

## **Course 11:**

# **TQM in Algerian Context: Mechanisms for Preparing Algerian Institutions to Obtain ISO 9000 Certification**

**Module by Prof.SOULEH Samah**

Lectures for second-year Master's students in  
Economics and Business Management.

Department of Economic Sciences

– University of Biskra.

# 1. Introduction: Why ISO 9000 Certification?

- The **ISO 9000 family** provides internationally recognized standards for quality management systems (QMS).

For Algerian institutions—public, industrial, educational, or service-oriented—obtaining ISO 9000 certification is a strategic necessity to:

- Improve overall organizational performance
- Reduce errors and variation in processes
- Strengthen credibility with national and international partners
- Increase customer and stakeholder satisfaction
- Comply with market requirements and state modernization initiatives
- Align with programs such as Algeria's national industrial modernization efforts and ALGERAC accreditation rules
- ISO 9001:2015 is the most widely applied standard within the ISO 9000 family.

## 2. Prerequisites for Engaging in an ISO 9000 Certification Process

### 2.1. Commitment of Top Management

This is the most important success factor. The leadership must:

- Adopt and communicate a clear **Quality Vision**
- Allocate the necessary human and financial resources
- Appoint a **Quality Manager** and a **Quality Steering Committee**
- Support long-term continuous improvement
- Without strong leadership involvement, the certification process becomes purely formal and ultimately fails.

- **2.2. Initial Diagnosis (Gap Analysis / Audit 0)**

**Objective:** assess where the institution currently stands compared to ISO 9001 requirements.

This diagnosis includes:

- Documentation review
- On-site observations
- Employee interviews
- Identification of gaps between current practices and ISO 9001 standards

This step ends with a **diagnostic report** and a **corrective action plan**.

## 3. Operational Mechanisms for Preparing for ISO Certification

### 3.1. Training and Awareness

All employees—especially managers—must understand:

- The principles of ISO 9000
- The process approach
- Risk-based thinking (according to the High-Level Structure)
- Quality tools (PDCA, Ishikawa, Pareto, 5 Why, 5M)
- How to write procedures and records
- Internal auditing skills

In Algeria, institutions often rely on **consulting firms, national institutes, sectoral training centers, or certified auditors** for this step.

## 3.2. Process Mapping

ISO 9001 requires organizations to adopt a **process-based approach**.

Institutions must identify and classify their processes into:

### **Management Processes**

- Strategic planning, leadership, QMS monitoring.

### **Operational/Core Processes**

- Production, service delivery, teaching and learning (for universities), logistics, customer service.

### **Support Processes**

- Human resources, finance, maintenance, IT, procurement.
- Tools used for mapping:
- SIPOC diagrams
- Process flowcharts
- Interaction matrix between processes
- This mapping forms the backbone of the QMS.

### 3.3. Development of QMS Documentation

Institutions must develop a structured documentation system including:

- **Mandatory documents**
- **Quality Policy**
- **Quality Objectives**
- Procedures for: document control, risk management, internal audit, corrective actions, customer satisfaction
- **Records** showing evidence of conformity

#### **Recommended documents (especially in Algeria)**

- **Quality Manual** (optional in the 2015 version, but still highly useful and often requested locally)

#### **Examples specific to Algerian sectors:**

- **Industry:** production control plans, traceability procedures
- **University:** course delivery processes, exam procedures, student satisfaction surveys
- **Administration:** service delivery procedures, request processing delays

### 3.4. Implementation of the QMS

After designing the system, the institution must apply it consistently.

Key actions include:

- Deploying procedures throughout the organization
- Training employees to use the new tools and forms
- Setting up **KPIs (Key Performance Indicators)**
- Monitoring non-conformities
- Conducting regular meetings on QMS performance
- Integrating risk-based approaches

Common indicators in Algerian institutions:

- Complaint rate
- Product/service conformity rate
- On-time delivery rate
- Cost of poor quality
- Employee training rate

### 3.5. Continuous Improvement and Performance Monitoring

ISO's philosophy is based on the **PDCA cycle**:

- **Plan – Set objectives and develop processes**
- **Do – Implement the processes**
- **Check – Monitor performance using KPIs and audits**
- **Act – Implement corrective and preventive actions**

Tools such as **Kaizen**, **Root Cause Analysis**, and **5W2H action plans** help institutionalize improvement.

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**The 5W2H action plan** is a method for creating a comprehensive plan by answering seven key questions: **What** will be done, **Why** will it be done, **Where** will it be done, **When** will it be done, **Who** will do it, **How** will it be done, and **How much** will it cost.

## 4. Internal Audits (Mandatory Step)

Internal audits verify whether:

- Processes are implemented as planned
- Documentation is controlled
- Staff understand their roles
- Records are properly maintained

Types of audits:

- **Internal Audit** (performed by trained employees or external consultants)
- **Pre-certification Audit** (audit “zero” before official certification)
- **Certification Audit** (performed by an accredited body)

Output of an audit:

- Major non-conformities
- Minor non-conformities
- Observations
- Opportunities for improvement

## 5. Choosing a Certification Body in Algeria

Commonly used certification bodies include:

- **IANOR (Institut Algérien de Normalisation)**
- **SGS Algeria**
- **Veritas Algeria**
- **TÜV Rheinland**
- **AFNOR (Algeria office)**
- Other ALGERAC-accredited certification bodies

Important selection criteria:

- International accreditation (ISO/IEC 17021)
- Experience in the sector
- Credibility and reputation
- Cost and audit duration

# 6. Phases of the ISO 9001 Certification Audit

ISO certification generally follows these steps:

## Phase 1: Documentation Review

- Evaluates the conformity of QMS documents
- Ensures readiness for the on-site audit

## Phase 2: On-site Audit

- Observes real practices
- Interviews managers and employees
- Reviews records and KPIs

## Result

- If all major non-conformities are addressed, the institution receives certification **valid for three years**, with annual surveillance audits.

# 7. Common Challenges for Algerian Institutions

## **Organizational Challenges**

- Resistance to change
- Lack of quality culture
- Bureaucratic habits

## **Human and Financial Challenges**

- Budget limitations
- Limited number of trained quality specialists

## **Regulatory and Operational Challenges**

- Complex administrative procedures
- Weak digitalization in some sectors

## 8. Success Factors in the Algerian Context

- Strong leadership and clear vision
- Effective communication across all departments
- Employee involvement at every stage
- Investment in training and capacity building
- Reliable monitoring tools and KPIs
- Regular audits and structured improvement plans
- Engagement with certified consultants

## 9. Case Study Example: Algerian University Seeking ISO 9001 Certification

**Objective: Certify the university's administrative and pedagogical processes.**

Steps:

- Perform a diagnostic of teaching, exams, and student services processes
- Establish a Quality Committee (Dean, Vice-Dean, Department Heads)
- Map core processes: registration → teaching → evaluation → graduation
- Implement indicators: student satisfaction, exam delays, course delivery conformity
- Conduct internal audits and develop corrective actions
- Undergo certification audit
- Develop a culture of continuous improvement (digitalization, surveys, training)

# 10. Conclusion

Preparing for ISO 9000 certification requires:

- A structured management system
- Strong leadership commitment
- Well-defined processes
- Proper documentation
- Continuous improvement
- Qualified auditors

For Algerian institutions, certification is both a challenge and an opportunity to modernize, enhance performance, and increase competitiveness.