

(A new approach in)

*Process Maturity Model – Standardization & Productivity
Quality Management*

“QM – PMM (S&P)”



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The concept of quality engineering in today's business world is a vital and well-known concept for human beings. The world has undergone significant changes in the field of quality management (QM) in recent decades, so that many previous relationships and equations have been fundamentally changed.

These developments have started with the focus on the widespread use of standards related to quality management and increasing productivity and now, it is possible with the evolution in the field of efficient and effective implementation and operationalization of these standards, uses quality management (QM) as a tool for business maturity in various business areas (industry or guilds).

This great change has brought many requirements and consequences that most important of which is the emergence of new concepts of excellence model related to quality management (QM). Systems of rules, methods, standards and tools that are even more binding than conventional contracts and traditional methods, as well as ensure the efficiency and effectiveness of quality management principles.

The "Process Maturity - Standardization and Productivity" model related to quality management (QM) in business environments has always been emphasized as one of the basic infrastructures and requirements in the development and inclusive use of that environment.

Although achieving the level of absolute maturity in the field of quality management (QM) in any part of the business is practically unattainable, but creating an efficient and effective level of maturity is a process related to quality management that has been done sufficiently and commensurate with the needs and localized investments will be possible in almost all environmental conditions and in any business area. It is only by providing such a desirable level that individuals, organizations, private companies and government agencies, while trusting and relying on the various parties that are all involved in a business exchange and they will probably never see or know each other, they can play their expected and effective role associated with increasing business maturity in various areas of the quality management (QM) industry.

Although the designing, implementation and operationalization of quality management system has been perceived and implemented as a necessity for most businesses, but in today's world, the implementation and operationalization of "process maturity - standardization and productivity" has become particularly important for all businesses.

The results of organizational business continuity with the help of implementation and operationalization of the "Process maturity - standardization and productivity" model are very desirable and effective but the risks of doing it in the form of unknowingly and without initial evaluation, the lack of appropriate managerial support, and the lack of efficient and effective culture-building will be very high. This model is a tool to improve the designing, implementation and operationalization of quality management engineering for all natural and legal persons that are active or related to the subject of quality management (QM). This model is also very effective for obtaining valid (and not demonstrative) standard certifications related to quality management for enterprises.

The "Process Maturity - Standardization and Productivity" model offers the following three categories to meet the needs of enterprises related to quality management engineering (QM):

- 1. **Process Improvement:** Improving quality processes enables the enterprise with using the principles of quality management engineering acquire effective, efficient and updated ideas and solutions related to the level of ability and progress of processes related to the implementation and operationalization of quality management (QM).*
- 2. **Capability Evaluation:** Capability evaluation allows the stakeholders of an enterprise to gain an understanding of the level of capability of that enterprise related to the implementation and operationalization of quality management engineering.*
- 3. **Assurance:** Increases the enterprise's confidence in the reliable product, system and services it wants to provide to all its stakeholders.*

***Expected results of "Process Maturity - Standardization and Productivity" model:** After implementing and operationalizing this model in an enterprise, it is expected that the following results will be obtained for that enterprise:*

- Improving predictability*
- Improved controls*
- Improving effectiveness*

Before entering the main stages of preparing the "Process Maturity-Business Standardization and Productivity" document and localization of methodologies and standards related to quality management and business continuity management, first an initial understanding of the current situation in the relevant business will be made. At this stage, information is obtained at the general level in that enterprise by using documented and existing checklists.

The different levels of this stage are:

- 1. Strategic Level*
- 2. Capital Level*
- 3. Operational Level*
- 4. Quality Level*

The structure of this activity is as follows to provide the necessary guidelines for the initial assessment and to meet the expectations of the levels mentioned above:

- A- Planning and Organizing*
- B- Achieving and Implementing*
- C- Presentation and Support*
- D- Monitoring and Evaluation*

A- Planning and Organizing

This area examines issues related to strategies and tactics related to the process of standardization and productivity of quality management systems and business continuity management, Identifying the strategies through which the enterprise has the greatest possible Effect in achieving business goals related to this type of standardization and productivity processes are also among the issues that can be studied in this field.

- 1. Is the strategy of quality management and management of business continuity in the enterprise in line with the business strategy of that enterprise?*
- 2. Does enterprise make optimal use of resources related to quality management and business continuity management?*

3. *Do employees of enterprise have a clear understanding of the goals and conditions of product production and service delivery in relation to covering the goals of quality management and business continuity management?*
4. *Are the risks associated with quality management and business continuity management identified and managed?*
5. *Are the productivity of products and services in the enterprise commensurate with the objectives of quality management and business continuity management?*

A-1- The processes that are reviewed in this area in relation to quality management and business continuity management are:

1. *Defining a strategic plan.*
2. *Defining architecture and information structure.*
3. *Determining the direction and technological orientation.*
4. *Defining technological processes, organizations and relationships.*
5. *Investment management.*
6. *Information about management goals and orientations.*
7. *Human resources management*
8. *Productivity management*
9. *Risk assessment and management*
10. *Project management*

B- Achieving and Implementing

In order to realize business strategies related to the implementation and operation of quality management and business continuity management in the enterprise, the efficient and effective solutions required for quality management and business continuity management processes must be identified, created, implemented and operationalized and then be integrated in line with the business processes of that enterprise.

This area addresses the following management questions:

- 1. Can new projects in the field of quality management and business continuity management meet the needs of the business?*
- 2. Do new projects in the field of quality management and business continuity management take into account time constraints and budget constraints?*
- 3. If new systems are implemented in the field of quality management and business continuity management, can these systems meet the requirements and business needs of the enterprise?*
- 4. Do the changes that take place in the field of quality management and business continuity management cause confusion in the performance and business operations of the enterprise?*

B-1- *The processes that are examined in this area and in relation to the implementation and operationalization of quality management and business continuity management are:*

- 1. Identifying automated solutions*
- 2. Acquisition and strengthening of functional products*
- 3. Infrastructure Achieving and Strengthening*
- 4. Empowering business operations and their applications*
- 5. Change Management*
- 6. Operationalization and approval of strategies and changes related to the business of the enterprise*

C- Providing and support

This area is related to strategic and control processes related to the implementation and operationalization of quality management and business continuity management in an enterprise, including the type of service / product delivery, business continuity management, productivity management, user support and data management.

This area addresses the following management questions:

- 1. Are the services provided in the field of quality management and business continuity management in line with the business priorities of the enterprise?*
- 2. Are the costs (anticipated or realized) related to quality management and business continuity management optimal?*
- 3. Are the activities of all human resources optimally to be related to the infrastructure related to the implementation and operation of quality management and business continuity management?*

C-1- The processes that are examined in this area and in relation to the implementation and operationalization of quality management and business continuity management are:

- 1. Defining and managing the levels of services and products of the enterprise*
- 2. Managing the Services of Contractors and Third parties*
- 3. Performance and Capacity Management*
- 4. Continuous Service Guarantee*
- 5. Quality assurance of systems*
- 6. Identifying and allocating costs*
- 7. Users Training*
- 8. Configuration Management*
- 9. Problem Management*
- 10. Data Management*
- 11. Operation Management*

D- Monitoring and Evaluation

Productivity and alignment of all business processes of an enterprise associated the designing, implementation and operation of quality management and business continuity management and in order to determining the requirements of supervision and control, should be systematically evaluated.

This area addresses the following management questions:

- 1. Can management ensure that the quality control tools associated with quality management and business continuity management are effective and efficient?*
- 2. Are risks, controls, compatibility, alignment and performance related to quality management and business continuity management assessed and reported?*

D-1- The processes that are examined in this area and in relation to the implementation and operationalization of quality management and business continuity management are:

- 1. Monitoring and evaluating the enterprise performance.*
- 2. Monitoring and evaluation of internal control.*
- 3. Ensuring the compatibility of quality management processes and business continuity management with the legal, contractual and by-laws requirements related to the business of the enterprise.*
- 4. Realizing the management of enterprise processes by considering the issue of integration with quality management systems and business continuity management.*

In order to fulfill the issues presented in paragraphs (a) to (d), the model of "process maturity - standardization and productivity" propose IDEAL cycle related to the quality management system.

1. Initiating Phase

- 1.1. Stimulus for Change*
- 1.2. Establishing Context*
- 1.3. Building Sponsorship*
- 1.4. Charter Infrastructure*

2. Diagnosing Phase

- 2.1. Characterizing Current and Desired State*
- 2.2. Developing Recommendations*

3. Establishing Phase

- 3.1. Setting Priorities*
- 3.2. Developing Approach*
- 3.3. Plan Actions*

4. Acting Phase

- 4.1. Create Solution*
- 4.2. Test/Pilot Solution*
- 4.3. Refine Solution*
- 4.4. Install Solution*

5. Learning Phase

- 5.1. Analyze and Validate*
- 5.2. Propose Future Actions*

Maturity model levels in order to measure the maturity level of implementation and operationalization of quality management system (QM), are:

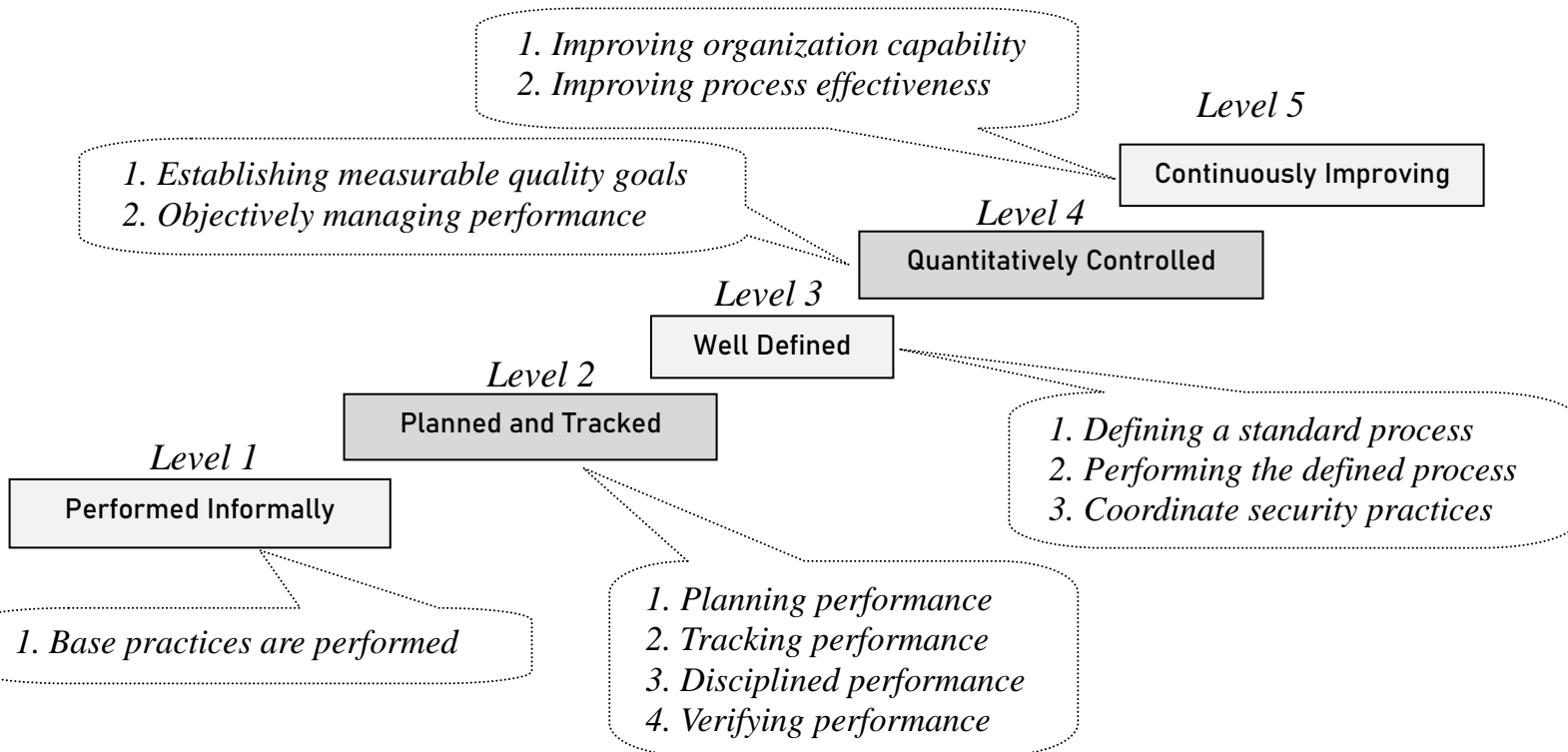
Capability Level 1 - Performed Informally

Capability Level 2 - Planned and Tracked

Capability Level 3 - Well Defined

Capability Level 4 - Quantitatively Controlled

Capability Level 5 - Continuously Improving



1. Capability Level 1-Performed Informally

1.1. Base Practices Are Performed

1.1.1. Perform the Process

2. Capability Level 2- Planned and Tracked

2.1. Planning Performance

2.1.1. Allocate Resources

2.1.2. Assign Responsibilities

2.1.3. Document the Process

2.1.4. Provide Tools

2.1.5. Ensure Training

2.1.6. Plan the Process

2.2. Disciplined Performance

2.2.1. Use Plans, Standards, and Procedures

2.2.2. Do Configuration Management

2.3. Verifying Performance

2.3.1. Verify Process Compliance

2.3.2. Audit Work Products

2.4. Tracking Performance

2.4.1. Track with Measurement

2.4.2. Take Corrective Action

3. Capability Level 3-Well Defined

3.1. Defining a Standard Process

3.1.1. Standardize the Process

3.1.2. Tailor the Standard Process

3.2. Perform the Defined Process

3.2.1. Use a Well-Defined Process

3.2.2. Perform Defect Reviews

3.2.3. Use Well-Defined Data

3.3. Coordinate Security Practices

3.3.1. Perform Intra-Group Coordination

3.3.2. Perform Inter-Group Coordination

3.3.3. Perform External Coordination

4. Capability Level 4-Quantitatively Controlled

4.1. Establishing Measurable Quality Goals

4.1.1. Establish Quality Goals

4.2. Objectively Managing Performance

4.2.1. Determine Process Capability

4.2.2. Use Process Capability

5. Capability Level 5-Continuously Improving

5.1. Improving Organizational Capability

5.1.1. Establish Process Effectiveness Goals

5.1.2. Continuously Improve the Standard Process

5.2. Improving Process Effectiveness

5.2.1. Perform Causal Analysis

5.2.2. Eliminate Defect Causes

5.2.3. Continuously Improve the Defined Process

