario.

3. Government, Academia, service, educational and healthcare sectors and many manufacturing firms need to design an effective TQM programs within their organizations to ensure Quality & Sustainability of their organizations.

4. To increase the rate of success of TQM programs is our collective responsibility. CEOs, Q Mgrs, HoDs, Quality Auditors/Assessors and Consultant all have to strengthen their abilities to do so.

5. TQM is available through various programs, models and frameworks like ISO standards, PMQA, Accreditation Models and Tools like Quality Circles, Kaizen, TPM, Six Sigma, SPC, and BSC. Learning followed by deployment of TQM should not be neglected any more. It’s crucial for organizational growth and organizational success.
Towards a World-Class Pakistan