

# **Quality Maturity Analysis**

Prepared for:  
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Boise State University  
Dr. Thomas Foster, Instructor

Prepared by:  
Patti Casto  
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Quality maturity analysis [QMA] may be defined as an assessment of an organization's level of maturity in relation to the quality system it has chosen to operate within. The assessment may take on different forms depending on the type of organization, quality system employed, current level of quality maturity, or other factors.

The goal of all quality management systems is continuous, measurable improvement in quality related to the production of goods and services, and overall organizational operating excellence. Quality maturity analysis is a tool that enables an organization to evaluate its progress toward quality goals, and in setting new goals.

A good time for an organization to perform its first QMA is prior to, or in the process of selecting a quality management system to adopt. A thorough assessment of current quality levels and practices will assist the organization in selecting the quality system that provides the best fit for the organization's products, culture, and business strategy. This prior assessment will also point out existing strengths and weaknesses, and define additional resources that will be required to begin implementation of the quality system.

Once a quality system is selected, and a continuous improvement strategy is developed, regular benchmarking of measured progress to established plan goals should be performed using QMA as a tool to perform the assessments.

Hewlett Packard has employed a form of QMA that it terms “Quality Maturity System” reviews as a part of the Total Quality Control system adopted by the company in the late 1970’s. Each business unit within HP has a QMS review every two years at a minimum, the time-frame of repeat reviews may be shortened if urgent improvement goals are set by the business unit managers and the reviewers.

The QMS review process has three objectives:

- ❖ To develop understanding of the strengths and weaknesses of the business unit in implementation of TQM.
- ❖ To provide expert consultation by the reviewers to assist and guide business unit managers in the implementation of TQM.
- ❖ To identify best practices within individual business units and share them across the HP organization as a whole.

A review normally lasts two days, it is performed by a team of two company trained and certified reviewers; with at least one of them being a HP quality manager. The second reviewer may be a business unit manager of another product line who is familiar with quality methods and the QMS review procedure.

During performance of the review, the purpose or underlying intent of the review is to assist and support the business unit being reviewed in making positive progress toward quality goals, not to find what is “wrong” with its practices. Five critical areas are the focus of the review process:

- ❖ Planning – how the business unit develops its strategic plan and how effectively it is implemented.

- ❖ Customer Focus – how the business unit identifies/stratifies customers, understanding of customer needs and analysis/response to customer feedback.
- ❖ Process Management – how products and services are delivered to customers, does the business unit function as in integrated organization? Is clear ownership of processes exhibited and are SPC procedures employed to ensure process integrity?
- ❖ Improvement cycle – evidence that customer data is used in the Plan-Do-Check-Act problem solving process.
- ❖ Total participation – How actively the organization enlists the active support of all employees in its quality model.

The reviewers use a tightly structured agenda in order to complete the review in a timely manner, typically the review agenda is as follows<sup>1</sup>:

<u>AGENDA ITEM</u>	<u>PARTY REVIEWED</u>	<u>TIME ALLOWED</u>
Business Overview	General Manager	½ hour
Planning	Management Team	3 hours
Customer Focus	Marketing/Quality	2 hours
Departmental Reviews	Functional Mgrs.	3 ½ hr. each
- Process Mgmt.		
- Improvement Cycle		
Participation	General Manager Quality/Personnel	1 hour
Quality Contribution	Quality	1 hour

The reviewers provide initial feedback to the business unit team at the end of the second day of the review. A full written report of the review is provided to the business unit managers within two weeks. The report includes assessment of observed strengths and weaknesses; and recommended actions to address weaknesses. The business unit

<sup>1</sup> Harrington, Brad. Hewlett-Packard's Quality Maturity System; Center for Quality Management Journal, Winter 1993

management team then has one to two months to develop a corrective action plan and submit it to the reviewers.

Quality maturity analysis in the end is about the journey an organization takes on the continuous improvement path, it may result in an organization continuing to evolve within the same quality model, point out a need supplement the current model with another, or to adopt an entirely new model.

The following resources were used in the preparation of this paper, and provide more information on quality maturity as it is applied and used in different quality models and industries:

Breen, Ken, et al., *A Direction: Integrated Management Systems*;  
<http://www.qualitydigest.com/aug97/html/ims.html>

Harrington, Brad *Hewlett-Packard's Quality Maturity System*; Center for Quality of Management Journal, Volume 2, Number 1, Winter 1993, online: <http://www.CQM.org>

Hattrick, Mary and Hutchison, Eugene, *Moving from QMS Conformance to Business Excellence in Telecom*;  
<http://www.qualitydigest.com/april02/html/ti9000.html>.

Pryzdek, Thomas, *Why Six Sigma is not TQM*;  
<http://www.qualitydigest.com/feb01/sixsigma.html>

*The Five Levels of Software Process Maturity*;  
[http://www2.umassd.edu/SWPI/sei/tr24f/tr24\\_c2.html](http://www2.umassd.edu/SWPI/sei/tr24f/tr24_c2.html);